# Hidden Falls Regional Park

# Trails Expansion Project

# Subsequent Draft Environmental Impact Report

February 2020

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*Prepared for:*

Placer County Department of Public Works
Parks Division
3091 County Center Drive
Auburn, CA 95603

Contact Info:
Lisa Carnahan, Senior Planner
Placer County Parks Division
(530) 889-6837
lcarnaha@placer.ca.gov

*Prepared by:*

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact Info:

Ken Koch, Project Manager
Ken.Koch@aecom.com
(916) 414-5800

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H Hydrology Report for Bridge Crossing

I Biological Resources Appendices

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K Environmental Site Assessments

# ACRONYMS AND OTHER ABBREVIATIONS

| | |
|---|---|
| °C | degrees Celsius |
| °F | degrees Fahrenheit |
| $\mu g/m^3$ | micrograms per cubic meter |
| 2007 SIP | State Strategy for the State Implementation Plan for Federal $PM_{2.5}$ and 8-Hour Ozone Standards |
| 2014 Scoping Plan Update | First Update to the Climate Change Scoping Plan: Building on the Framework |
| 2017 Scoping Plan Update | California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target |
| AADT | Annual Average Daily Traffic |
| AATCM | Asbestos Airborne Toxic Control Measure |
| AASHTO | American Association of State Transportation and Highway Officials |
| AB | Assembly Bill |
| ACM | asbestos-containing materials |
| ADA | Americna with Disabilities Act |
| ADAM | California Air Resources Board, Aerometric Data Analysis and Measurement System |
| ADMP | Asbestos Dust Mitigation Plan |
| ADT | average daily traffic |
| AG | Agriculture (zoning) |
| amsl | above mean sea level |
| ANSI | American National Standards Institute |
| APCD | Air Pollution Control District |
| APCO | Air Pollution Control Officer |
| APE | Area of Potential Effects |
| API | American Petroleum Institute |
| AQMDs | air quality management districts |
| ARB | California Air Resources Board |
| AST | aboveground storage tanks |
| ASTM | American Society for Testing and Materials |
| ATC | Authority to Construct |
| ATCM | airborne toxics control measure |
| Attainment and Progress Plan | Sacramento Regional 2008 National Ambient Air Quality Standard 8-Hour Ozone Attainment and Reasonable Further Progress Plan |
| ATV | all-terrain vehicle |
| B.P. | before present |

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|---|---|
| BACT | best available control technology |
| Basin Plans | water quality control plans |
| bbls | billion barrels |
| bbls/yr | billion barrels per year |
| Bikeway Plan | Placer County Regional Bikeway Plan |
| bgs | below ground surface |
| BLM | U.S. Bureau of Land Management |
| BMP | best management practice |
| Board | State Boards of Forestry and Fire Protection |
| BRP | Bear River Preserve |
| Btu | British thermal unit(s) |
| CAA | Clean Air Act |
| CAAA | Clean Air Act Amendments of 1990 |
| CAAQS | California ambient air quality standards |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Cal/EPA | California Environmental Protection Agency |
| Cal/OSHA | California Department of Industrial Relations, Division of Occupational Safety and Health |
| CalEEMod | California Emission Estimator Model |
| CALGreen Code | California Green Building Standards Code |
| CalRecycle | California Department of Resources Recycling and Recovery |
| Caltrans | California Department of Transportation |
| CBC | California Building Standards Code |
| CC | Central Commercial |
| CCAA | California Clean Air Act |
| CCR | California Code of Regulations |
| CDFG | California Department of Fish and Game |
| CDFW | California Department of Fish and Wildlife |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act of 1980 |
| CESA | California Endangered Species Act of 1970 |
| CFR | Code of Federal Regulations |
| CG | General Commercial (zoning) |
| CGS | California Geological Survey |

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| CHHSL | California Human Health Screening Levels |
| CHP | California Highway Patrol |
| CLM | California Land Management |
| cm | centimeter(s) |
| CNDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNPS | California Native Plant Society |
| CNU | Coalinga Noise Unit |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| Commission | Placer County Planning Commission |
| Cortese list | California Department of Toxic Substances Control Hazardous Waste and Substance Site list |
| County | Placer County |
| CPUC | California Public Utilities Commission |
| CRHR | California Register of Historic Resources |
| CRPRs | California Rare Plant Ranks |
| CUP | conditional use permit |
| CUPA | Certified Unified Program Agency |
| CWA | Clean Water Act |
| dB | decibel |
| dBA | A-weighted decibels |
| dBA/DD | A-weighted decibels per doubling of distance |
| dbh | diameter at breast height |
| DEH | Placer County Department of Environmental Health |
| DEIR | draft environmental impact report |
| Delta | Sacramento–San Joaquin Delta |
| DHS | California Department of Health Services |
| DOC | California Department of Conservation |
| DOGGR | Division of Oil, Gas, and Geothermal Resources |
| DOT | U.S. Department of Transportation |
| DPM | diesel particulate matter |
| DPR | California Department of Parks and Recreation |
| DPW | County Department of Public Works |
| DTSC | California Department of Toxic Substances Control |

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| DWR | California Department of Water Resources |
| EIR | environmental impact report |
| EMD | Environmental Management Department |
| EMS | emergency medical services |
| EOR | Enhanced Oil Recovery |
| EPA | U.S. Environmental Protection Agency |
| ERP | Emergency Response Plan |
| ESA | environmental site assessment |
| ESC | East Side Canal |
| ESD | County Department of Public Works, Engineering and Surveying |
| ESU | evolutionary significant unit |
| F | Farm (zoning) |
| FEIR | final environmental impact report |
| FEMA | Federal Emergency Management Agency |
| FHSZ | Fire Hazard Severity Zone |
| FHWA | Federal Highway Administration |
| FHWA-RD-77-108 | FHWA Highway Noise Prediction Model |
| FMMP | Farmland Mapping and Monitoring Program |
| FTA | Federal Transit Administration |
| FWKO | Free Water Knockout |
| GC | General Commercial (General Plan designation) |
| General Plan | County of Placer General Plan |
| GHG | greenhouse gas |
| GLO | General Land Office |
| gpm | gallon(s) per minute |
| GPS | global positioning system |
| GWh | gigawatt-hours |
| GWP | global warming potential |
| HAP | hazardous air pollutant |
| HCP | Habitat Conservation Plan |
| HDPE | high-density polyethylene |
| HDR | High Density Residential |
| HEPA | High Efficiency Particulate Air |
| HFRP | Hidden Falls Regional Park |
| HMA | Hot Mix Asphalt |
| HMBP | Hazardous Materials Business Plan |

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|---|---|
| HDM | Highway Design Manual |
| hp | horsepower |
| HVAC | heating, ventilation, and air conditioning |
| Hz | Hertz |
| I-80 | Interstate 80 |
| ICE | internal combustion engines |
| in/sec | inches per second |
| ISO | Insurance Services Office |
| kBtu | thousand British thermal units |
| kV | kilovolt |
| LAMP | Local Agency Management Program |
| lb/day | pound(s) per day |
| LBP | lead-based paint |
| LDL | Larson Davis Laboratories |
| LDR | Low Density Residential |
| $L_{dn}$ | day-night noise level |
| LED | light-emitting diode |
| Legacy | Placer Legacy Open Space and Agricultural Conservation Program |
| $L_{eq}$ | equivalent noise level |
| $L_{eq}$[h] | A-weighted equivalent sound level |
| $L_{max}$ | maximum noise level |
| $L_{min}$ | minimum noise level |
| LOS | level of service |
| LRA | Local Responsibility Area |
| LRV | light rescue vehicle |
| MACT | maximum available control technology |
| MBTA | Migratory Bird Treaty Act |
| MCL | Maximum contaminant level |
| MDR | Medium Density Residential |
| MFI | shallow mortar (Cultural) |
| $mg/m^3$ | milligrams per cubic meter |
| mgd | million gallons per day |
| MLD | Most Likely Descendant |
| MMBtu/hr | million British thermal units per hour |
| MMRP | mitigation monitoring and reporting program |
| MMscf/yr | million standard cubic feet per year |

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|---|---|
| mph | miles per hour |
| mpi | minutes per inch of drop |
| MPO | metropolitan planning organization |
| MS4 | Municipal Separate Storm Sewer System |
| msl | mean sea level |
| MT | metric tons |
| MTP | Metropolitan Transportation Plan |
| MUP | minor use permit |
| MUTCD | California Manual of Uniform Traffic Control Devices |
| MW | megawatts |
| MWh/yr | megawatt hours per year |
| NAAQS | national ambient air quality standards |
| NAHC | Native American Heritage Commission |
| NCC | Natomas Cross Canal |
| NCCP | Natural Community Conservation Plan |
| NCIC | North Central Information Center |
| NEHRP | National Earthquake Hazards Reduction Program |
| NEHRPA | National Earthquake Hazards Reduction Program Act |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NFPA | National Fire Protection Association |
| NHTSA | National Highway Traffic Safety Administration |
| $NO_2$ | nitrogen dioxide |
| NOAA | National Oceanic and Atmospheric Administration |
| NOP | notice of preparation |
| $NO_X$ | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priorities List |
| NRCS | U.S. Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| O&M | operations and maintenance |
| OCP | Oil Cleaning Plants |
| OHP | Office of Historic Preservation |
| OPR | Governor’s Office of Planning and Research |
| OSHA | Occupational Safety and Health Administration |
| Ozone Attainment Plan | Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Ozone Attainment Plan |

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|---|---|
| P&A | Plugging and abandonment |
| park | Hidden Falls Regional Park |
| PCAPCD | Placer County Air Pollution Control District |
| PCBs | polychlorinated biphenyls |
| PCCP | *Placer County Conservation Program* |
| PCT | Placer County Transit |
| PEA | Preliminary Endangerment Assessment |
| PERP | Portable Equipment Registration Program |
| PG&E | Pacific Gas & Electric Company |
| PGA | Peak horizontal ground acceleration |
| Plans | Grading and Drainage Plans |
| PLT | Placer Land Trust |
| PM | particulate matter |
| $PM_{10}$ | respirable particulate matter with an aerodynamic diameter of 10 micrometers or less |
| $PM_{2.5}$ | fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less |
| Porter-Cologne Act | Porter-Cologne Water Quality Control Act |
| ppb | parts per billion |
| ppm | parts per million |
| PPV | peak particle velocity |
| PRA | Public Recreation Area |
| PRC | California Public Resources Code |
| PRO | Public Recreation Ordinance |
| project area | Hidden Falls Regional Park and proposed trail network expansion project area |
| PSAR | preventive search and rescue |
| psi | pound(s) per square inch |
| PUC | Public Utility Commission |
| PVC | polyvinyl chloride |
| RAW | removal action workplan |
| REC | recognized environmental condition |
| Reporting Rule | Greenhouse Gas Reporting Rule |
| RMS | root-mean-square |
| ROG | reactive organic gases |
| RUCS | Rural-Urban Connection Strategy |
| R-Value | energy efficiency rating |

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|---|---|
| RWD | report of waste discharge |
| RWQCB | Regional Water Quality Control Board |
| SACOG | Sacramento Area Council of Governments |
| SAR | search and rescue |
| SARA | Superfund Amendments and Reauthorization Act of 1986 |
| SB | Senate Bill |
| Scoping Plan | Climate Change Scoping Plan |
| SCS | Sustainable Community Strategy |
| SDF | Solids Drying Facility |
| SEIR | Subsequent Environmental Impact Report |
| SEL | sound equivalent level |
| SENL | single-event [impulsive] noise level |
| SEPA | Special Event Permit Application |
| SFB | Shaded fuel breaks |
| SFNA | Sacramento Federal Nonattainment Area |
| SFR | Single Family Residential |
| SIP | state implementation plan |
| $SO_2$ | sulfur dioxide |
| $SO_X$ | oxides of sulfur |
| SPCC | Spill Prevention Control and Countermeasure |
| SR | State Route |
| SRA | Shaded riverine aquatic |
| SRA | State Responsibility Areas |
| State CEQA Guidelines | California Environmental Quality Act Guidelines |
| SVAB | Sacramento Valley Air Basin |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| T | Timberland (zoning) |
| TAC | toxic air contaminant |
| T-BACT | best available control technology for toxic air contaminant |
| TCCR | Transportation Corridor Concept Report |
| TCM | transportation control measure |
| TCR | tribal cultural resource |
| TOW | Temporary Observation Wells |
| TSCA | Toxic Substances Control Act |
| TWLT | center two-way left-turn |

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| typ | tons per year |
| UAIC | United Auburn Indian Community of the Auburn Rancheria |
| UIC | Underground Injection Control |
| UP | Use Permit Required |
| USACE | U.S. Army Corps of Engineers |
| USC | United States Code |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | United States Geological Survey |
| UST | underground storage tank |
| UWMP | urban water management plan |
| VCA | Voluntary Cleanup Agreement |
| VdB | vibration decibels |
| VMT | vehicle miles traveled |
| VOC | volatile organic compound |
| VRU | Vapor Recovery Unit |
| WCP | Water Cleaning Plant |
| WDR | waste discharge requirement |
| WEMCO | Trade name for dissolved gas flotation cells |
| WIP | Water Injection Plant |
| WS | Wetland Swales |
| WTP | water treatment plant |
| WWTP | wastewater treatment plant |

# 1.0 INTRODUCTION

## 1.1 BACKGROUND

In January of 2010, the Placer County Planning Commission (Commission) approved a Conditional Use Permit (CUP No. 20090391) and certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2007062084) which added the property formerly known as the Spears Ranch (979 acres) to the 221-acre portion of Hidden Falls Regional Park (HFRP) already open to the public. As part of the HFRP approvals, Placer County adopted Findings of Fact that indicated the EIR reflected the independent judgment of the County and that the Planning Commission reviewed the Final EIR (FEIR) and determined the FEIR considered a reasonable range of potentially feasible alternatives, sufficient to foster informed decision making, public participation and a reasoned choice.

The certified FEIR concluded all impacts associated with activities permitted under CUP No. 20090391 could be mitigated to less than significant levels except "Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road," identified as significant and unavoidable. Implementation of Mitigation Measures 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts, and 12-8: Protect Oak Woodland Habitat would reduce this impact; however, this impact would remain significant and unavoidable because no other screening options along Garden Bar Road were available and revegetation of the disturbed areas would not reduce visual impacts in the short-term. Included in the County's Findings of Fact was a Statement of Overriding Consideration describing the social, economic, and recreational benefits offered to County residents, which were found to outweigh the impacts.

Presently, the County is considering expansion of the HFRP trail network system onto conservation lands either owned by Placer Land Trust (PLT) or held in a Conservation Easement by PLT, with associated trail easements held by the County, and onto land owned by the County or where the County has easements. The project would increase the regional trail network and would provide new access and parking areas for the public. The approved Conditional Use Permit (CUP No. 20090391) would be modified to account for the expansion.

## 1.2 PURPOSE OF THIS DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

### 1.2.1 TYPE OF EIR

Once an EIR has been certified for a project, no new EIR need be prepared unless the project requires a discretionary action and a change in project or circumstances occurs that could:

- Add new significant impacts or
- Substantially increase the severity of previously identified significant impacts, or
- Add new information of substantial importance

If no new discretionary approvals required by lead or responsible agencies and conditions above occur, there is no need to conduct additional CEQA analysis. The proposed expansion and modification to existing CUP No. 20090391 were determined to be substantial new information that could increase impacts from those listed in the 2010 HFRP certified EIR.

Consequently, the County has elected to prepare this draft Subsequent Environmental Impact Report (SEIR) on the proposed HFRP Trails Expansion Project (Proposed Project, or Project). It has been prepared for the Placer County (County) Department of Public Works Parks Division in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.), the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), and the Placer County Environmental Review Ordinance found in Chapter 18 of the County Code.

The focus of this SEIR is to determine whether the Project and associated improvements would result in impacts not discussed in the prior Certified EIR, substantially increase the effect compared to that discussed in the prior Certified EIR or would be consistent with the findings of the prior Certified EIR. This SEIR will also identify additional alternatives to address the significant impacts of the proposed HFRP trail expansion. Consistent with CEQA Guidelines Section 15162, the analysis contained in the SEIR is limited to the incremental changes associated with construction and operation of the proposed trail expansion when evaluating whether the modifications to the original CUP would result in a significant impact. The existing HFRP is assumed to be part of the existing conditions. As required by CEQA, the County will consider the information presented in the SEIR when determining whether to approve, deny, or modify the proposed project.

## 1.3 SCOPE AND ORGANIZATION OF THIS SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

### 1.3.1 NOTICE OF PREPARATION

Once a decision is made to prepare a SEIR, the lead agency must prepare a Notice of Preparation (NOP) to inform all responsible and trustee agencies (agencies) and interested persons that a SEIR will be prepared (CEQA Guidelines Section 15082). The purpose of the NOP is to provide stakeholders with sufficient information describing the proposed project and its potential environmental effects to enable agencies and the public to make a meaningful response related to the scope and content of information to be included in the SEIR.

The County originally issued a NOP for the proposed Project in January of 2017. Subsequent to the release of the January 2017 NOP, the County approved the terms of a purchase and sale agreement that could lead to the acquisition of additional land with direct access to the existing trail network and provide additional opportunities for parking. Because of the changes in the proposed HFRP expansion areas from those identified in the January 2017 NOP, the County elected to release a Revised NOP in June 2018. The County also held two public scoping meetings on February 21, 2017 and June 14, 2018 for the proposed project to receive verbal comments on the project and environmental review process.

A determination of which impacts would be potentially significant was made for this project based on a comparison of the information presented in the Certified EIR prepared for the HFRP project, comments received as part of the public review process for the proposed expansion, and additional research and analysis of relevant project data by environmental professionals. The County has determined that the proposed HFRP Trails Expansion Project has the potential to result in environmental impacts on the following resources, which are addressed in detail in this SEIR:

- Land Use and Agricultural Resources
- Soils, Geology, and Seismicity
- Cultural Resources, including Tribal Cultural Resources
- Visual Resources
- Transportation and Circulation
- Air Quality
- Noise
- Hydrology and Water Quality
- Biological Resources
- Public Services and Utilities
- Hazardous Materials and Hazards
- Greenhouse Gas Emissions
- Wildfire

The analysis in this SEIR assumes the application of mitigation measures adopted by the 2010 Certified HFRP when making determinations regarding the level of significance for impacts of the current Project. Where additional mitigation was needed, these new measures have been identified and the adopted mitigation monitoring and reporting program (MMRP) updated to incorporate this new information. Consequently, the MMRP prepared for the current Project will supersede the 2010 HFRP MMRP adopted by the County in 2010.

### 1.3.2 ORGANIZATION OF THIS DOCUMENT

This SEIR is organized as follows:

**Chapter 1.0, "Introduction,"** summarizes the purpose, need, objectives, and scope of the proposed project; describes the purpose of the SEIR and provides an overview of the environmental review process for the project; discusses agency roles and authorities; and provides details on project scoping.

**Chapter 2.0, "Executive Summary,"** summarizes the conclusions of the environmental analysis and identifies mitigation measures where needed to address significant impacts.

**Chapter 3.0, "Project Description,"** describes the project's location; discusses the project's background, history, and objectives; and explains the components and features of the proposed project.

**Chapters 4.0 through 16.0** provide impact evaluations for the respective resource areas identified in Appendix G of the State CEQA Guidelines:

- Chapter 4.0, "Land Use and Agricultural Resources"
- Chapter 5.0, "Soils, Geology, Seismicity, and Mineral Resources"
- Chapter 6.0, "Cultural Resources and Tribal Cultural Resources"
- Chapter 7.0, "Visual Resources"
- Chapter 8.0, "Transportation and Circulation"
- Chapter 9.0, "Air Quality"
- Chapter 10.0, "Noise"
- Chapter 11.0, "Hydrology and Water Quality"
- Chapter 12.0, "Biological Resources"

- Chapter 13.0, “Public Services and Utilities”
- Chapter 14.0, “Hazardous Materials and Hazards”
- Chapter 15.0, “Greenhouse Gas Emissions and Energy”
- Chapter 16.0, “Wildfire”

Each Chapter begins with a summary of the environmental findings of fact from the prior EIR and, where applicable, lists the mitigation measures previously adopted by the County.[1] The sections next present updates to the environmental and regulatory setting where necessary and evaluate the environmental impacts of the Proposed Project, focusing on how the HFRP Trail Expansion areas and the increased number of park users generated by the proposed project would or would not change the conclusions of the prior environmental review. Where the Proposed Project would result in a more severe impact than the corresponding project impact described in the prior, certified EIR, additional mitigation measures are provided to reduce the impact. Finally, a residual impact determination is provided for each impact, as applicable: either “consistent with the prior analysis in the Certified EIR”, or a “new impact not previously considered”.

**Chapter 17.0, “Alternatives,”** describes the alternatives considered and eliminated for the proposed project; alternatives selected for further analysis, and the evaluation of the environmental effects of those alternatives.

**Chapter 18.0, “Other CEQA-Required Sections,”** describes significant unavoidable effects on the environment; irreversible or irretrievable commitments of resources; growth-inducing effects; and cumulative impacts.

**Chapter 19.0, “List of Preparers,”** lists individuals who participated in the preparation of this SEIR, presented according to organization and agency.

**Chapter 20.0, “References and Persons Consulted,”** lists the sources of information cited throughout this SEIR.

## 1.4 DEFINITION OF BASELINE

According to Section 15125 of the State CEQA Guidelines, baseline conditions are normally defined as the physical environmental conditions in the vicinity of the project as they exist at the time that the NOP is published. A lead agency may also use permit limits as baseline only where an action modifies a prior project that had CEQA review and the facts support it (i.e., reaching the limit is not hypothetical). In the case of this SEIR, baseline condition assumes the HFRP is fully developed and operational. Therefore, the environmental setting described in the SEIR is directed toward conditions within the HFRP Trail Expansion Project Area.[2] This approach to the environmental setting is consistent with CEQA Guidelines Section 15125 which states the lead agency should use the baseline that provides the most accurate picture practically possible of the project’s impacts, including conditions expected when the project becomes operational.

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1 Chapter 6.0, “Cultural Resources and Tribal Cultural Resources,” presents an expanded analysis that includes tribal cultural resources, reflecting the addition of this resource area to State CEQA Guidelines Appendix G since certification of the prior EIR. Similarly, Chapter 16.0 “Wildfire” has been added to this SEIR.

2 The SEIR assumes the findings made by the County on the HFRP are in place and does not reopen the prior analysis. In-depth review of the HFRP approvals has already occurred, and the right to build is vested.

## 1.5 PUBLIC INPUT

### 1.5.1 EXISTING HFRP

In September 2004, a mitigated negative declaration was adopted for the Didion Ranch portion of HFRP to satisfy the requirements of CEQA. In 2007 the County began preparation of an EIR for CUP No. 20090391 to combine the Didion Ranch and Spears Ranch properties and permit construction and operation of an expanded public trail system and ancillary activities for HFRP. The County, in determining the scope and content of the previously certified FEIR, reviewed public comments raised during the 2007 environmental review process. Areas of concern raised during that process included:

- Traffic and safety along Garden Bar Road
- Increased risk of wildfire
- Public safety related to hunting

### 1.5.2 PROPOSED TRAILS EXPANSION PROJECT

On January 31, 2017 the County issued a NOP to inform public agencies and the public of its intention to prepare a SEIR covering the HFRP trails expansion and adoption of a revised CUP. In an effort to reach as many people in the area of the expansion location as possible, the County went beyond the normal protocol of notifying people within 300 feet of the affected properties, and instead, mailed the NOP to nearly 6,000 property owners and residents within the north Auburn area. A public scoping meeting was held on February 21, 2017 to receive comments on the project. A revised NOP was subsequently issued on June 4, 2018 to account for modifications to the project description to reflect the potential use of 50 acres located at 5345 Bell Road in Auburn (Assessor's Parcel Numbers 026-110-012 and 026-110-018) (the "Twilight Ride property") for additional trailhead parking (approximately 100 automobile and 40 horse trailer spaces), as well as potential horse-boarding. The County held a second public scoping and informational meeting on June 14, 2018, in Auburn, California. Areas of concern raised by the public during these two public scoping time periods included:

- Traffic and safety along local roads
- Potential increase in trespassing
- Potential for wildland fire
- Potential impacts to grazing land
- Potential impacts to wildlife and habitat
- Potential impacts to water resources

Scoping reports including the NOPs, summaries of oral and written comment received, and copies of all written comments received from both public scoping processes are included in Appendix A of this SEIR.

### 1.5.3 SUBSEQUENT EIR PUBLIC REVIEW PERIOD

This Draft SEIR is being distributed to agencies and individuals to ensure that interested parties have an opportunity to express their comments about the potential environmental effects of the proposed project, and to ensure that information pertinent to project approval is provided to agency decision-makers. This Draft SEIR is being circulated for public review and comment for a period of 60 days. During this period, the general public, organizations, and agencies can submit comments to the Lead Agency on the Draft SEIR's accuracy and completeness. Release of the Draft SEIR marks the beginning of a 60-day public review period pursuant to CEQA Guidelines Section 15105.

Comments on the Draft SEIR should be sent to the following address:

Shirlee Herrington
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603
(530) 745-3132
Fax (530) 745-3080

Comments may also be submitted by e-mail to cdraecs@placer.ca.gov. If comments are provided via e-mail, please include the project title in the subject line, attach comments in Microsoft Word format, and include the commenter's U.S. Postal Service mailing address.

Paper copies of the document are also available for review at the County offices, Auburn Library, Lincoln Library, and Placer County Clerk-Recorder's Office at the following addresses:

Auburn Library
350 Nevada Street
Auburn, CA 95603

Lincoln Library
485 Twelve Bridges Drive
Lincoln, CA 95648

Placer County Clerk-Recorder's Office
2954 Richardson Drive
Auburn, CA 95603

Placer County Community Development Resources Agency
3091 County Center Drive
Auburn, CA 95603

Electronic copies of the SEIR can be downloaded from the County's website at:
https://www.placer.ca.gov/2537/Hidden-Falls-Regional-Park-Trail-Network

# 2.0 EXECUTIVE SUMMARY

## 2.1 INTRODUCTION

The purpose of this executive summary is to provide the reader with a clear and simple description of the proposed project and its potential environmental impacts. Section 15123 of the California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines) requires that the executive summary identify each potentially significant effect, recommended mitigation measures, and alternatives that would minimize or avoid potentially significant impacts. The executive summary must also identify issues of potential or existing controversy.

## 2.2 PROJECT DESCRIPTION

Placer County (County) owns and operates Hidden Falls Regional Park (HFRP) near Auburn, California. The park originally opened in 2006 with about 221 acres, and subsequently added another 979 acres in 2013. It contains approximately 30 miles of natural-surface, multi-use trails and two waterfall overlooks. Establishment and operation of the existing park was evaluated in a California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) certified by the County in January of 2010.

Placer County is considering expansion of the HFRP trail network system onto lands either owned by Placer Land Trust (PLT) or held in a Conservation Easement by PLT, with associated trail easements held by the County, or onto land owned by the County or where the County has purchased an easement. The project would increase the trail network by extending the existing HFRP trail system onto the lands described above and providing parking to support recreational activities as described in Section 3.0, Project Description. The approved Conditional Use Permit (CUP No. 20090391) for the existing HFRP, approved in January of 2010, would be modified to account for the proposed trail expansion. The project includes the following components:

- The preliminary layout accounts for approximately 30 miles of additional multi-use trails, some of which have already been constructed by Placer Land Trust and others yet to be constructed.
- Provides three new points of access to the expanded trail network system, with parking areas supported by trailhead amenities, including restrooms and picnic areas. New points of parking and access are proposed at Harvego Bear River Preserve off Curtola Ranch Road for access to the northern areas of the expanded trail network, on the Twilight Ride property off of Bell Road to provide access midway through the expansion areas, as well as the parking area on the Garden Bar 40 parcel for access to the western end (Refer to Exhibit 3-4).
- Provides an additional 25 automobile overflow parking spots at the Mears Place entrance, 120 automobile and 10 equestrian parking spaces at Harvego Bear River Preserve, 102 automobile and 38 equestrian parking spaces at Twilight Ride, and the division of the previously-approved Garden Bar Phase 1 parking improvements into three sub-phases.
- Identifying and clarifying the type and size of events (Garden Bar entrance) and facilities allowed within the existing HFRP and expansion area.

## 2.3 ENVIRONMENTAL REVIEW PROCESS

The environmental impacts associated with establishment and operation of the HFRP were evaluated in a California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) certified by the County as adequate in January of 2010. Once an EIR has been certified for a project, no new EIR need be prepared unless the project requires a discretionary action (in this case modification of the adopted CUP) and a change in project or circumstances occurs that could:

- Add new significant impacts, or
- Substantially increase the severity of previously identified significant impacts, or
- Add new information of substantial importance.

If no new discretionary approvals required by lead or responsible agencies and conditions above occur, there is no need to conduct additional CEQA analysis. Review of the proposed expansion and modification to existing CUP No. 20090391 was determined to be substantial new information that could increase impacts from those listed in the 2010 HFRP Certified EIR. Consequently, the County has elected to prepare this Draft Subsequent Environmental Impact Report (DSEIR) on the proposed HFRP Trails Expansion Project (proposed project, or project). It has been prepared for the Placer County (County) Department of Public Works in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.), the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), and the Placer County Environmental Review Ordinance found in Chapter 18 of the County Code.

The focus of this DSEIR is to determine if the proposed trail expansion would cause an increase in severity of an impact previously identified or a no impact not previously considered in the 2010 certified EIR. This DSEIR also evaluates new alternatives designed to address the significant impacts of the HFRP Trails Expansion project. Certification of the Final SEIR would provide the necessary environmental documentation for subsequent short-term construction activities and long-term actions within the HFRP, including the HFRP Trails Expansion areas.

## 2.4 ALTERNATIVES

The County has selected three alternatives to the proposed project for comparison.

### 2.4.1 NO PROJECT ALTERNATIVE (ALTERNATIVE 1)

The No Project Alternative assumes that the proposed natural-surface trails and related recreational amenities would not be constructed and that the approximately 2,765 acres of land owned or managed by the Placer Land Trust (PLT) and County would not be open to the public other than for the docent-led tours as currently conducted by the PLT. Access would be limited to PLT maintenance staff, invited guests, and emergency vehicles.

Selection of the No Project Alternative would avoid all significant and unavoidable impacts of the project, including increased VMT and a substantial change in the visual character at Garden Bar due to tree removal. However, under the No Project Alternative, none of the project objectives would be achieved.

### 2.4.2 Reduced Visitor Access for the Three New Parking Areas (Alternative 2)

Alternative 2 assumes 30 miles of proposed natural-surface trails, 2 bridge crossings over Raccoon Creek, and stream crossings would be constructed over time as described under the proposed project. Alternative 2 would also provide 25 additional vehicle parking spaces at the existing Mears Place park entry, 30 automobile parking spaces at the Garden Bar entrance (along with the improvements associated with Phase 1A, 1B, and 1C of the new Garden Bar parking area), 18 automobile parking spaces at the Harvego parking area (in addition to other Phase 1 and 2 improvements), and 54 automobile and 20 equestrian parking spaces, along with other corresponding improvements associated with Phase 1 of the Twilight Ride parking area. In total, Alternative 2 would reduce the total number of new automobile parking spaces to 127 and the equestrian parking spaces to 20, versus 297 automobile and 68 equestrian spaces proposed at full buildout. Alternative 2 would eliminate the unavoidable significant impact associated with tree removal along Garden Bar Road and substantially reduce VMT, although the significant unavoidable traffic impacts would remain. However, Alternative 2 would not implement full buildout of the parking lots, trailhead amenities, sanitation improvements and emergency response amenities planned for the entrances at the Garden Bar Road, Harvego, and Twilight Ride trailheads.

### 2.4.3 Reduced Visitor Access for Garden Bar Road Access Only (Alternative 3)

Alternative 3 would construct all the project improvements except at the Garden Bar Road entrance, where only Phase 1A, Phase 1B, and Phase 1C improvements would take place. Phase 2 (allowing for additional automobiles) and Phase 3 (allowing for equestrian trailers) would be eliminated from the Project Description. Alternative 3 would reduce the automobile parking count at this entrance by 40 spaces and the equestrian parking count by 20 spaces. Under Alternative 3, improvements include 30 miles of new native-surface trail system, two bridges crossing Raccoon Creek, access roads, and full build-out of the Mears, Twilight Ride, and Harvego trailheads accommodating 247 new automobile parking spaces and 48 new equestrian trailer parking spaces, supported with amenities including picnic benches and tables, restrooms, and potable water. All phases of the proposed Twilight Ride and Harvego trailheads as well as the additional 25 parking spaces at the Mears Place entrance would be open to the public and access would remain controlled by the reservation system. This Alternative would eliminate the significant and unavoidable impact to visual resources associated with the full buildout of the Garden Bar Road trailhead. However, Alternative 3 would not implement full buildout of the Garden Bar Road access as originally intended and would not provide a western staging area for equestrian trailers.

### 2.4.4 Environmentally Superior Alternative

The environmentally superior alternative would be the No Project Alternative; however, according to CEQA Guidelines, if the environmentally superior alternative is the No Project Alternative, an environmentally superior alternative must be selected from the other alternatives.

The environmentally superior alternative between the two remaining alternatives is the Reduced Access Alternative for the Three New Parking Areas (Alternative 2). This alternative would generate fewer trips on local roads, fewer air emissions during construction and operation, and would decrease activity at the three new proposed trailheads. Alternative 2 would reduce the two Significant and Unavoidable Impacts related to vehicle

miles traveled and eliminate the significant unavoidable visual impact to Garden Bar Road. Alternative 2 would meet many, but not all of the basic project objectives.

## 2.5 POTENTIAL AREAS OF CONCERN AND ISSUES TO BE RESOLVED

Pursuant to Section 15123(b) of the State CEQA Guidelines, a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

The County originally issued a NOP for the proposed HFRP Trails Expansion project in January of 2017. Subsequent to the release of the January 2017 NOP, the County approved the terms of a purchase and sale agreement for the Twilight Ride property that could lead to the acquisition of additional land with direct access to the existing trail network from Bell Road and provide additional opportunities for parking. Because of the changes in the proposed HFRP expansion areas from those identified in the January 2017 NOP, the County elected to release a Revised NOP in June of 2018. The County also held two public scoping meetings on February 21, 2017 and June 14, 2018 for the proposed project to collect verbal comments on the project and environmental review process. Based on this information, major areas of CEQA related controversy noted by the public are the following:

- Potential land use conflicts between existing cattle grazing operations and a public trail system
- Potential land use conflicts between existing rural residences and the introduction of parking/trailhead areas
- Increase in traffic and potential impacts to local roadways
- Potential for project's wells to impact existing local wells
- Potential impact to public services, especially fire services related to emergency medical responses
- Potential increase in wildfires due to visitors; impacts on level of service for surrounding residential areas
- Potential to increase noise levels along study roadway segments
- Potential to introduce light or glare to a rural area

Section 15123(b)(2) of the State CEQA Guidelines indicates that an EIR summary should identify areas of controversy known to the lead agency, including issues raised by agencies and the public. This Draft SEIR has taken into consideration the comments received from the public and various agencies in response to the Notices of Preparation (NOP) and during the public scoping sessions. Written comments received during the NOP and scoping periods are contained in Appendix A of this Draft SEIR. Environmental issues that have been raised are addressed in each relevant issue area analyzed in this Draft SEIR.

## 2.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 2-1 summarizes the impacts, mitigation measures, resulting levels of significance after mitigation, and comparison to the findings of the 2010 Certified EIR. The table is intended to provide an overview; narrative discussions for the issue areas are included in the corresponding sections of this Draft Subsequent Environmental Impact Report (DSEIR). Table 2-1 is included in the DSEIR as required by State CEQA Guidelines Section 15123(b)(1).

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Section 4.0, "Land Use"** | | | |
| **IMPACT 4-1: Land Use and Agricultural Resources—Adverse Effect on Agricultural or Timber Resource Operations or Conversion of Important Farmland to Nonagricultural Uses.** The project area is designated as Farmland of Local Importance. Taylor Ranch and the east parcel of the Harvego Preserve, as well as the Liberty Ranch, are currently under Williamson Act contracts. The proposed project would increase use of the area by the public where grazing activities currently take place. Although this change would be different from surrounding uses, project elements would ensure compatibility with land uses in the project area. Current grazing activities have been and would continue on the properties and such activities are included as a component of the County's Vegetation, Fuels, and Range Management Plan (2007) for operations and maintenance of the existing park as well as the Land Management Plans for the various properties owned by PLT. Management Plans and the Placer County Public Recreation Ordinance would be adapted to ensure regulation of public activities that have the potential to impact agricultural operations on expansion properties. Therefore, the properties' agricultural use would be sustained as part of the project. The Timberland land use designation for the project area allows forestry uses, while also allowing open space, residential, and recreation land uses in the same areas. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 4-2: Land Use and Agricultural Resources—Alteration of Land Use and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area.** Outdoor recreation would be a new land use for the project area. The proposed project would add parking and trails that would increase use of the project area by the public where agricultural activities currently take place. Although different from surrounding uses, project elements would ensure compatibility with land uses adjacent to the project area. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 4-3: Land Use and Agricultural Resources—Potential for Conflicts with Land Use or Agricultural Resource Plans, Policies, or Regulations.** The County determines allowable land uses at a parcel-level according to the zoning code. The zoning district applicable to the project area is Farm and Building Site ranging from 10 to 160 acre minimums. According to the Placer County zoning code, the proposed project would be allowed in the entire project area with approval of a minor use permit (MUP) and would not require rezoning. Further, use of the property for trail expansion is considered compatible with grazing and agricultural use, with grazing activities and agricultural use continuing after the project is implemented and maintaining the natural state of the area. Therefore, the proposed project is consistent with existing plans, policies, and regulations. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 4-4: Land Use and Agricultural Resources—Local Roadway Improvements and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area.** The County's discretionary actions associated with the proposed project would include approval of a modified CUP covering the existing park and the expansion areas, including the parcel west of the existing park that was acquired by the County in 2016 and the areas east of the park that connect to Taylor Ranch. The improvements would be limited generally to the existing roadway corridors and would not adversely affect adjacent agricultural land uses. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **Section 5.0, "Geology, Soils, and Seismicity"** | | | |
| **IMPACT 5-1: Soils, Geology, and Seismicity—Construction- and Operation-Related Erosion Hazards.** Based on soil types and topography, the excavation and grading of soil could result in erosion during construction, particularly during periods of strong winds or storm events. In addition, use and maintenance of the project area could result in erosion over time. However, preparing and implementing a SWPPP and Best Management Practices (BMPs) as part of a project-specific Central Valley Regional Water Quality Control Board (RWQCB) permit to reduce the amount of soil eroding and entering area waterways, would reduce to these potential impacts to less-than-significant. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S5-1:** Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required | LTS |
| **IMPACT 5-2: Soils, Geology, and Seismicity—Risks to People from Naturally Occurring Asbestos.** Disturbance of naturally occurring asbestos fibers could create a health hazard. The proposed project is located in an area that is moderately likely to contain naturally occurring asbestos, and disturbance of soil during construction could expose workers to asbestos. However, implementation of on-site soil testing and preparation and implementation of an Asbestos Dust Control Plan, as needed, would reduce the impact to less than significant. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 9-1** in Chapter 9.0, "Air Quality": Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed | LTS |
| **IMPACT 5-3: Soils, Geology, and Seismicity—Risks to People and Structures Caused by Strong Seismic Ground Shaking or Fault Rupture.** The potentially active Deadman Fault (part of the Bear Mountains Fault Zone) crosses the eastern portion of the expansion project area, although the project area is not located in an Alquist-Priolo Earthquake Fault Zone. Although all park and expansion project facilities would be designed and constructed in accordance with the current design requirements for the California Building Standards Code (CBC) project structures would be near a known fault. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S5-2:** Obtain and Implement Seismic Engineering Design Recommendations | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 5-4: Soils, Geology, and Seismicity—Risks to People and Structures Caused by Landslides.** Although stable slope conditions and drainage patterns may change with site alterations (e.g., cuts, fills) associated with construction of recreation facilities in the park and expansion project area, the project area does not contain areas of shallow slope instability and/or small landslide areas. Therefore, the risk of a landslide is considered low. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 5-5: Soils, Geology, and Seismicity—Limited Ability for Soils to Support Operation of a Wastewater Disposal System.** On-site soil testing conducted in 2019 at the trail expansion parking areas has confirmed soils capable of supporting engineered septic systems. The park and expansion project would comply with Central Valley RWQCB and County Department of Environmental Health regulations which would ensure that on-site systems are properly engineered and designed to suit the on-site soil conditions. Therefore, this impact would be less than significant. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **Section 6.0, "Cultural and Tribal Resources"** | | | |
| **IMPACT 6-1: Cultural Resources—Potential for substantial adverse change to a Significant Cultural Resource.** Nine potentially significant cultural resources and one significant cultural resource were documented within the HFRP, while two historic era resources were identified within the HFRP Trails Expansion boundary. | PS (No new significant impact from those in the 2010 HFRP Certified EIR) | **Mitigation Measure 6-1:** Modify Project Plans to Avoid Potentially Significant Cultural Resources and Actively Monitor Resources for Indirect Effects | LTS |
| **IMPACT 6-2: Cultural Resources—Potential for Disturbance of Undiscovered Cultural Resources.** The park and Trail Expansion project vicinity are known to contain numerous historic and prehistoric resources. In addition, buried traces of historic-era activity and early Native American occupation that remain undocumented may be present within and in the vicinity of proposed trails. Ground-disturbing activities during construction of trails and project area facilities could disturb undiscovered cultural resources. | PS (No new significant impact from those identified in the 2010 HFRP Certified EIR) | **Mitigation Measure 6-2:** Protect Previously Unknown Cultural Resources | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 6-3: Cultural Resources—Potential for Disturbance of Unknown Human Interments.** Although no evidence of human interments was found in documentary research or during the archaeological inventory, evidence of prehistoric and historic use of the park and expansion project area has been found. If undiscovered human remains are present, ground-disturbing activities during construction of trails and other project area facilities could adversely affect presently unmarked human interments. | PS (No new significant impact from those identified in the 2010 HFRP Certified EIR) | **Mitigation Measure 6-3:** Stop Potentially Damaging Work if Human Remains are Uncovered During Construction | LTS |
| **IMPACT 6-4: Tribal Cultural Resources—Impacts on Tribal Cultural Resources.** Impacts on tribal cultural resources were not evaluated under separate significance criteria in the 2010 Certified EIR, as such criteria had not yet been adopted. The HFRP Trail Expansion Project may result in impacts on Tribal Cultural Resources. However, implementation of mitigation measure S6-4, which notifies and provides the opportunity for the tribes to conduct site visits for TCRs prior to general public access, this potentially significant impact would be reduced to less-than-significant. | PS (New impact not previously considered in 2010 HFRP Certified EIR) | **Mitigation Measure S6-4:** Post Ground-Disturbance Site Visit | LTS |
| **Section 7.0, "Visual Resources"** | | | |
| **IMPACT 7-1: Visual Resources—Short-Term Changes in Visual Resources Associated with Project Construction.** Construction activity, construction equipment, and areas of vegetation removal would be temporarily visible during and immediately after construction of park and proposed project facilities (e.g., bridges, trails, overlooks, roads, parking areas). However, these changes in views would be minimal and not visible from most off-site public locations. In addition, all views of construction activities would be temporary. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 7-2: Visual Resources—Long-Term Changes in Visual Resources Associated with amenities for the Proposed HFRP Trails Expansion Project.** The park and proposed project would introduce new physical elements into the landscape; however, the proposed facilities of the park and proposed project (e.g., bridges, trails, overlooks, restrooms, picnic areas, parking areas) would be in remote locations, avoiding visually obtrusive effects from public vantage points. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 7-3: Visual Resources—Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road and Curtola Ranch Road.** The park and proposed project would remove vegetation including trees to widen Garden Bar Road, Curtola Ranch Road, and a short section of Bell Road. The removal of trees would result in a substantial physical change to the visual environment of Garden Bar Road because of the large numbers of mature oak trees which would require removal. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 7-1:** Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts<br>**Mitigation Measure S12-7** in Chapter 12.0, "Biological Resources": Protect Oak Woodland Habitat | **SU** |
| **IMPACT 7-4: Visual Resources—Increased Light and Glare.** Proposed parking could include lighting near the restrooms, maintenance buildings and the ranch house at the west end of HFRP. Lights at the existing residence on the Twilight Ride property would remain. However, the lighting in the proposed new parking areas would be minimal and would be consistent with existing surrounding lighting. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **Section 8.0, "Transportation and Circulation"** | | | |
| **IMPACT 8-1: Transportation and Circulation – Conflict with an adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities-Temporary Increase in Traffic during Construction.** During construction of the trail system and related components, local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks. However, this increase in traffic would be temporary and is not expected to be substantial in relation to the existing traffic load and capacity of area roadways. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 8-2: Transportation and Circulation – Conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities-Existing Plus Project Conditions.** The addition of project traffic does not conflict with any adopted program, plan, ordinance, or policy under Existing Plus Project conditions. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 8-3: Transportation and Circulation – Conflict or be inconsistent with CEQ Guidelines Section 15064.3 subdivision (b).** The addition of project traffic does result in an increase in vehicle miles traveled. Since no threshold has been established by the County and the proposed project is inconsistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), the increase in VMT is considered significant. | PS (New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR) | None Feasible | **SU** |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 8-4: Transportation and Circulation – Conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities-Increase in Traffic Impacts Associated with Project Access.** The project would create new points of access off existing public roads. The adequacy of these points has been considered with regards to applicable safety and design standards. This traffic increase would not result in conditions in excess of adopted standards at intersections or on individual roadway segments. | PS (New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S8-4:** Prepare Improvement Plans and Construct Improvements for Access to Twilight Ride.<br>**Mitigation Measure S8-5:** Construct Left Turn Lane at Access to Twilight Ride. | LTS |
| **IMPACT 8-5: Transportation and Circulation – Cause a substantial increase in hazards to motorists, pedestrians, and bicyclists attributable to a geometric design feature or incompatible uses.** The project will take access from multiple points along public roads including Cramer Road, which experienced collisions at a rate exceeding the statewide average for similar facilities (3 accidents in 3 years were recorded). Hazards to motorists are considered to be potentially significant.<br>Without mitigation, there is no guarantee that visitors may not occasionally elect to park off-site and walk to the new trail expansion areas. Pedestrian travel between off-site parking and the proposed expansion entrances could create automobile / pedestrian safety conflicts. Hazards to motorists, pedestrians and bicyclists is potentially significant. | PS (New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S8-1:** Implement Traffic Control Measures During Park Reservation-based Events.<br>**Mitigation Measure S8-2:** Install No Parking Signs to discourage Pedestrian Travel on Local Roads<br>**Mitigation Measure S8-3:** Install or Upgrade Traffic Control Devices along Cramer Road<br>**Mitigation Measure S8-4:** Prepare Improvement Plans and Construct Improvements for Access to Twilight Ride | LTS |
| **IMPACT 8-6: Transportation and Circulation—Result in inadequate emergency access or access to nearby uses.** The proposed HFRP trail expansion project would have several access points to provide adequate access for emergency response vehicles and personnel. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **Section 9.0, "Air Quality"** | | | |
| **IMPACT 9-1: Air Quality—Short-Term Emission of Criteria Air Pollutants and Precursors during Construction.** Modeled short-term emissions of ozone precursors and fugitive dust from construction of trails and other park and expansion project facilities would not exceed Placer County Air Pollution Control District's (PCAPCD's) significance threshold of 82 lb/day. Thus, emissions of Reactive Organic Gasses (ROG), Oxides of Nitrogen (NOX), and Particulate Matter with a diameter of 10 micrometers or less (PM10) associated with park and project construction would not violate or contribute substantially to an existing or projected air quality violation, nor would they expose sensitive receptors to substantial concentrations of pollutants. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 9-2: Air Quality—Long-Term, Regional Emissions of Criteria Air Pollutants and Ozone Precursors Associated with Project Operation.** Operational activities associated with the park and proposed project would not result in emissions of ROG, $NO_X$, or $PM_{10}$ exceeding PCAPCD's significance threshold. Thus, emissions of criteria air pollutants and precursors associated with park and project operation would not violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with air quality planning effort. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 9-3: Air Quality—Exposure of Sensitive Receptors to Emissions of Toxic Air Contaminants (TACs).** The park and proposed project would not expose sensitive receptors to substantial emissions of TACs during park and project construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, construction workers and surrounding residents could be exposed to dust from asbestos rock and soils during park and project construction. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 9-1:** Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed<br>**Mitigation Measure S9-2:** List Standard Air Quality Notes on Grading and Improvement Plans | LTS |
| **IMPACT 9-4: Air Quality—Long-Term (Local) Mobile-Source Emissions of Carbon Monoxide during Project Operation.** Long-term operational (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, nor would they expose sensitive receptors to substantial pollutant concentrations. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 9-5: Air Quality—Exposure of Sensitive Receptors to Odors.** Construction of the proposed trails and recreational facilities would result in diesel exhaust emissions from on-site construction equipment. However, these emissions would be intermittent and would dissipate rapidly with an increase in distance from the source. The existing park and proposed project development would not be a major source of odors. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **Section 10.0, "Noise"** | | | |
| **IMPACT 10-1: Noise—Short-Term Construction-Generated Noise Levels Exceeding County Standards.** Short-term exterior noise levels at the closest existing noise-sensitive receptor could exceed 70 dBA without feasible noise controls, which would exceed the applicable County nighttime standard of 45 dBA at existing nearby off-site sensitive land uses. However, construction would be limited to daytime hours. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 10-2: Noise—Increases in Long-Term (Operational) Noise Levels from Non-transportation Stationary and Area Sources.** Area-source noise may result from maintenance activities. However, exterior noise levels at the closest existing noise-sensitive receptor (approximately 40 feet) would not exceed any of the applicable County standards for daytime or nighttime noise, nor would they result in a substantial increase in ambient noise levels at nearby existing noise-sensitive receptors. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 10-3: Noise—Increases in Transportation-Related Noise Levels.** Short-term construction of the proposed project would not result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Noise increases associated with construction traffic would be temporary and would occur during the less noise-sensitive daytime hours. Long-term traffic associated with project operation would not exceed Placer County standards but would result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Short- and long-term traffic-generated noise levels would not exceed applicable Placer County noise standards; however, long-term traffic would increase ambient noise at nearby existing noise-sensitive receptors. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 10-1:** Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset.<br>**Mitigation Measure S10-2:** Use of pavement or similar hard material is required when laying the final surface on access roads and limit vehicle speeds to 25 mph | LTS |
| **IMPACT 10-4: Noise—Exposure of Persons to or Generation of Excessive Ground borne Vibration or Noise Levels.** Ground vibration levels generated by on-site construction equipment would not exceed Caltrans's recommended standard of 0.2 in/sec PPV for the prevention of structural damage or FTA's maximum-acceptable vibration standard with respect to human annoyance for residential uses (80 VdB for residential structures). In addition, long-term use and maintenance of the project area would not include the operation of any sources of ground vibration. Thus, the proposed project would not result in the exposure of persons to or generate excessive ground borne vibration or ground borne noise levels. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **Section 11.0, "Hydrology and Water Quality"** | | | |
| **IMPACT 11-1: Hydrology and Water Quality—Potential for Short-Term, Construction-Related Soil Erosion and Impairment of Water Quality.** The proposed trails expansion project construction could cause short-term degradation of water quality. Areas where vegetation would be removed, and topography altered could be subject to erosion from rain and wind. In addition, accidental spills of construction-related contaminants could occur during construction in the project area. Both of these mechanisms could carry soil and construction-related contaminants to on-site drainages before they are ultimately discharged to Raccoon Creek. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 11-1:** Prepare and Implement a Grading and Drainage Plan; and<br>**Mitigation Measure S5-1** in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 11-2: Hydrology and Water Quality—Potential for Long-Term Soil Erosion and Impairment of Water Quality.** Use of the proposed trail expansion system and extreme weather events could cause long-term degradation of water quality from soil erosion and creek sedimentation. The introduction of impervious surfaces on-site such as the access roads and parking areas has the potential to alter existing absorption rates and increase runoff of surface water into Raccoon Creek and other drainages on-site. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 11-1:** Prepare and Implement a Grading and Drainage Plan<br>**Mitigation Measure S5-1** in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required | LTS |
| **IMPACT 11-3: Hydrology and Water Quality—Change in the Quality of Groundwater related to Installation of a Septic System.** Operation of septic systems was proposed as part of the 2010 analysis and is also proposed for the proposed trails expansion project. There is the potential that installing on-site septic systems could change the quality of the groundwater in the expansion area if the septic systems are not sited properly. Although suitable soils have been identified at each of the new parking areas, the potential still exists for changes in groundwater quality to occur if onsite wells are not properly constructed and maintained. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 11-2:** Implement Groundwater Protection through a Transient Non-community Water System Permit | LTS |
| **IMPACT 11-4: Hydrology and Water Quality—Change in the Supply and Availability of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity.** While soil compaction from constructed facilities could slightly impede recharge in localized areas, only approximately 18 acres of the 2,765+/- acres of HFRP Trails Expansion project would be developed with impervious surfaces. Installation of groundwater wells for uses related to the park and proposed project facilities could increase the demand for groundwater; however, project-related groundwater demand would not be substantial and is similar to yield rates found in private wells in the project vicinity. In addition, the demand for water is limited by the number of people permitted to visit under the reservation system. Proposed project-related water needs include water necessary for fire suppression, but the 2009 water demand calculation report did not evaluate project requirements related to fire suppression. This impact would be potentially significant. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 11-2:** Implement Groundwater Protection through a Transient Non-community Water System Permit.<br>**Mitigation Measure 11-3:** Calculate Water Demands for Fire Suppression. | LTS |
| **IMPACT 11-5: Hydrology and Water Quality—Exposure of People or Structures to Flooding.** Constructing park and proposed project facilities adjacent to or across Raccoon Creek or adjacent to the Bear River could expose people and structures to flooding. Facilities potentially exposed to flooding would be constructed to withstand scour and debris flow. No housing would be constructed in the floodplain, and access to the floodplain would be restricted in the event of a flood. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Section 12, "Biological Resources"** | | | |
| **IMPACT 12-1: Biological Resources—Potential Disturbance of Aquatic Habitats and the Native Fish Community.** Several native fish species occur in Raccoon Creek and in the Bear River; special-status fish species, including steelhead and fall-/late fall-run chinook salmon, could occur in Raccoon Creek downstream of the project area. Implementation of the proposed project could result in temporary and long-term degradation of aquatic habitats, loss of instream cover, and increased injury or mortality of fishes because of increased angling pressure. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 12-1:** Implement Measures to Protect Aquatic Habitats and Native Fish Community.<br>**Mitigation Measure S12-2:** Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State.<br>**Mitigation Measure S5-1** in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Boards and Implement Erosions and Sediment Control Measures as Required | LTS |
| **IMPACT 12-2: Biological Resources—Potential Disturbance of California Red-Legged Frog.** Marginal habitat for California red-legged frog occurs in and near the project area. Construction and use of proposed trails, bridges, parking areas and structures across or adjacent to stock ponds, creeks with backwaters, and freshwater marshes could degrade and possibly result in removal of aquatic habitat or could result in physical injury to red-legged frog. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 12-3:** Implement Measures to Protect California Red-Legged Frog | LTS |
| **IMPACT 12-3: Biological Resources—Potential Disturbance of Foothill Yellow-Legged Frog and Western Pond Turtle.** Habitat for foothill yellow-legged frog and western pond turtle occurs in the project area. Construction of trails across drainages could degrade aquatic habitat or could result in physical injury to yellow-legged frog and pond turtle. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 12-4:** Implement Measures to Protect Foothill Yellow-Legged Frog and Western Pond Turtle | LTS |
| **IMPACT 12-4: Biological Resources—Potential Disturbance of Nests of Raptors and Other Birds.** Trees and other vegetation in and adjacent to the project area provide potential nest sites for raptors and other birds, including special-status bird species. Removal of trees or other vegetation during construction and maintenance of trails and fuel breaks and for road improvements could destroy or disturb nests, resulting in loss of eggs or young. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 12-5:** Implement Measures to Protect Raptors and Other Nesting Birds | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 12-5: Biological Resources—Potential Disturbance of Dens and Individual Ringtails.** Trees along riparian portions of the project area such as Raccoon Creek that are 5 inches or greater dbh and are hollow or have large cavities provide potential den sites for ringtail. Removal of such trees or other vegetation during trail construction and for road improvements could destroy dens, resulting in potential loss of adults and/or young. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 12-6:** Implement Measures to Protect Ringtail and Bat Roosts | LTS |
| **IMPACT 12-6: Biological Resources—Potential Disturbance of Townsend's Big-Eared Bat and Other Bat Roosts.** Limited habitat for Townsend's big-eared bats and other bat species and bat roost sites could occur in the project area. Construction of trails, bridges, and parking facilities could result in the disturbance of maternity or winter roosts of Townsend's big-eared bat or other bat species. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S12-6:** Implement Measures to Protect Ringtail and Bat Roosts | LTS |
| **IMPACT 12-7: Biological Resources—Potential Loss of Brandegee's Clarkia and other Special-Status Plant Species.** Floristic surveys did not detect the presence of Brandegee's clarkia or any other special-status plant species in the project area. Construction of the proposed project would not result impacts on special-status plant species. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None required | LTS |
| **IMPACT 12-8: Biological Resources—Impacts on Waters of the United States and Waters of the State.** A preliminary wetland delineation identified approximately 5.6 acres of potentially jurisdictional waters of the United States and waters of the state on the project area. Although jurisdictional waters would be avoided to the extent feasible throughout project implementation, installation of stream crossings and bridges, and construction of trails and parking facilities and other improvements could result in the fill of jurisdictional waters of the United States and waters of the state, including wetlands. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S12-2:** Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State | LTS |
| **IMPACT 12-9: Biological Resources—Impacts on Oak Woodland Habitat.** The proposed project would result in the removal of trees that are 5 inches dbh or larger from oak woodland habitat. Native oak trees are protected under the Placer County Tree Ordinance and SB 1334. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S12-7:** Protect Oak Woodland Habitat | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Section 13.0, "Public Services and Utilities"** | | | |
| **IMPACT 13-1: Public Services and Utilities—Potential for project operation to require construction or relocation of new facilities for provision of water or wastewater.** The existing HFRP and proposed trails expansion project are outside of existing municipal service areas. The HFRP included installation of up to two additional groundwater wells and a septic system, and the existing septic system at the ranch house was to be upgraded or abandoned and replaced as part of the project. Implementation of the expansion project would include the installation of public wells and septic systems at the Garden Bar, Twilight Ride and Harvego entrances, for a total of three additional public wells and three additional septic systems and associated restroom buildings. If suitable groundwater is not available for a public well at the proposed parking areas, permanent vault-type restroom facilities may be provided. Prior to permanent restrooms being constructed, the entrances may utilize portable toilets. In addition, portable toilets may be provided to users at key locations throughout HFRP and the trails expansion area. The environmental impacts associated with construction of the new wells and septic systems are evaluated throughout this SDEIR. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 13-2: Public Services and Utilities—Increase in Demand for Police Services.** Implementation of the proposed trails expansion project could increase demand for police services. The potential increase in demand would be addressed through management strategies, including, but not limited to, limiting operating hours to daylight hours only, controlling the number of visitors to the expansion areas on high volume days through the use of parking reservations, and proportionately increasing the number of ranger staff and County Parks maintenance staff on site to match the increase in trail acreage. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 13-3: Public Services and Utilities—Increase in Demand for Fire and Emergency Medical Services.** Construction and use of trails expansion facilities may increase the calls for service to extinguish fires or provide emergency medical response at the proposed trail expansion areas because more people would be allowed into areas that are not currently open to the public, with the exception of ongoing docent-led tours. However, the project improvements as well as a mitigation measure would reduce the potential for a fire within the proposed project area and enhance access to park areas for emergency response vehicles. With inclusion of the project improvements and mitigation measures, the expansion project is not expected to cause a significant increase in demand for fire services and emergency medical response calls such that construction of new facilities is required. (Information on wildfire is also included in Section 16.0.) | PS (New impact not previously considered in the prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S13-1:** County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **IMPACT 13-4: Public Services and Utilities—Increase in Emergency Response Times and Need for Expanded Facilities.** The proposed expansion project could cause an increase in emergency response times by redirecting resources to address calls within the Park leaving fewer staff to address calls for service elsewhere. However, project components would serve to reduce time spent on the site and minimize the need to call for service. The project would provide improved access for emergency vehicles to navigate remote areas of the County, emergency helicopter landing zones would be provided at each parking area, and a Light Rescue Vehicle would be purchased for Placer County Fire Department/CAL FIRE to assist with medical calls not only within HFRP and the trail expansion areas, but also within the greater North Auburn/Ophir area. Additionally, contracted ranger services would be proportionately increased with the increase in the trails network in order to assist with minor emergency service calls that do not require the training of emergency medical service providers. Mitigation Measure 13-1, which requires the purchase of a Light Rescue Vehicle for Placer County Fire Department/CAL FIRE, would assist with medical calls not only within HFRP and the trail expansion areas, but also within the greater North Auburn/Ophir areas served by the Placer County Fire Department/CAL FIRE. With the implementation of these project components and mitigation measure, there would not be a significant increase in demand for emergency services and an increase in current emergency response times. | PS (New impact not previously considered in the prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S13-1:** County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE. | LTS |
| **IMPACT 13-5: Public Services and Utilities—Temporary Disruption of Utility Service during Construction.** Implementation of the HFRP trails expansion project could require the relocation of utility poles that are adjacent to Garden Bar Road. Relocation of utility poles could cause temporary disruptions in service. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 13-6: Public Services and Utilities—Increase in Solid Waste and Wastewater Generation.** Operation of the HFRP and trails expansion project would increase demand for service associated with collection and disposal of solid waste at permitted disposal facilities and wastewater requiring treatment to avoid health risk. However, solid waste generated by the HFRP and the expansion areas are expected to be taken care of in a manner similar to what occurs at HFRP currently. In addition, the on-site sewage disposal systems would be designed to accommodate HFRP use. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Section 14.0, "Hazardous Materials and Hazards"** | | | |
| **IMPACT 14-2: Hazardous Materials and Hazards—Potential for Release of Hazardous Materials during Construction or Operation.** Project construction activity and ongoing maintenance may use equipment that requires small amounts of hazardous materials. The County would comply with all applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety; however, accidental spills or other releases of small amounts of hazardous materials could occur during construction or operation of the project area. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure 14-1:** Implement Measures to Reduce Hazards Associated with Potential Releases of Hazardous Materials<br>**Mitigation Measure S5-1** in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required | LTS |
| **IMPACT 14-3: Hazardous Materials and Hazards—Potential for a Public Safety Hazard from Hunting Activities.** Activities allowed in the existing park include depredation hunting to control damage to the park, especially from wild pigs. Hunting activities could conflict with other recreational activities occurring in the park, including the proposed project area. However, measures would be implemented to protect the visiting public and surrounding residents from hunting activities. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |
| **IMPACT 14-4: Hazardous Materials and Hazards—Potential Exposure of People to Hazardous Materials.** There have been no recorded releases of toxic materials in the park or the proposed expansion project area. Several remnant mining or prospecting resources are located in the existing park and one load gold mine is located in the Taylor Ranch property within the expansion area that could contain hazardous materials. | PS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | **Mitigation Measure S14-2:** Prepare and Implement a Safety Hazard Plan and Conduct Soil Sampling | LTS |
| **IMPACT 14-5: Hazardous Materials and Hazards—Increased Risk of Health Hazard from Vector-borne Diseases.** The trail expansion areas and proposed project amenities could include access to fishing locations along Raccoon Creek and new fishing ponds developed in coordination with the California Department of Fish and Wildlife (CDFW). These ponds could serve as potential habitat for mosquitoes. The project would also increase the number of people in an area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. However, the County would coordinate with the Vector Control District to ensure these sites are not a hazard to the public. | LTS (Consistent with prior analysis in the 2010 HFRP Certified EIR) | None Warranted | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Section 15.0, "Greenhouse Gases and Energy"** | | | |
| **IMPACT 15-1: Greenhouse Gas Emissions and Energy**. The project would generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment. However, project emissions would be less than the PCAPCD adopted Bright Line level threshold of 10,000 MT $CO_2e$. | LTS | None Warranted | LTS |
| **IMPACT 15-2: Greenhouse Gas Emissions and Energy.** The project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing greenhouse gas emissions. | LTS | None Warranted | LTS |
| **Section 16.0, "Wildfire"** | | | |
| **IMPACT 16-1: Wildfire—Potential for increased risk to human health through exposure to uncontrolled wildfire or from construction and maintenance of infrastructure that could spark a wildfire.** The potential exists for the project to expose people to an uncontrolled wildfire and to exacerbate risk of wildfire during construction, maintenance, and public use of the trail system. The County is constructing beneficial improvements that would increase the ability of emergency responders to fight wildfire that presently does not exist. The project promotes fire safety through construction of parking areas sufficiently sized to accommodate a helicopter landing zone and the introduction of multiple 12,000-gallon water tanks with hydrant for use in fire suppression. The water tanks and helicopter landing zones would be placed at each trailhead entry. In addition, the County would comply with all laws, plans, policies, and regulations related to fire safety and wildfire suppression and would implement management actions and fire response facilities that would reduce the risk of wildfire. The County must also comply with mitigation measures intended to lower the risks from fires started during construction and maintenance activities, including purchase of a Light Rescue Vehicle for the Placer County Fire Department/CAL FIRE's use. The vehicle would aid with potential wildfires not only within the existing HFRP and trails expansion areas, but also within the jurisdiction of the Placer County Fire Department/CAL FIRE. Implementation of these project-specific components along with the implementation of the mitigation measures would result in a less than significant impact from wildfires and other associated risks. | PS (New impact not previously considered in the 2010 HFRP Certified EIR) | **Mitigation Measure S16-1a:** Curtail certain construction and maintenance activities during high-risk wildfire periods<br>**Mitigation Measure S16-1b:** Provide on-site source of water during certain construction and maintenance activities<br>**Mitigation Measure S13-1:** County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Cumulative** | | | |
| **Land Use and Agricultural Resources** | | | |
| **Impact:** The HFRP Trails Expansion project would be consistent with the land uses and zoning of the project area, including the goals and policies of the General Plan and Placer Legacy. | LTS | None Warranted | LTS |
| **Soils, Geology, Seismicity and Mineral Resources** | | | |
| **Impact:** Disturbance of topsoil and removal of vegetation during construction of the proposed Trails Expansion project and related cumulative projects would increase the potential for wind and water erosion and disturbance of naturally occurring asbestos fibers. Each future project must implement erosion and sediment control measures, and prepare and implement an asbestos dust control plan, if needed. The incremental effect of the project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. | LTS | None Warranted | LTS |
| **Cultural and Tribal Cultural Resources** | | | |
| **Impact:** The project as well as all development in Placer County has the potential to affect known cultural resources and yet-to-be-discovered subsurface cultural remains or human interments. Each future development in Placer County must implement site-specific mitigation consistent with the California Health and Safety Code and the California Public Resources Code. The incremental effect of the HFRP Trails Expansion Project would not be cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. | LTS | None Warranted | LTS |
| **Visual Resources** | | | |
| **Impact:** Views of the trails and trailhead improvements would be limited to adjacent property and travelers in the immediate project area. Introduction of security lighting at new structures associated with related projects would illuminate the night sky unless properly shielded and cut off to prevent light spillage onto adjacent property. None of the related projects would be visible from one single location, but the loss of vegetation along Garden Bar Road would be visible to motorists traveling along that road and would result in a cumulatively considerable contribution to the visual changes associated with new development in the region. | PS | No feasible measures available to address the removal of mature trees required to improve Garden Bar Road. Placer County adopted a statement of overriding consideration as part of the approvals for the 2010 HFRP Certified EIR | **SU** |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Transportation and Circulation** | | | |
| **Impact:** The proposed project will continue to generate vehicle miles traveled (VMT) under cumulative plus project conditions and since no threshold has been established by the County, the increase in VMT is a cumulatively considerable impact. The standard of significance of VMT has not been established for Placer County and is not required until July 1, 2020. Since OPR's recommended thresholds are not applicable and Placer County has not yet established thresholds for VMT, any increase in VMT results in a significant impact. Additionally, the proposed project is inconsistent with the MTP/SCS land use plan. The proposed project would result in a significant impact. | PS | No feasible mitigation measures are available to reduce VMT of the proposed project. Most mitigation measures that reduce VMT have low to negligible effects in rural areas. The only feasible mitigation measure is the parking reservation system, which is already being employed as part of the project for weekends, holidays, and other peak usage days. The parking reservation system serves to promote carpooling and control the amount of VMT generated by the proposed project. Even with the parking reservation system, VMT of the proposed project continues to exceed the applicable threshold. | **SU** |
| **Air Quality** | | | |
| **Impact:** Construction activity in the region would generate criteria air pollutants ($PM_{10}$ and $PM_{2.5}$) and ozone precursors (ROG and $NO_X$) during site preparation (e.g., excavation, grading, and clearing); exhaust from equipment, material transportation, workers traveling to and from the site, and other miscellaneous activities. Operation of the trail expansion project would generate emissions of ROG, $NO_X$, and PM from visitors traveling by motor vehicle to and from the expansion areas, utility usage, and pumps used to operate groundwater wells. Emissions modeling found that the project would not generate emissions of ROG, $NO_X$, or $PM_{10}$ that exceed PCAPCD's significance threshold. Therefore, the project would not result in a cumulatively considerable contribution toward a cumulatively significant impact. | LTS | None Warranted | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Noise** | | | |
| **Impact:** Project related construction activity would not contribute towards a cumulative impact because noise is a localized occurrence and attenuates rapidly with distance. Each of the related projects is geographically distant from one another so no single receptor would be exposed to the combined noise from all related activity. Future noise levels would increase due to motor vehicles traveling on roadways, as well as activity at parking lots (e.g., car doors closing, people talking and laughing, children playing, etc.). Future noise levels at noise-sensitive receptors near the entrance to the trailheads at Curtola Ranch Road and Bell Road are predicted to increase by more than 3 dBA under future with project conditions. This increase would be audible but would not expose a sensitive receptor to noise levels that exceed adopted standards, so the project would not result in a cumulatively considerable contribution to a significant noise impact. | LTS | None Warranted | LTS |
| **Hydrology and Water Quality** | | | |
| **Impact:** Development activity in the County could result in temporary discharges of sediment and other contaminants into local waterways. However, all development that disturbs one acre or more must implement erosion and sediment control measures consistent with NPDES program administered by the RWQCB. Application of these control measures at each construction site would lessen the effect of construction activity on surface waters and no cumulative impact would occur.<br>In rural portions of the County development projects rely on septic systems that could cause a change in the quality of local groundwater if not properly sited and constructed. All proposed septic system must be sited in a location that has been found suitable for such use through percolation testing which provides data to determine the adequacy of soils to percolate waste. All septic systems must also comply with design standards that require buffers from wells and surface waters to meet Central Valley Regional Water Control Board and Placer County Environmental Health Division standards (Placer County 2006). Compliance with these regulations would ensure that each related project mitigates their impact such that no significant cumulative impact would occur. | LTS | None Warranted | LTS |

LTS = Less than Significant PS = Potentially Significant

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| Project operation would increase demand for local groundwater as would related projects in rural settings. However, the project demand for water is controlled by the number of people permitted to visit under the reservation system. In addition, the local geology is fractured and groundwater at the project site is highly localized. All development projects proposing to install groundwater wells must obtain a permit from the County with conditions attached that are designed to protect groundwater. The siting of new wells throughout the County must comply with the Placer County Water Well Construction Ordinance (Placer County Code Subchapter 8, effective July 19, 1990), and California Well Standards, Department of Water Resources Bulletin 74-90, June 1991.<br>Any related project proposed in a floodplain or containing bridge structures spanning a river or drainage have the potential to expose structures and people to flood hazards or contribute to downstream flooding. Constructing park and proposed project facilities adjacent to or across Raccoon Creek or adjacent to the Bear River could expose people and structures to flooding. Facilities potentially exposed to flooding would be constructed to withstand scour and debris flow. | | | |
| **Biological Resources** | | | |
| **Impact:** Land disturbance of the project combined with cumulative projects in the vicinity including roadway upgrades, revisions to the existing County Code (Winery Ordinance), and new commercial development have the potential for adverse effects on special-status species. Each future project would undergo environmental review and would implement site-specific mitigation consistent with regulations of the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and U.S. Army Corps of Engineers that would reduce these impacts to a less-than-significant. If the Placer County Conservation Plan (PCCP) is approved by the Board of Supervisors, it would establish a comprehensive, countywide plan for the conservation of covered natural communities, endangered species, and other less sensitive species of native wildlife and fish, and the County could rely on the process outlined in the PCCP. | LTS | None Warranted | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Public Services** | | | |
| **Impact:** Operation of the project along with occupancy of the related projects would introduce additional activity in the area. To control visitors the Trails Expansion Project will utilize the parking reservation system on the weekends, holidays and other peak days, and the project will be phased over time, so the number of visitors is gradually increased. Project improvements such as the construction of two new bridges to help response times, the construction of new emergency/maintenance roads and emergency helicopter landing zones at the planned parking areas, and the mitigation measure requiring the provision of a Light Rescue Vehicle (LRV), will improve emergency access and response times within the park and Trail Expansion areas. The purchase of the LRV will also enhance response times for surrounding areas of the County outside the Trails Expansion boundary.<br>New sources of potable water and wastewater disposal are required to accommodate the proposed project and related projects. The HFRP Trails Expansion Project would include installation of up to three water tanks in the expansion area, and septic systems within the park and expansion project area. Although soils in the project area exhibit limitations for the installation of septic systems, soil testing has identified suitable soils for septic systems at all three proposed parking areas. Because the HFRP Trails Expansion project would not connect to public sewer or water systems, it would not have a significant cumulative effect on public utilities. | LTS | None Warranted | LTS |
| **Hazards and Hazardous Materials** | | | |
| **Impact:** Neither the Trails Expansion Project nor any related projects would store, use, handle or transport large quantities hazardous materials or emit toxic air contaminates. Therefore, no potential for a cumulative impact would occur. Each project would be subject to local conditions unique to that particular property on which they are proposed. Like the Trail Expansion Project, related projects that would store or use small quantities of hazardous materials such as cleaners, herbicides, or fuel must prepare an accidental-spill prevention and response plan which outlines the proper methods to be used for storage, handling and application of small quantities of materials such as herbicides, gasoline or lubricants for use during maintenance activity. All ongoing uses that could use materials considered to be hazardous must properly train staff in safe handling and use to ensure protection of human health. All hazardous materials would be stored in a designated staging area and a safety hazard plan would also be prepared and implemented to ensure construction workers are not exposed to hazards. Therefore, no cumulatively significant impact on hazards or hazardous materials would occur. | LTS | None Warranted | LTS |

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**Table 2-1. Summary of Project Impacts and Mitigation Measures**

| Impacts | Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|
| **Greenhouse Gas** | | | |
| **Impact:** Climate change is a global issue because GHGs can have global effects, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Greenhouse Gas Emissions and Energy. The project would generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment. However, project emissions would be less than the PCAPCD adopted GHG Bright Line threshold of 10,000 MT $CO_2e$. | LTS | None Warranted | LTS |
| **Wildfire** | | | |
| **Impact:** Cumulative development would introduce new structures and people into a high fire hazard severity zone which increases the risk of risk of wildfire. However, all new development must comply with laws, plans, policies, and regulations related to fire safety and wildfire suppression and pay development impact fees to contribute towards staffing and equipment. The Trails Expansion Project would implement management actions and fire response facilities that would reduce the risk of wildfire and provide physical improvements in the form of helicopter landing pads, water storage, and a Light Response Vehicle that would benefit the entire area. No cumulative impacts are anticipated. | LTS | None Warranted | LTS |

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# 3.0 PROJECT DESCRIPTION

Placer County (County) owns and operates Hidden Falls Regional Park (HFRP) in Auburn, California. HFRP originally opened in 2006 with about 221 acres, and the County subsequently added another 979 acres in 2013. It contains approximately 30 miles of natural-surface, multi-use trails and two waterfall overlooks. Establishment and operation of HFRP was evaluated in a California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) certified by the County in January of 2010. See Section 1.0, Introduction, of this SEIR for more information on the prior environmental review process.

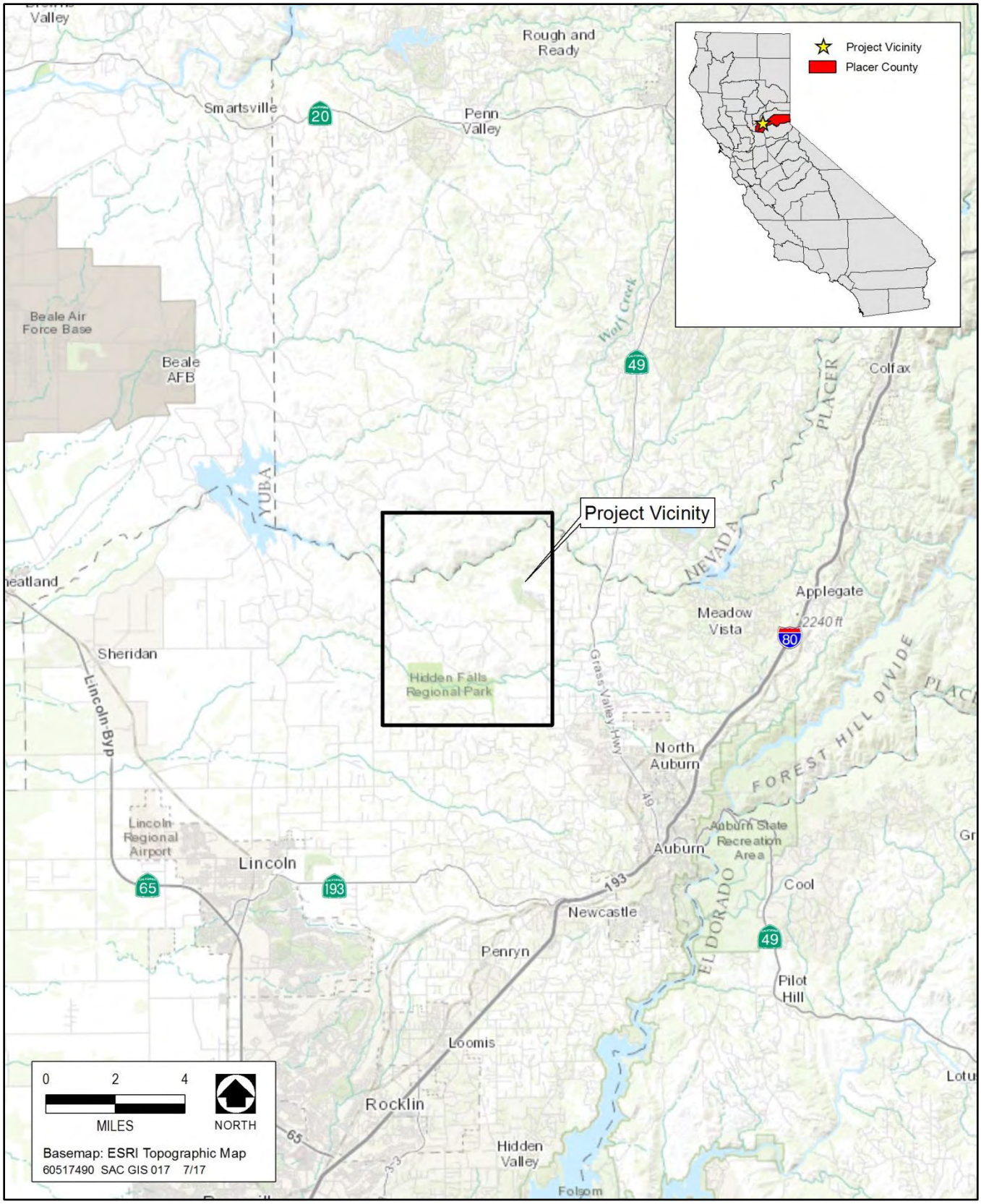
The County is currently proposing to expand the HFRP trail network onto additional lands either owned by the Placer Land Trust (PLT) or where PLT holds Conservation Easements and where the County holds trail easement rights, or onto land the County owns or has trail easement rights. Additional access and parking areas are also proposed. Copies of all relevant trail easements are included in Appendix B of this SEIR. To analyze the potential impacts on the environment resulting from this expansion of the trail system and access points including additional parking (i.e., the Proposed Project), the County has prepared this Subsequent EIR (SEIR) pursuant to the State CEQA Guidelines Section 15162. This SEIR describes and evaluates all potential direct, indirect and cumulative environmental impacts of the proposed new trails and access areas (proposed project) and associated uses.

This chapter provides information on the location of the trail network expansion areas, the existing setting, project objectives, the proposed trails, parking areas, and other facilities, construction and operations, and required permits and approvals. Chapter 17.0, “Alternatives” describes and compares the potential impacts of selected project alternatives, including the no project alternative.

## 3.1 PROJECT LOCATION

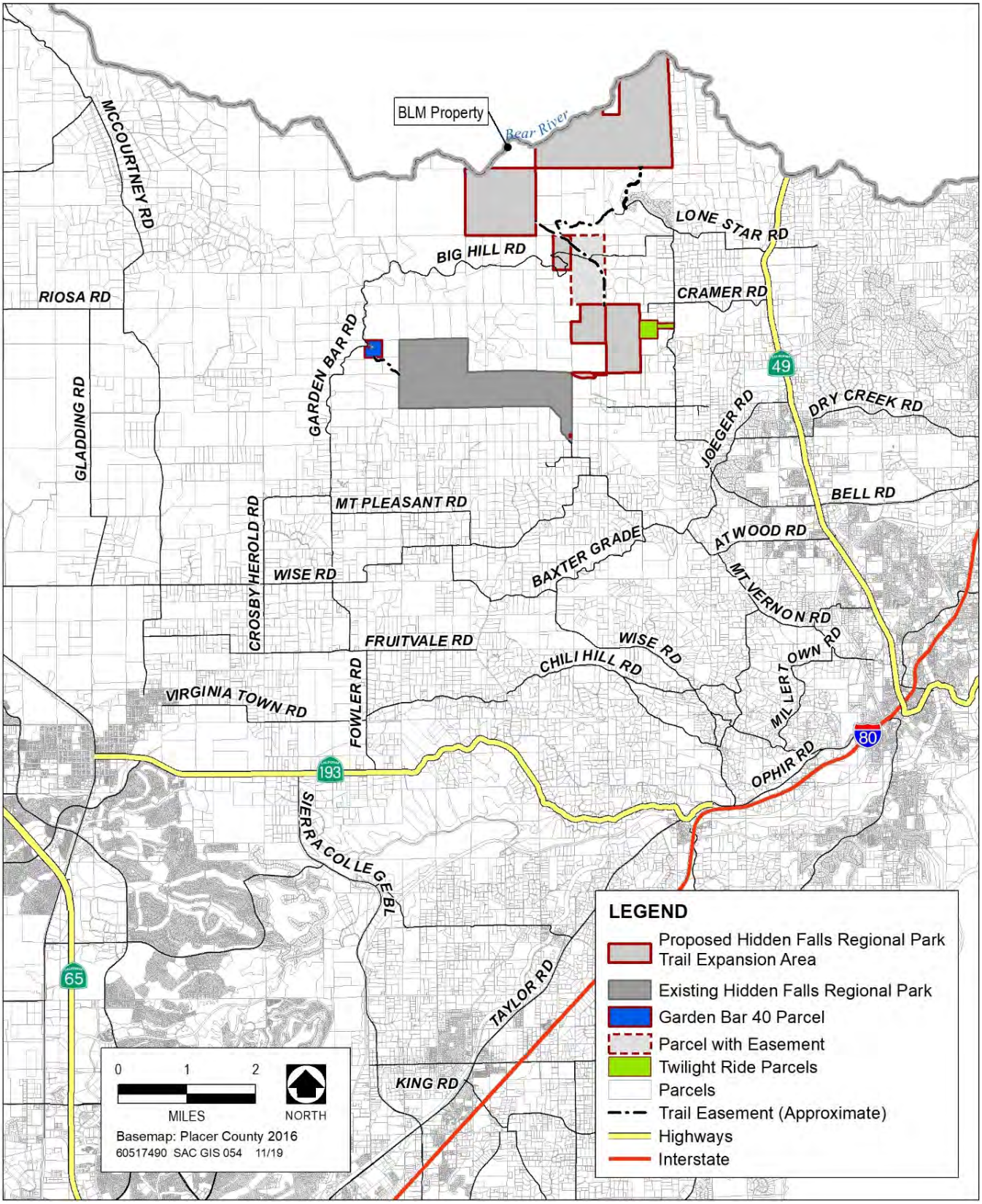
The proposed trail expansion areas are located northeast of the existing HFRP, and south of the Bear River in Placer County, approximately 40 miles northeast of Sacramento (see Exhibit 3-1), as well as to the west and east of the park. HFRP currently encompasses approximately 1,200 acres in the Sierra Nevada foothills, consisting of portions of family ranches previously owned by Spears (979 acres) and Didion (221 acres).

The existing park has two access points that were analyzed and permitted with the original EIR in 2010. The first access point is located off Mears Place and is currently the only allowable public parking area and entrance to HFRP. The second permitted access point is off Garden Bar Road but is not currently developed for public parking or access. However, access for County staff, contracted ranger staff and emergency personnel is available via both the Mears Place and Garden Bar entrances. Exhibit 3-2 shows the project area including regional highways (e.g., State Route 49) and local roads, including Big Hill Road through the center of the project area; Mt. Pleasant Road and Mt. Vernon Road to the south; Bell Road, Cramer Road, and Lone Star Road to the east; and Garden Bar Road to the west.




Source: AECOM 2019

**Exhibit 3-1. Regional Location Map**




Source: AECOM 2019

**Exhibit 3-2. Project Vicinity Map**

## 3.2 EXISTING SETTING

### 3.2.1 EXISTING REGIONAL PARK

The existing HFRP covers 1,200 acres and has approximately 30 miles of natural-surface, multi-use trails, with public parking located at Mears Place. The trails within the park cross Raccoon Creek and Deadman Creek via bridges in three locations. Raccoon Creek flows through the park from east to west and Deadman Creek joins Raccoon Creek from the south. Natural surface emergency access roads (which also double as internal backbone trails) are located on both sides of Raccoon Creek and enable rangers and emergency response vehicles to access the entirety of the park. Existing HFRP amenities include two waterfall overlooks, interpretive displays, restrooms, drinking fountains, picnic areas, benches, trash receptacles, and hitching posts and horse-watering areas for equestrians.

Since fully opening to the public in 2013, HFRP has grown substantially in popularity and visitation. As a result, beginning in 2014, the parking area at Mears Place had become congested on holidays and weekends during good weather, and visitors were frequently turned away during these peak-use periods.

The County Parks Division subsequently implemented new measures to rectify the existing parking issues, and to lessen impacts on nearby landowners. These measures include:

- Installing “No Parking” signs on Mears Place, Mears Drive, and an approximately 2-mile segment of Mount Vernon Road.
- Encouraging visitors to use HFRP during off-peak days and times, carpool, and arrive early.
- Establishing social media sites (i.e., Facebook and Twitter) to provide up-to-date information on parking lot status. These websites, along with the web-cam discussed in the next bullet, enable potential park visitors to check parking availability before driving to the park.
- Installing a web-cam with a view of the Mears Place parking area to provide real-time information on parking availability at: https://www.placer.ca.gov/2623/Webcam.
- Reconfiguring the Mears Place entrance to enhance traffic flow. This included minor paving, signage, and pavement striping to change the direction of traffic and create a one-way flow (See Exhibit 3-3).
- Establishing an automated reservation system to help regulate parking on weekends, holidays and other high use days. Implementation began September 1, 2017. Reservations are obtained online by patrons prior to arrival at the park, thereby minimizing unnecessary vehicle trips to/from the park and reducing vehicle trips on the local roads. Visitors make reservations via an online calendar linked to the HFRP web site[1].
- Constructing an entrance gate/ticket kiosk area (with attendant or automated) to support the reservation-based system of entry.

[1] https://secure.rec1.com/CA/placer-ca/catalog

**Exhibit 3-3. Mears Entry**

The County is utilizing the knowledge gained from these management efforts to plan parking areas for the expanded trails system so that new parking and access to the trailhead areas function smoothly from the outset. Data from current use has been utilized in this SEIR to evaluate long-term management strategies, provide for sustainable parking solutions that limit impacts on adjoining neighborhoods, improve the current user experience, and define future opportunities.

The existing conditional use permit (CUP) for HFRP, CUP No. 20090391 approved on January 28, 2010, allows for an additional parking area at the western end of the park, with access via Garden Bar Road. Pursuant to the existing CUP, and as described in the 2010 certified EIR, full access at Garden Bar is allowed in phases with associated new roadway improvements. Revisions to the CUP considered in this SEIR forecast a limited, reservation-based access from Garden Bar Road in Phases 1A, 1B, and 1C that would require minimal off-site road improvements. Phase 2 and 3 from the original CUP are also included within the revised CUP request and would require the roadway improvements approved in 2010. Since approval of the current use permit, the County has acquired an additional 40-acre parcel of land, referred to in this document as the "Garden Bar 40 parcel." The Garden Bar 40 parcel connects to the park via an existing easement (Exhibit 3-4). The County is proposing to change the location of the parking lot on the western side of the park to the Garden Bar 40 parcel with a gated entrance where visitors would enter their reservation access code. Minor changes to the planned access road from Garden Bar onto the Garden Bar 40 parcel are described below in Section 3.4.4, Parking and Access.

### 3.2.2 2019 – Proposed Trails Expansion Area

The project proposes to expand the trail network to the northeast, east and west of the existing HFRP, and south of the Bear River, with interconnections to existing trails within the park. The trail expansion area has few roads and includes expansive undeveloped lands within the Raccoon Creek and Bear River watersheds. The area is characterized by blue oak woodland and oak-foothill pine woodland and lies within the boundary of the proposed *Placer County Conservation Program* currently under development. Exhibit 3-4 shows the boundaries of the trail expansion properties and the planned alignment of the proposed new trails. The land surrounding the trail expansion areas consists of rolling hills and is comprised of primarily private lands used for agriculture, grazing, and rural residences.

Land proposed for inclusion in the expanded trails network includes Harvego Bear River Preserve (Harvego Preserve), Taylor Ranch Preserve (Taylor Ranch), Kotomyan Big Hill Preserve (Kotomyan Preserve), and Outman Big Hill Preserve (Outman Preserve) (Exhibit 3-4) which are owned in fee by the PLT. The Liberty Ranch Big Hill Preserver (Liberty Ranch) property is privately owned; however, the PLT holds a conservation easement on the property and the County has a dedicated trail easement within

the property that connects to the other PLT-owned parcels. The County's trail easement on the Liberty Ranch property is limited to a previously-surveyed 15-foot-wide corridor, and the trail easement on Taylor Ranch was required to be surveyed along its planned alignment and was recorded as a linear easement. The trail easements on the Harvego Preserve areas are "blanket" in nature and not limited to prior established corridors. Taylor Ranch (321 acres) has an existing 3 1/2-mile loop trail that also connects to a 2 1/2 –mile existing trail loop on the 160-acre Kotomyan Preserve to the west. Liberty Ranch (313 acres) is a cattle ranch currently under Williamson Act contract with no existing trails. The Outman Preserve (80 acres) also has no existing trails. Harvego Preserve (1,773 acres) has a working cattle ranch and an extensive network of existing dirt ranch roads and some trails built by the PLT. This parcel connects to the other trail expansion areas via an existing easement. The Twilight Ride property is located adjacent to Taylor Ranch and is accessed directly off of Bell Road. The County-owned connectivity parcels and easement areas directly east of the HFRP abut Raccoon Creek, and connect the existing HFRP with the Taylor Ranch parcel.

### TAYLOR RANCH

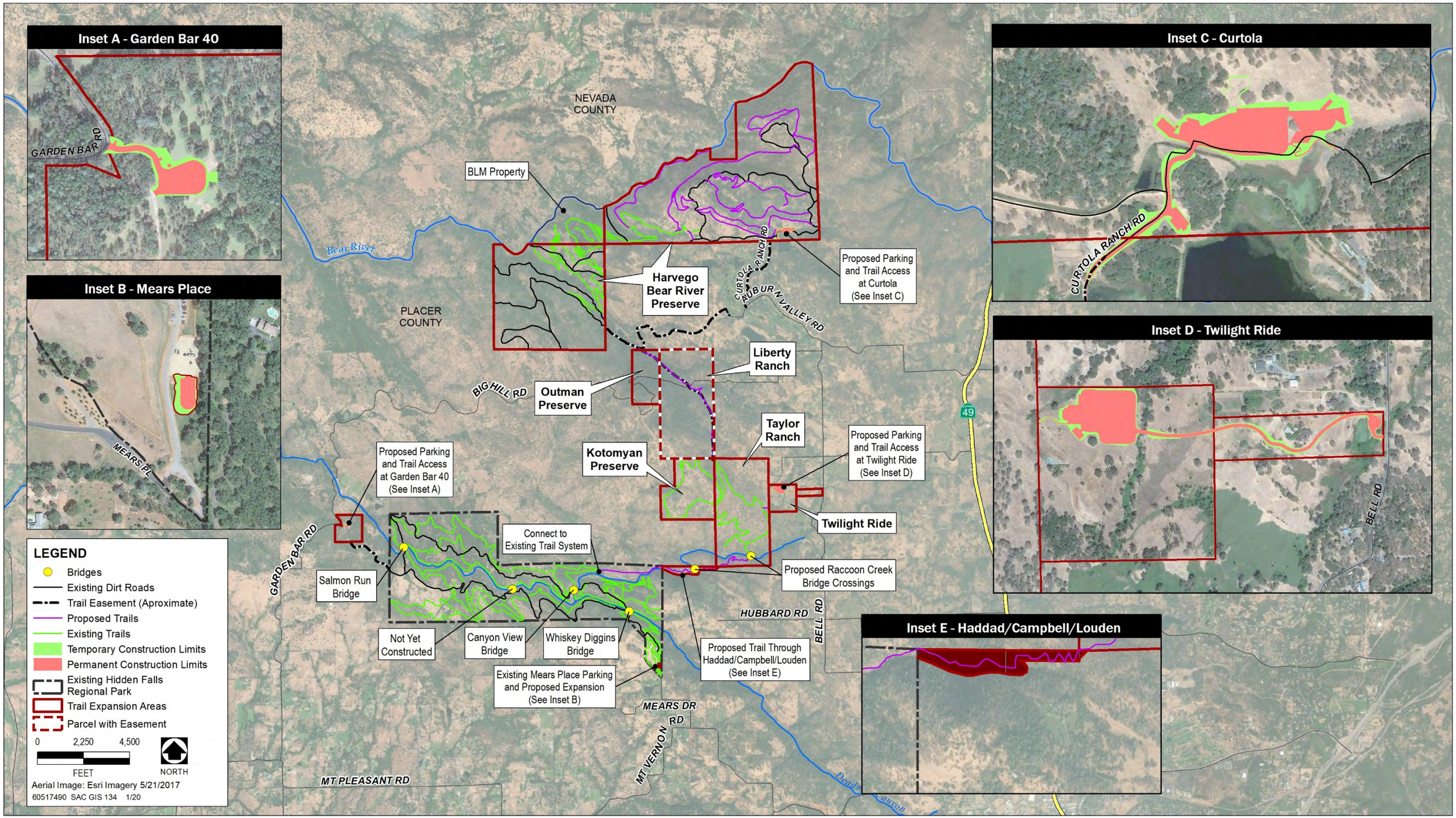
The Taylor Ranch was purchased in 2007 by the Placer Land Trust. County funds were utilized to help with the purchase price, with the agreement to allow for a public, multi-use trail system on the property. Taylor Ranch is approximately 321 acres, and is located at the end of Orr Creek Lane, just north of the City of Auburn, in the unincorporated area of Placer County. It corresponds to Placer County Assessor's Parcel Numbers 026-110-001 and 026-120-028. Taylor Ranch exists between the Kotomyan Preserve to the west and Twilight Ride parcels to the east and touches the southeast corner of the Liberty Ranch parcel to the north. It ties the "Connectivity Parcels" described above to the Kotomyan Preserve and Liberty Ranch. Activities on Taylor Ranch are currently managed by the PLT under the Management Plan for Taylor Ranch. There are approximately 3 1/2 miles of existing natural-surface trails on this property which are utilized for docent-led tours by PLT. The location of Taylor Ranch is shown in Exhibit 3-4.

### KOTOMYAN PRESERVE

The Kotomyan Preserve is approximately 160 acres, and is located on New Hope School Road, just north of the City of Auburn, in the unincorporated area of Placer County. Kotomyan Preserve corresponds to Placer County Assessor's Parcel Numbers 026-081-040 and 026-081-044. It is adjacent to both Liberty Ranch and Taylor Ranch (both of which have been permanently protected by PLT), lies south and west of the corner of these two preserves, and connects the two preserves. Kotomyan Preserve is one parcel removed (about 2,500 feet) from the existing HFRP. Activities on the preserve are currently regulated by the Kotomyan Big Hill Preserve Management Plan and managed by the PLT. There are approximately 2 1/2 miles of existing natural-surface trails on this property which are utilized for docent-led tours by PLT.

### LIBERTY RANCH

In 2007, a Conservation Easement was purchased for the Liberty Ranch. As a part of this agreement, a 15-foot wide multi-use trail easement for the public was established which connects Taylor Ranch and Kotomyan Preserve with the easement leading to the Harvego Preserve. Liberty Ranch is 313 acres in size and located northwest of the City of Auburn and northeast of the City of Lincoln, in the unincorporated area of Placer County. It corresponds to Placer County Assessor's Parcel Number 026-061-013-510. The




Source: Data provided by Placer County in 2002

**Exhibit 3-4. Trail Expansion Area, Access and Bridges with Overlooks**

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topography of Liberty Ranch varies throughout and the site is characterized by perennial and ephemeral streams draining steep rocky outcroppings, oak woodland savannahs, and riparian corridors. Livestock seasonally graze Liberty Ranch.

### HARVEGO PRESERVE

With the County's monetary assistance, the Harvego Preserve was purchased in 2010 for its conservation values and was intended to allow for public use of any existing trails and ranch roads or constructed multi-use trails. As a part of the purchase, the County acquired a Conservation Easement over the property which conveyed to the County the right to construct and operate a non-motorized multi-use trail system and associated facilities, including staging areas, access roads, parking restroom facilities, picnic areas and water and sewer disposal facilities. The 1,773 acre property is located south of the Bear River, west of Sisson Lane, and north of Big Hill Road and corresponds to Placer County Assessor's Parcel Numbers 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, 026-061-068. The Bear River forms the northern boundary line, dividing Placer County from Nevada County and drains the northern part of Placer County. The U.S. Bureau of Land Management (BLM) owns the area between the two portions of the Harvego Preserve and south of the Bear River (Exhibit 3-4). A trail easement across land retained by the Harvego family provides trail access between the two portions of the Harvego Preserve. The main vegetation types on Harvego Preserve are blue oak woodlands, blue oak – foothill pine, montane hardwoods, riparian and riverine habitat, and annual grassland habitat. Bald Rock mountain is the highest point in elevation at 1,694 feet above mean sea level (msl). The Harvego Bear River Management Plan regulates activities on the preserve. The plan governs multiple uses on the property including wildlife habitat, scenic open space, and use for agriculture and recreation.

### OUTMAN PRESERVE

Purchased by the Placer Land Trust in 2012 with the help of County funds, the Outman Preserve is 80 acres in size, and is located northwest of the City of Auburn, on Big Hill Road, in unincorporated Placer County. The County holds an easement to allow for a public, multi-purpose trail on the property. The Outman Preserve corresponds to Placer County Assessor's Parcel Number 026-061-055. The property is characterized by gently sloping blue oak woodlands, steep montane hardwood and foothill pine woodlands, an ephemeral stream, a perennial stream and a riparian corridor with native willow and alder. Over the past several generations, the Outman Preserve has been grazed by cattle, and is currently supporting seasonal cattle grazing.

### CONNECTIVITY PARCELS

In 2013, land and/or easements which connected the existing HFRP with Taylor Ranch were purchased. These connectivity parcels consist of 11.04 acres purchased from the Haddad family (a portion of Assessor's Parcel Number 026-080-073), 6.5 acres purchased from the Campbell family (portions of Assessor's Parcel Numbers 026-080-059 and 026-080-060) as well as a conservation easement for an additional 5.4 acres south of Raccoon Creek (Assessor's Parcel Number 026-080-059), and a multipurpose trail easement over approximately 0.2 acres of the Loudon parcel (Assessor's Parcel Number 026-130-041). These parcels and easements were purchased with the intent to provide trail

connectivity between the existing park area and the trail expansion areas. The location of the connectivity parcels and easements is shown in Exhibit 3-4.

### GARDEN BAR 40 PARCEL

The Garden Bar 40 parcel was purchased in 2016 by Placer County and would provide access and a parking area directly off of Garden Bar Road. An existing easement connects this parcel with the west side of HFRP.

### TWILIGHT RIDE PROPERTY

The Twilight Ride property is comprised of two parcels consisting of a 10-acre parcel (APN 026-110-012) and a 40-acre parcel (APN 026-110-018) and is located in the unincorporated area of Placer County, south of the Bear River. The County entered into a Purchase and Sale Agreement with the owners of the Twilight Ride property in 2018. These negotiations may result in the eventual purchase of the property. Topography of the site is gentle with an elevation differential ranging from approximately 1,075 to 1,240 feet above mean sea level from southwest to northeast. The property lies within the Raccoon Creek watershed and is approximately 0.25 mile north of Raccoon Creek. The property is dominated by annual grasslands with scattered blue oak (*Quercus douglasii*) and patches of blue oak woodland. The 10-acre portion includes an existing single-family residence and various out-buildings. The 40-acre parcel has an existing storage structure near the middle of the parcel. A parking area on the northwest portion of the 40-acre parcel is proposed with this project. The parking area would connect with the existing trails located on Taylor Ranch. An access road would connect Bell Road with the parking area on the 40-acre parcel.

## 3.3 PROJECT OBJECTIVES

The objectives of the Proposed Project are similar to those developed for originally establishing HFRP. However they expand upon the prior objectives to accommodate additional facilities. The following objectives were developed by the County specifically for the proposed trail network and parking expansion:

- Support County goals for trails as outlined in the 2013 General Plan Update Recreational Trails Element Goal 5.C for developing a system of interconnected hiking, riding, and bicycling trails and paths suitable for active recreation and transportation and circulation.

- Implement the recreational resource objectives of the Placer Legacy Open Space and Agricultural Conservation Program (available at https://www.placer.ca.gov/3420/Placer-Legacy), beginning on page 3-17 that aim to enhance recreational opportunities in the County by improving public trail access, including the construction of staging areas and parking lots, as well as the purchase of public access easements on private land to provide connections to public land and city trail connections and provide regional recreational facilities in the foothill region, supplementing the recreation opportunities provided on public lands to the east and municipal park facilities in urbanized areas. South Placer residents would be served by one or more large regional parks (300 acres or greater) in a rural setting with a variety of passive recreation opportunities. Such a park may be connected with larger area of protected land, providing additional wildlife habitat value.

- Provide expanded opportunities for public passive recreation and educational access without overburdening natural resources, local roadways or adjacent communities.
- Expand the existing multi-use, natural-surface trail system to provide recreational opportunities for the residents of Placer County and the region, while maintaining safety for park users, visitors, and nearby residents.
- Create new areas for public parking that function smoothly from the outset.
- Create connectivity between the existing trails in HFRP and the expanded trail network.
- Expand on opportunities for natural, cultural, agricultural and historic resource education, fostering stewardship and environmental awareness.

## 3.4 2019 – PROPOSED PROJECT COMPONENTS

Since 2007, the County has partnered with the PLT to preserve approximately 2,765 acres of open space located north and east of HFRP (see Table 3-1) with the expressed purpose of allowing public recreation on the properties. These lands, as well as connecting areas directly east and west of the existing HFRP that are either owned or held in easement by the County, would accommodate the proposed expansion of HFRP's public trail network and associated facilities. The expanded trail network would link the existing HFRP to the Bear River, creating a network of more than 60 miles of multi-use trails. The expanded trails network would connect Taylor Ranch to existing trails in HFRP via the connectivity properties purchased by the County east of HFRP (Haddad and Campbell properties) and easements acquired (Loudon property). Additional easements through Liberty Ranch and the Outman Preserve connect the Taylor Ranch and Kotomyan Preserve to future and existing trails and ranch roads within the Harvego Preserve. A new parking area proposed for the Twilight Ride property would allow public access directly off of Bell Road and would provide an intermediate parking area located between the existing parking area on Mears Place, and the most northerly parking area proposed for the Harvego Preserve. A summary of the primary amenities available at the existing HFRP, those proposed as part of the current project, and the resultant total of the expanded park/trail network at buildout of the proposed project is provided in Table 3-1.

The County's discretionary actions associated with the expanded trails network would include approval of an amended CUP covering the existing HFRP and the trail and access expansion areas, including the designated lands to the northeast, the Garden Bar 40 parcel west of the existing HFRP that was acquired by the County in 2016, and the areas east of the park that connect to Taylor Ranch. The amended CUP would cover:

- Expanding the HFRP trails network from 30 miles to approximately 60 miles through the addition of existing trails and construction of new trails within the lands owned or held in conservation easements by the PLT, or on lands owned by Placer County, or where the County holds trail easements;
- Constructing two additional bridges over Raccoon Creek and one major culvert crossing over a tributary to Raccoon Creek between the existing HFRP trail network and Taylor Ranch;

- Adding parking and access areas improvements, including parking and access at Harvego Preserve off Curtola Ranch Road for access to the northern areas of the expanded trail network, on the Twilight Ride property off of Bell Road to provide access midway through the expansion area, as well as the parking area on the Garden Bar 40 parcel for access to the western end of the expansion area;

- Changes from the previously approved access and parking area from Garden Bar Road on the west side of HFRP to access and parking planned on the newly acquired Garden Bar 40 parcel;

- The addition of up to 25 more overflow automobile parking spots at the Mears Place entrance;

- Identifying and clarifying the type and size of events allowed at the Garden Bar entrance and facilities allowed within the existing HFRP and expansion area;

- Construction of supporting facilities including restroom facilities, water wells, stream crossings, viewing platforms, picnic areas, benches, signage, drinking fountains, animal proof trash/recycle receptacles, fire suppression facilities, emergency/maintenance access roads, equestrian facilities, fencing;

- Allowed uses including recreational uses, grazing, agriculture, nature/cultural education, organized events (i.e. cross country track meets, docent led tours), film & theater production, hunting and fishing (fishing according to CA Dept. of Fish and Wildlife Freshwater Fishing Regulations, depredation hunting by County/federal wildlife specialists); and

- Management means and methods including hours of operation, use of reservation system, operation of public water supply permit(s) and Transient Non-community Water System permit(s), regulatory compliance.

The County anticipates that the trail expansion will result in a modified CUP that will supersede the existing CUP No. 20090391 and will encompass the allowed uses and operating principles within the existing park as well as the expansion areas. As part of the proposed modification, the types of allowed uses and facilities within the existing park and the trail expansion areas will be clarified. The types of facilities proposed within the trail expansion areas include a natural-surface, multi-use trail system, bridges, overlooks, benches, kiosks, picnic areas, trash receptacles, drinking fountains, accessible amenities, equestrian amenities (horse watering facilities, hitching posts), as well as access and parking areas (with associated restrooms, wells, septic areas and emergency response landing zones). Allowed uses within the expansion areas would include use of a multi-purpose trail system by hikers, bicyclists and equestrians, as well as the provision for outdoor education classes, grazing and other agricultural uses, fishing, depredation hunting, and film and theater production (subject to County Film Permit requirements).

County staff also intends to request that disc golf, which was allowed with the original use permit, be removed from the list of allowed uses under the modified use permit within the HFRP and HFRP Trail Expansion areas.

**Table 3-1. Existing HFRP and Proposed Expansion**

| Improvement | HFRP (Existing) Approved and Built | HFRP Approved, Not Built Yet | Proposed Expansion | Combined |
|---|---|---|---|---|
| **Coverage Area**[1] | 1,200 acres | - | Approximately 2,765 acres | Approximately 3,965 acres |
| **Trail Network**[1] | 30 miles of trails (6 miles from Didion portion and 24 from Spears portion) | - | 30 miles of trails | 60 miles of trails |
| **Bridges and Stream Crossings** | 3 major bridges<br>13 trail bridges<br>23 stream ford crossings<br>15 culvert crossings | 1 major bridge<br><br>-<br> | 2 major bridges<br>15 trail bridges<br>30 stream ford crossings<br>20 culvert crossings | 6 major bridges<br>28 trail bridges[1]<br>53 Stream ford crossings[1]<br>35 culvert crossings[1] |
| **Educational** | | | | |
| Nature Center | - | 1 nature center | - | 1 nature center |
| Information Kiosks | 2 kiosks | - | 3 kiosks | 5 kiosks |
| **Picnic Areas** | 6 | - | 12 | 18 |
| **Scenic Overlook** | 2 | - | 3 | 5 |
| **Caretaker Residence** | | | | |
| House Rehab | 0 | 1 (existing, but not rehabilitated yet) | 1 Existing residence at Twilight Ride. Could be utilized for caretaker's residence in the future | 2 |
| **Access Improvements** | | | | |
| **Access (County Managed)** | 1 Mears | 1 Garden Bar | 2 points of access (Twilight Ride and Harvego) | 4 points of access |
| Reservation System | Mears - Operational | - | Expand to new parking areas, including Garden Bar 40 | Covers all parking lots |
| Web Cam | Mears - Operational | - | Expand to new parking areas | Covers all parking lots |
| Signage – Entrance, directional, wayfinding, regulatory and interpretive | Completed for Mears Entrance | Approved for Garden Bar entrance, Not Complete | Additional Signage | Additional signage |
| Striping | - | Approved for Garden Bar Road, Not Complete | Striping of Garden Bar Road in Phase 1A | Garden Bar Road |
| Pull Outs | - | Approved for Garden Bar Road, Not Complete | Garden Bar Road - Phase 1B; Curtola Road – Phase 2: add pullouts | Garden Bar and Curtola Roads |
| Widening | - | Approved for Garden Bar Road, Not Complete | Curtola Road – Phase 3: widen road to 20 feet. | Widen Garden Bar and Curtola Road |
| Curve Improvements | - | Garden Bar Rd – Phase 2, improve vertical curves, Phase 3, improve horizontal curves | | Phases 2 and 3<br>Improve curves on Garden Bar Road |
| Dedicated Turn Lane | - | Not Complete | Twilight Ride – Phase 2 -Add left turn pocket on Bell Road | Construct left turn pocket – Bell Road |
| Gated Public Access Road | 1 (Mears) | 1 (Garden Bar Road gated access not currently open to general public) | Add gated access to Twilight Ride, Harvego, and new Garden Bar 40 entry | Construct gated access points |
| **Parking** | | | | |
| Autos | 101 spaces at Mears (including paved and gravel areas) | 45 spaces at Garden Bar | 98 auto spaces at Twilight Ride<br>115 auto spaces at Harvego<br>25 auto spaces at Mears | 384 auto parking spaces |
| Trailers | 12 at Mears | 20 spaces at Garden Bar | 38 trailer spaces at Twilight Ride<br>10 trailer spaces at Harvego | 80 equestrian trailer parking spaces |
| Americans with Disabilities Act (ADA) Compliant | 4 spaces at Mears | 5 spaces at Garden Bar | 4 ADA spaces at Twilight Ride<br>5 ADA spaces at Harvego | 18 ADA parking spaces |
| **Emergency Response** | | | | |
| Helipad | 3 | - | 2 (Twilight Ride and Harvego) | 5 |
| Water Tanks with hydrants | 1 (12,000 gallon) | - | 3 (12,000 gallon) at each of the new parking areas | 4 |
| Shaded Fuel Breaks | 3 (120 acres total) | | 2 already constructed on Harvego (90 acre and 30 acre) | 5 |
| **Water and Sanitation** | | | | |
| Groundwater Well | 2 existing | 1 – Garden Bar parking area | 2 groundwater wells (Twilight Ride and Harvego) | 5 |
| Septic Systems | 2 (1 at Mears entrance, 1 serving existing ranch house at west end of HFRP) | 1 – Garden Bar parking area | 2 septic systems (Twilight Ride and Harvego) | 5 |
| Permanent Restrooms | 1 building with 2 stalls (10 portable restrooms) plus 2 restrooms at existing ranch house (not public) | 2 – Garden Bar parking area and nature education / camping area | 2 permanent restroom buildings, one each at Twilight Ride and Harvego (6 stalls) | 5 |
| Portable Restrooms | | Portable restrooms at strategic locations | Portable restrooms may be used until permanent restrooms are constructed and for convenience within the trail network | Approximately 20 |

Source: AECOM 2019; Placer County 2019

[1] Acreages and trail mileages, as well as number of trail bridges, stream ford crossings and culvert crossings are approximate

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Additionally, the preliminary plan for horse boarding and concessions listed as project components for the Twilight Ride property in the 2018 Notice of Preparation (NOP) have been removed from the Project Description of this SEIR due to input from surrounding neighbors as well as the financial infeasibility of horse boarding at the scale proposed.

Lastly, the allowance for a limited number of privately-owned parking areas adjacent to the park boundaries (with a total capacity between the privately-owned parking areas of 60 parking spots) has been removed from the Project Description since the Revised NOP was published.

### 3.4.1 MULTI-USE TRAILS

**Exhibit 3-5. Survey Team**

The expanded trails network shown in Exhibit 3-4 would connect existing HFRP trails with areas and trails owned or held in conservation easement by the PLT, and areas owned by the County or where the County has easements. Trail use would be limited to hiking, bicycling, and horseback riding. No motorized vehicles, other than maintenance and emergency response vehicles, and vehicles that provide accessibility assistance consistent with the Americans with Disabilities Act (ADA) and related law, would be allowed within the trails expansion area. County staff is monitoring the rising popularity of electric bikes (e-bikes), and will make recommendations to the Board of Supervisors on their regulated use within public recreation areas through the Public Recreation Ordinance (Placer County Code Section 12.24) as standards and policies are developed throughout the industry. The expanded trails network would include existing trails, existing dirt roads and paths, and new trails based on the proposed trail layout developed jointly by the County and the PLT. The preliminary layout accounts for approximately 30 miles of additional multi-use trails. The layout was developed based on each area's opportunities and constraints, including topography, drainage crossings, locations of cattle operations, and scenery. Trail refinements were based on resource surveys (see Exhibit 3-5) completed by the County and PLT for the connectivity study conducted between the existing HFRP and Taylor Ranch in 2012, and in 2016 and 2017 to support this SEIR.

The recent biological surveys conducted in support of this SEIR (Appendix I) included reconnaissance-level wildlife surveys, special-status plant surveys, a wetland delineation (Raccoon Creek, ephemeral and intermittent drainages, seasonal wetlands), and a tree assessment. The recent cultural resources surveys completed for this SEIR included an archaeological pedestrian survey of the proposed new trails (and parking and associated facility areas), an assessment of potential paleontological resources, and consultation with Native American tribes.

Based on mapping of natural and cultural resources, the County refined the trail alignments and marked and digitally recorded the planned alignment in the field. The shape files will be used to stake or flag future trail segments in the field prior to construction, and to guide construction crews in the field. The trail alignments were recorded using high precision hand-held Global Positioning System (GPS) units in coordination with previous

trail location data collected for existing and planned trails by the County and the PLT. Data recorded were then used to create a master alignment to guide further refinement of the design. Trail attributes collected in the field included existing trail status (dirt ranch road or dirt trail), canopy coverage, and slope.

The proposed trail alignments are located within existing trail easements established over portions of the expansion area. However, the final trail alignments could require adjustment of the easements in some places. Trail alignments within the easement over the Liberty Ranch property are limited to a 15-foot-wide corridor, and trail alignments on Taylor Ranch and the Kotomyan Preserve were designed and previously constructed as described above. The County has "blanket" trail easement rights over the Harvego Preserve, owned in fee by the PLT, which presents more flexibility to adjust future trail refinements. Should further refinements be needed based on constructability assessments or during construction based on field conditions, presence of biological or cultural resources, or permit requirements, the constructed alignment would be recorded, marked on as-built drawings, and any necessary adjusted trail easement documentation would be kept on file by the County and the PLT. The trail design would be similar to the existing trails within HFRP, as shown in Exhibit 3-6.

**Exhibit 3-6. Hidden Falls Regional Park – Existing Trail Segment**

The proposed project also includes, and this SEIR evaluates, potential future development of additional trails within the PLT-owned parcels but not depicted in Exhibit 3-4 is a possibility, but not addressed in this SEIR. These trails could be added in the future in areas where the County's trail easements are "blanket" in nature. These could include additional trail segments to provide connectivity or to provide additional recreational opportunities. Any new trails would be constructed within trail easements that would be obtained from the PLT or other willing landowners. Additional trails and associated amenities may be developed specifically for the benefit of visitors with physical handicaps, above and beyond minimum compliance with the ADA. Future trails could also be constructed to provide connectivity with the Bear River and recently constructed BLM trails located north of Harvego Preserve (Exhibit 3-4). Additional trails and amenities planned, designed and completed in the future would be addressed in future tiered CEQA documents as appropriate and would require additional resource surveys prior to completion.

### 3.4.2 AMENITIES

The proposed new trails would be outfitted with amenities similar to those currently available in HFRP. These would include accessibility features compliant with the ADA, drinking water fountains, restrooms, on-site groundwater wells, fire suppression facilities, equestrian features (e.g., horse watering, hitching posts), picnic areas, observation decks at scenic vista points, benches, bear-proof trash receptacles, landscaping and irrigation,

**Exhibit 3-7. Hidden Falls Regional Park – Existing Picnic Area near Raccoon Creek**

**Exhibit 3-8. Hidden Falls Regional Park – Existing Major Bridge over Raccoon Creek**

and interpretive displays. Exhibit 3-7 shows an existing picnic area within HFRP near Raccoon Creek. Future picnic areas in the Proposed Project would be similar in type.

Recreational opportunities could also include access to fishing locations along Raccoon Creek and the Bear River. To provide trail connectivity, the County would construct two bridges over Raccoon Creek. Many rock/culvert passages and timber bridges over intermittent streams would also make interconnections within the existing and proposed trail system. One tributary of Raccoon Creek that lies between HFRP and Taylor Ranch would require spanning with multiple culverts, box culverts, or a bridge.

### 3.4.3 Bridges and Creek Crossings

Similar to bridges previously proposed and approved for the HFRP and considered in the prior EIR, new bridges would be designed to minimize impacts on stream hydrology and wildlife. Future bridges would be similar to existing bridges in design (see Exhibit 3-8).

Bridge 4 is proposed in a narrow canyon and would be accessible by pedestrians, equestrians, bicyclists and vehicles used by County Parks and contracted ranger staff, Placer Land Trust staff and Emergency Medical Response personnel. The bridge design anticipates a total span of approximately 128 feet long and 10 feet wide that will be supported by two intermediate center columns. The abutments would likely be concrete; however, the selected materials would be determined during final design. Decking and other structural components may be made of weathering steel, fiberglass, concrete, steel cable, or other suitable materials. Local rock or imitation rock may also be used as facing on concrete abutments.

Bridge 5 is planned as a pre-manufactured steel truss bridge approximately 100 feet long and 12 feet wide. It will be accessible to Emergency Medical Response and County Parks and contracted ranger staff vehicles, as well as pedestrians, bicyclists and equestrians.

Exhibit 3-9 provides additional detail regarding the proposed bridge locations within trail easements acquired by the County to connect the existing HFRP and Taylor Ranch.

The County would also construct pedestrian/equestrian footbridges or culverts over intermittent drainages throughout the expanded trails network where crossings are necessary. Like existing footbridges, they would be designed to fit the rustic character of the surroundings and may require construction or replacement of culverts or construction of rock-lined stream crossings. Rock fords would be placed in ephemeral drainages to provide a level surface and prevent erosion.

### 3.4.4 PARKING AND ACCESS

The extent of new and expanded parking areas proposed as part of the project is based on an evaluation of parking demand for the existing HFRP. The parking demand evaluation was derived from an analysis of usage patterns from both peak usage times during holiday and weekend conditions (during mild weather) as well as off-season during mid-week (July–August 2016, and November 2016–January 2017). Usage rates were determined by counting the following:

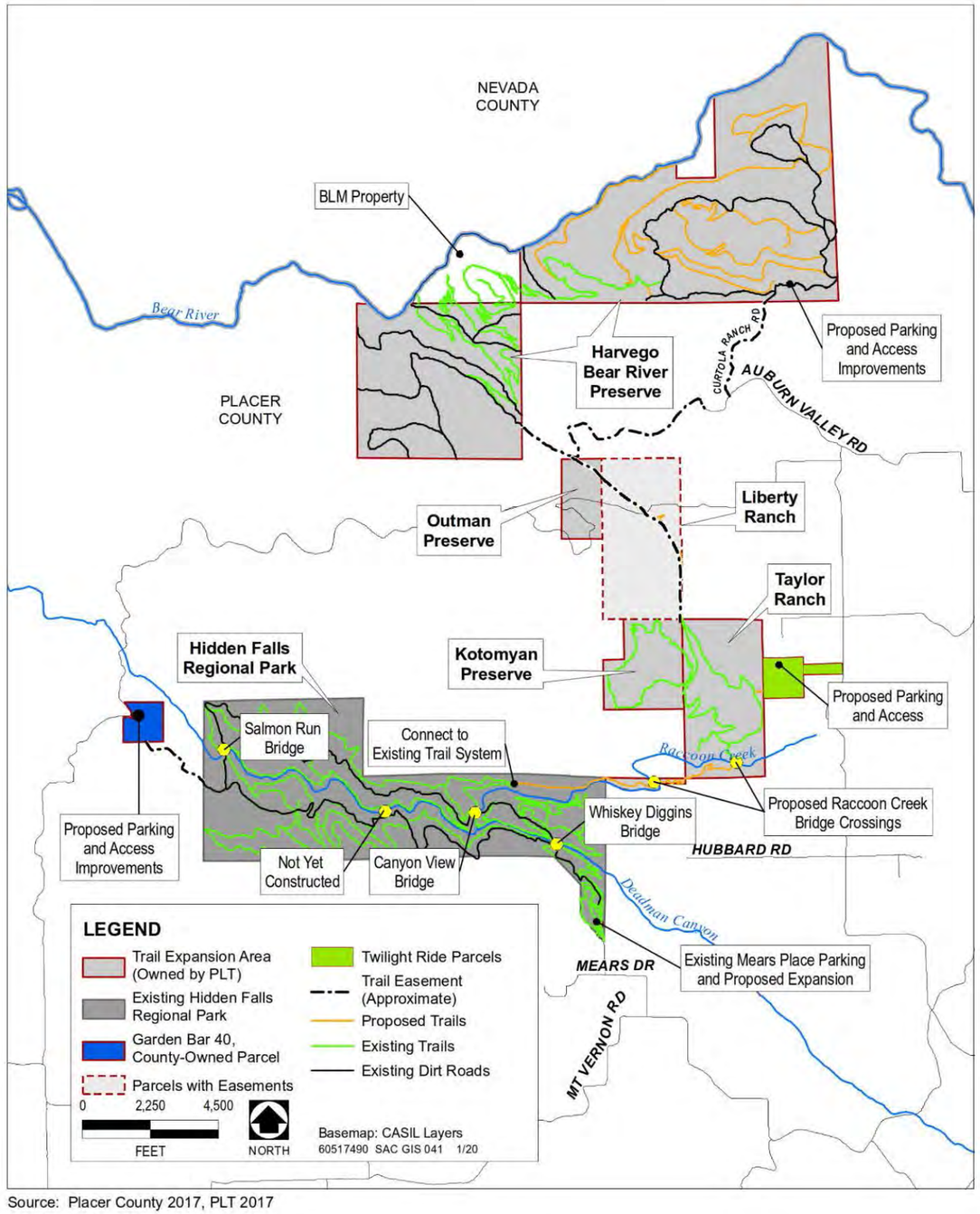
- number of cars parked at the Mears parking area on four Saturdays,
- the type of vehicle (i.e., with and without trailer),
- the number of vehicles turned away, and
- the average visit duration.

Peak parking demand was compared to the available regular and overflow parking supply (see Section 8.0, Transportation and Traffic). The County evaluated the extent to which these demand forecasts could be accommodated on-site and through parking management measures, such as the new reservation system and extending those measures to the new parking areas. However, as described above for trails, the specific parking area locations and layouts were based on opportunities and constraints analysis and the results of biological and cultural resources surveys.

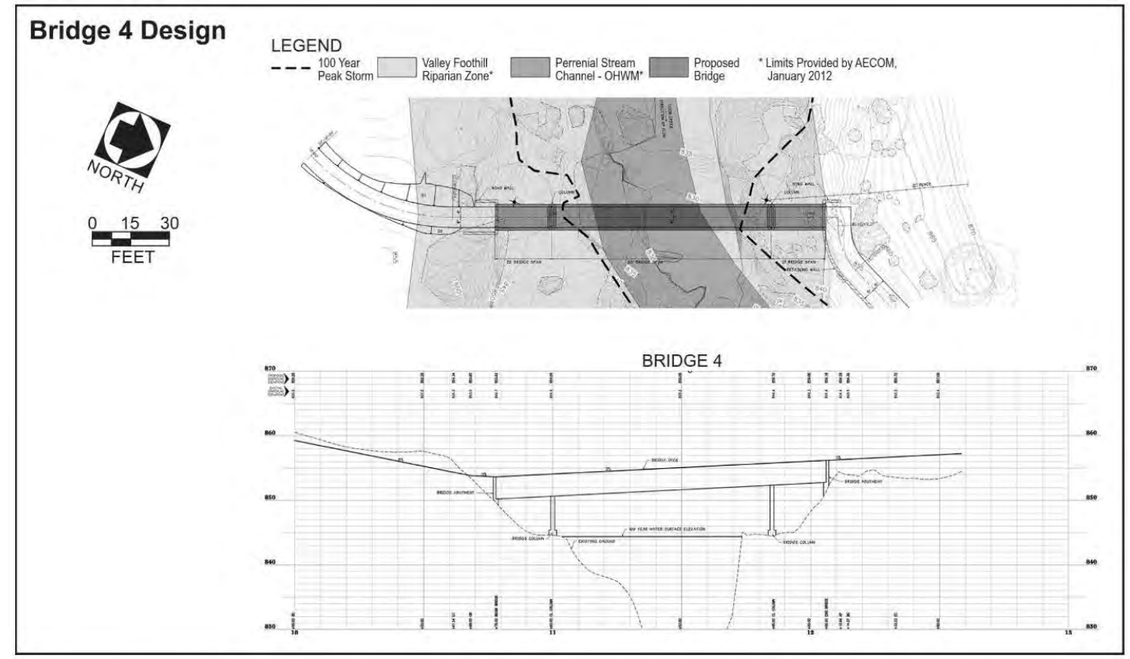
The following subsections describe the County's proposed plan for parking and the proposed expanded and new parking areas associated with the Proposed Project.

#### MEARS PLACE

Between 2014 and when the reservation system was implemented in 2017, the demand for parking in the existing HFRP parking area off Mears Place regularly exceeded the area's capacity during peak weekends and holidays. According to park records, the County sometimes turned away hundreds of cars per day during the peak usage days. Parking previously overflowed onto area streets, including Mears Drive and Mt. Vernon Road, prompting the Board of Supervisors to impose and enforce parking restrictions that have virtually eliminated off-site parking near HFRP. Additional overflow parking space was created using gravel to alleviate demand during peak usage times. In an additional effort to alleviate parking issues, the County began using social media sites to update the public on parking lot status throughout the day during high use times and installed a web cam to allow people to go online to view the current status of the parking area. While these improvements helped, people were still being turned away due to lack of available parking. In order to reduce the remaining unnecessary vehicle traffic on the local streets and to help ensure that visitors were guaranteed a parking spot on arrival, the County instituted the parking reservation system in September of 2017.




Source: Placer County 2017, PLT 2017



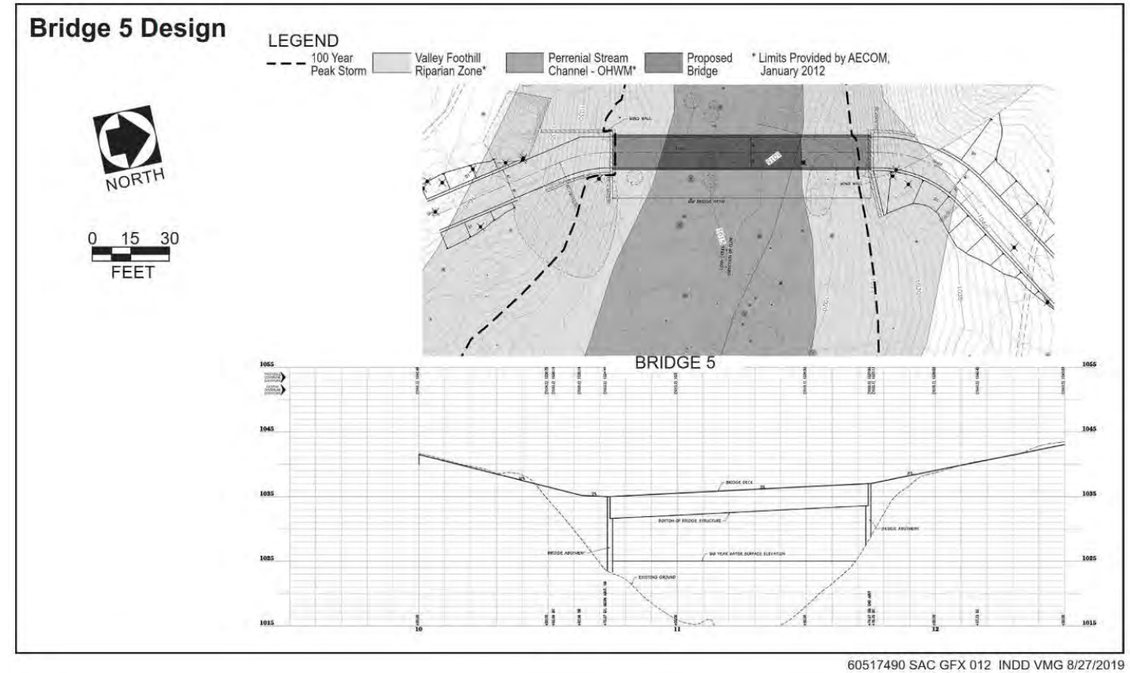




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**Exhibit 3-9. Bridge Improvements connecting Hidden Falls Regional Park to Taylor Ranch Expansion Area**

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Source: Foothill Associates 2019

**Exhibit 3-10. Proposed Parking Expansion at Mears**

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This system requires visitors to obtain reservations online prior to arriving at the park. Since the system was installed, the number of vehicle trips on the local roadways has significantly decreased, making for a better visitor experience and reducing the impact on local residents.

The County is planning to expand the Mears Place overflow parking area for up to 25 automobile spaces as a part of the expansion process. Exhibit 3-10 provides a conceptual parking layout for the site. The additional gravel area for the parking spaces would be added adjacent to the existing overflow gravel parking area. The original approval in 2010 added up to 12 additional equestrian parking spaces at the Mears parking area. Equestrian parking spaces were added and no additional horse trailer spaces are planned for the Mears entrance with the proposed project. The final design and construction will comply with the County's thematic/stylistic (rustic) design guidelines for HFRP. The existing overflow parking area will remain in place.

### GARDEN BAR ROAD

The Garden Bar Road entrance is currently used by neighboring property owners who access their property via the entrance, County employees, maintenance trucks, utility providers, and fire and law enforcement personnel. The existing CUP for HFRP allows for a parking area at the western end of the park that would be accessed via Garden Bar Road. Although three phases of development for the Garden Bar entrance and parking area were approved in 2010, the improvements have not yet been constructed and the Garden Bar entrance is not currently open to the general public. Table 3-2 provides an overview of the proposed revised phasing for the Garden Bar Road entrance. The 2010 Certified EIR contained a detailed phasing plan to develop parking in this area that included within Phase 1 a public access gate, connecting roadway to the existing access road, fencing and cattle guards on the access road, along with a parking area. Phase 1 as described in the CUP included access for occasional classroom-sized groups to the site through the Garden Bar entrance with an appointment.

**Table 3-2. Summary of Access Phasing for the Garden Bar Entrance**

| Permitted Access | Corresponding Improvements |
|---|---|
| **PHASE 1 – Approved in 2010 (but proposed to be modified by the Proposed Project)**<br>**(Garden Bar portions for Phase 1 proposed to be superseded by Phases 1A, 1B, & 1C, as defined below)** | |
| ☐ Trail and emergency access system would be completed throughout the Park and opened for daily public use via existing Mears entrance (Completed)<br>☐ Daily public vehicle access would be restricted to existing Mears entrance (Completed)<br>☐ Mears parking area would be expanded from 55 parking spaces to up to 82 parking spaces (i.e., up to 25 additional paved stalls and 12 additional truck and trailer spaces) including relocating the adjacent helistop. (Completed)<br>☐ Garden Bar entrance would continue to be used by County employees, tenants, contractors, consultants, utility providers, maintenance trucks, and fire and law enforcement personnel without additional improvements (Ongoing)<br>☐ Development of existing ranch house may proceed during Phase 1 (Not yet Completed)<br>☐ Occasional classroom sized groups would be permitted to access site through Garden Bar entrance on appointment basis (gates would be opened and closed behind groups) (Not yet occurring) | ☐ Prior to allowance of classroom sized groups, a new public access gate and approximately 200 feet of connecting road to existing access road would be constructed at the intersection of Garden Bar Road near the existing access road. (Not yet completed)<br>☐ Prior to allowance of classroom sized groups, a 48-inch-high 12.5-gauge woven wire field fence would be constructed along both sides of access road between Garden Bar Road and Park entrance (as applicable per the terms of the 2003 Purchase and Sale Agreement with the Spears family). (Not yet completed)<br>☐ Prior to allowance of classroom sized groups, two cattle guards would be installed at each end of the access road between Garden Bar Road and the Park entrance (as applicable per the terms of the 2003 Purchase and Sale Agreement with the Spears family). (Not yet completed)<br>☐ Up to 25 additional paved parking stalls and up to 12 additional equestrian parking stalls may be developed at the existing Mears entrance. (Completed) |

**Table 3-2. Summary of Access Phasing for the Garden Bar Entrance**

| Permitted Access | Corresponding Improvements |
|---|---|
| ☐ A handicap-placard-only parking area may be constructed near the emergency access bridge (Bridge #1, Salmon Run Bridge). Park use would be regulated through the Placer County Parks Division reservation system. (Not yet Completed) | |
| **PHASE 1A – Proposed** | |
| ☐ Garden Bar 40 entrance improved to allow 25 automobile parking spaces and 5 ADA spaces (Public access allowed only on weekends/holidays/high volume days. Reservation required. Parking spaces only allowed one turn-over per day. | ☐ Improved signage and pavement markings added on Garden Bar Road<br>☐ Provide drivable 12' fire access road reaching from Garden Bar parking area into park as far as reasonably possible<br>☐ Provide CAL FIRE and Knox padlocks on all access gates<br>☐ Provide Helicopter landing zone near Garden Bar western entrance to HFRP (this landing zone is currently in place and verified per CAL FIRE field visit on January 30, 2019)<br>☐ The new Garden Bar vehicle parking areas shall provide designated parking stalls and maintain clear fire access lanes of 20', meet fire equipment turning radius, and be able to support 75,000 pounds load rating<br>☐ Vertical clearances along trails and fire access lanes shall be pruned to a minimum of 15' 0". Vertical clearances shall apply to the planned covered bridge over Raccoon Creek that was approved in 2010<br>☐ Trails shall provide directional signage to guide park users and emergency personnel to points of interest and escape routes (trail signage is in place within existing HFRP)<br>☐ Placer County Fire Department/CAL FIRE shall be given room for an information kiosk for use during peak days for distribution of safety information.<br>☐ Defensible space standards shall be met pursuant to PRC 4291. Defensible space shall be increased as necessary in consultation with Placer County Fire Department staff to account for vegetation types and slopes.<br>☐ A 12,000 gallon water tank and hydrant shall be maintained near the Garden Bar parking area<br>☐ Portable toilets made available until Phase 1C |
| **PHASE 1B – Proposed** | |
| ☐ Number of Garden Bar 40 parking spaces remains the same as in Phase 1A, but public access allowed on a daily basis. Reservation required 7 days/week. Parking spaces may turn over more than once/day. Special events can occur, but total amount of parking spaces utilized at any given time cannot exceed 30. | In addition to Phase 1A Improvements:<br>☐ Pull-outs along Garden Bar Road |
| **PHASE 1C – Proposed** | |
| ☐ Informal overflow areas at Garden Bar 40 parking area and near existing ranch house to accommodate a 200-person event in addition to 30 reservation-based spaces. Special Events limited to 6 days per year. | In addition to Phase 1B Improvements:<br>☐ Special Event Permit Application (SEPA) approval from County Parks required.<br>☐ Construction of Permanent restrooms and septic system (or vault system if adequate well water is not available) |
| **PHASE 2 – Approved in 2010** | |
| In addition to Phase 1A, 1B, and 1C Access:<br>☐ Expansion of the Garden Bar parking area to 50 paved automobile parking spaces. | In addition to Phase 1A, 1B and 1C Improvements:<br>☐ Garden Bar 40 parking area would be expanded to include 50-stall paved parking lot. |

**Table 3-2. Summary of Access Phasing for the Garden Bar Entrance**

| Permitted Access | Corresponding Improvements |
|---|---|
| ☐ Use of existing ranch house for educational and/or meeting purposes, with regulation by County Parks Division reservation system and/or use agreements. Equestrian trailers would be excluded from the Garden Bar western parking area and from entering the Park via Garden Bar Road. Equestrians would continue to enter the HFRP via Mears entrance or other approved and constructed entrances.<br>☐ Use of ranch house for educational and/or meeting purposes would remain regulated by County Parks Division reservation system and/or use agreements. | ☐ Widen Garden Bar Road from Mt. Pleasant Road to entrance access road to 18 feet of hard surface with 2-foot shoulders where feasible, subject to County review and approval.[1]<br>☐ Vertical curves along Garden Bar Road would be improved in accordance with traffic safety report recommendations, subject to County review and approval.<br>☐ Signing and striping improvements along Garden Bar Road would be made in accordance with traffic safety report recommendations subject to County review and approval. |
| **PHASE 3 – Approved in 2010** | |
| In addition to Phases 1A, 1B, 1C and Phase 2 Access:<br>☐ Daily public access for 20 equestrian trailers would be allowed to the western parking area via Garden Bar Road. | In addition to Phase 1A, 1B, 1C and Phase 2 improvements:<br>☐ A gravel equestrian staging area at Garden Bar would be constructed adjacent to the new paved parking area to allow parking for up to 20 horse trailers.<br>☐ Widen Garden Bar Road from Mt. Pleasant Road to the entrance access road to 20 feet of hard surfacing with 2-foot shoulders where feasible, subject to County review and approval.[1]<br>☐ Horizontal curves along Garden Bar Road would be improved in accordance with traffic safety report recommendations, subject to County review of improvement plans. |

[1] In areas along Garden Bar Road, and the access road from Garden Bar Road to the Park entrance; where the County determines that status trees, significant rock outcroppings, and other valuable natural features within the proposed widening corridor should be preserved or where adequate road right-of-way does not currently exist and is not obtainable through market value based willing seller negotiations, alternatives such as turnouts, striping, and/or signage may be considered and approved in lieu of full width widening for those discreet areas.

Phase 2 of the current CUP includes the allowance for the construction of a 50-space paved parking lot (including 5 ADA spaces) and gravel overflow area for daily use, allows reservation-based events of up to 200 attendees, and permits use of the ranch house area for overnight stays. Phase 3 of the current CUP allows the addition of up to 20 horse trailer parking spaces. Prior to implementation of each phase of the Garden Bar entrance, associated improvements would need to be constructed. (See Table 3-2)

This SEIR proposes three additional phasing steps between the original Phase 1 and Phase 2 to further define usage levels at Garden Bar and corresponding improvements that would be required. It also accounts for changes that are now possible with the addition of the Garden Bar 40 parcel which was purchased by the County in 2016, as well as implementation of the reservation system. Improvements, both on and off site, would be constructed in sequence through a series of gradual steps, and as funding is acquired. Due to the remote nature of the Garden Bar entrance, and the constraints of the roadway, the Garden Bar side is proposed to operate on a reservation-based system every day, instead of only on weekends, holidays and other heavy usage days. The County is planning to construct a new gated parking lot off Garden Bar Road on the Garden Bar 40 parcel. A gated entry road would be constructed off Garden Bar Road, north of the existing access road. The gate at the road would be closed nightly to prevent vehicles from driving in after hours. A secondary gate would be provided at the parking area for emergency vehicle access and access to the additional ADA parking spaces located further within HFRP. (See Exhibit 3-11). The entrance gate would either have an attendant or an automated gate which would open by scanning a barcode or manually entering a code. If cars begin parking outside the gate of the

Garden Bar 40 entrance to gain access without a reservation, a no-parking zone along Garden Bar Road may be warranted in the surrounding area.

Phase 1A for the proposed Garden Bar entry would allow for a parking area with 25 automobile parking spaces, and a separate ADA parking area with five parking spaces near the Salmon Run Bridge (Bridge #1) in the existing HFRP. Additionally, an entry area with turnaround and gate would be constructed, along with a ranger booth. A 12,000-gallon water tank with hydrant would be provided. Portable toilets would be utilized until Phase 1C, when permanent flush or vault toilets would be installed. In Phase 1A, the parking spaces would only be allowed to be used on weekends, holidays and other high use days (as noted on the County's HFRP website) would require a parking reservation at all times and would only be allowed to turn over once a day. A maximum number of 30 permits per day could be issued. A group event (i.e., exclusive use of the site by one organized group) using no more than the 30 parking permits would also be allowed, pursuant to the same stipulation that the parking stall use could only turn over once a day. An event and regular parking combined would be limited to a total combined use of 30 parking spaces per day. For the level of use proposed in Phase 1A, tree trimming as well as signing and markings along pertinent sections of Garden Bar Road where sight distance is limited and pavement width is narrow would be required.

Phase 1B would not increase the number of parking spaces, but would allow their use on any day, with turnover as anticipated for the overall HFRP project on weekends and holidays (i.e., approximately 2.6 trips per permit). Parking reservations would be required 7 days/week, 365 days/year. In addition to the measures listed above for Phase 1A, this phase would require pullouts, as feasible, along Garden Bar Road. At a minimum, the pull-out width should increase the overall roadway width to 18 feet. Where the County has or can obtain available right-of-way, pullouts would be provided on 300–400 foot spacing in physically constrained areas, and eight to ten pullouts total would be anticipated along the section of Garden Bar Road leading east towards the Garden Bar 40 entrance.

Phase 1C would allow usage of the 30 parking spaces plus the ability to concurrently accommodate a 200-person special event. All special events in this category would be required to apply for and be granted a Special Event Permit Application (SEPA) through Placer County Parks. These permits analyze traffic control measures, noise, water, garbage and restroom needs and are routed through various County departments, as well as the Sheriff's Office, Fire Department and California Highway Patrol as applicable. Special Events would be limited to 6 (six) days per year. Permanent restrooms and septic system plus a public well would be constructed with this phase. If sufficient water for a public well is not available, vault toilets may be constructed in lieu of flush toilets.

Exhibit 3-11 depicts the preliminary location of the parking area and Exhibit 3-12 provides a conceptual layout of the parking area with parking stalls for 30 automobiles. This area would also have many of the same features described above for Mears Place, including an entrance driveway and gate, ADA features and fencing. Visitors parking at this lot would access the park via an existing easement.

### HARVEGO PRESERVE – CURTOLA RANCH ROAD

The County's trail expansion plan includes a new parking and trailhead access within the Harvego Preserve. The entry gate for this northern portion of the trails expansion area would be accessed via

**Exhibit 3-11. Proposed Location of Parking and Access Improvements at Garden Bar Road**

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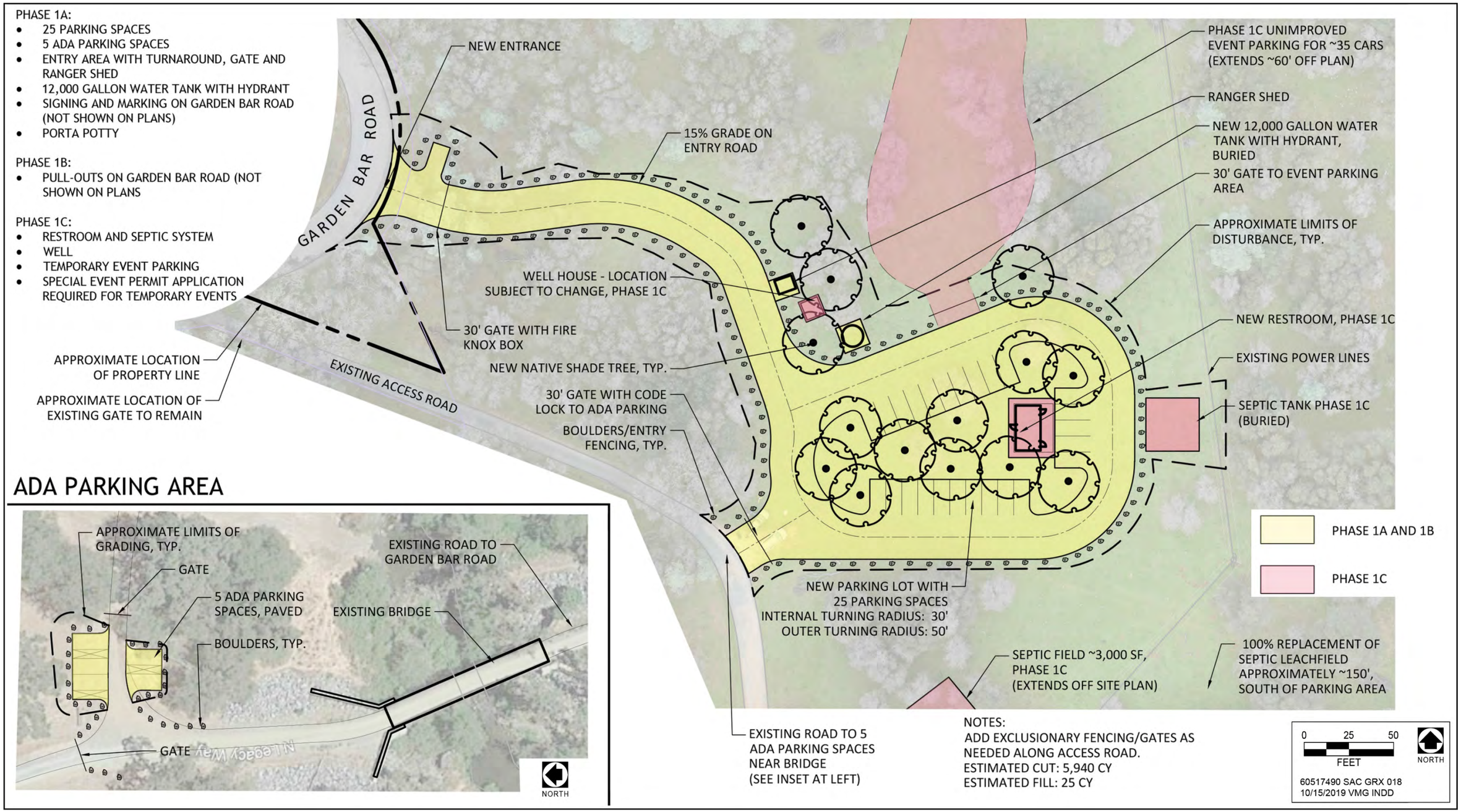


**Exhibit 3-12. Garden Bar Conceptual Parking**

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Source: Foothill Associates 2019

**Exhibit 3-13. Proposed Location of Parking Improvements at Harvego Preserve/Curtola Ranch Road**

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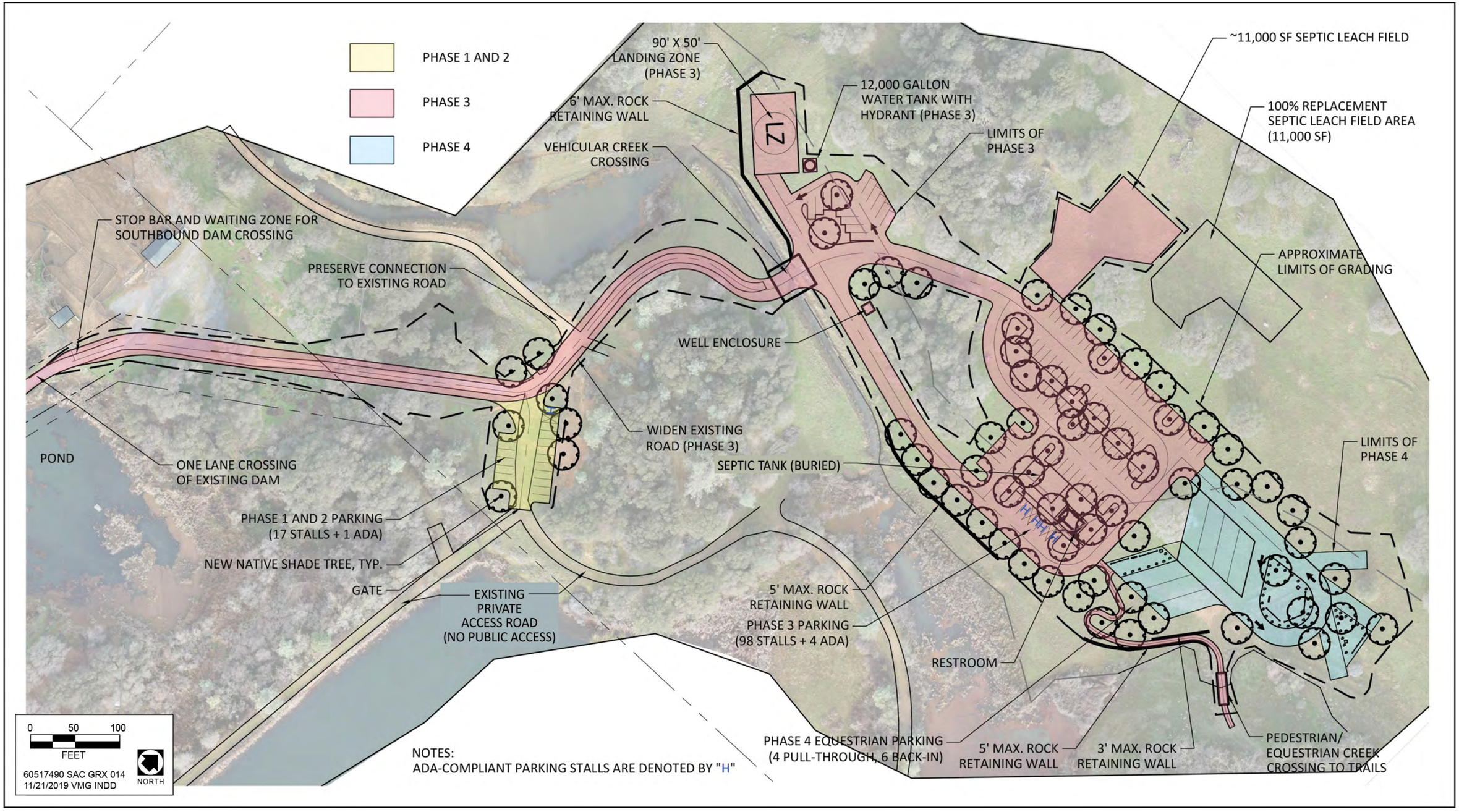


Source: Helix 2019

**Exhibit 3-14. Conceptual Parking Layout – Harvego Preserve/Curtola Ranch Road**

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Auburn Valley Road and Curtola Ranch Road. County access via Auburn Valley Road is provided by an offer of public dedication that the County has not accepted to date. Exhibit 3-13 shows the proposed location of the parking area within the preserve and Exhibit 3-14 provides a preliminary schematic design for the layout of the parking areas. The County is planning a phased approach that would need to be consistent with the easement along Curtola Ranch Road (Appendix B). This easement (Doc-2011-0045644) currently stipulates that the PLT and County may allow general public use of the access easement on Curtola Ranch Road only after an all-weather roadway surface of not less than 20 feet in width is constructed. Phasing would proceed consistent with easement terms in effect at the time of development.

Proposed improvements are summarized in Table 3-3. The first phase improvements would include the formalization of the currently-used informal parking area into 17 parking spaces plus 1 ADA compliant parking space. Phase 1 would allow for docent-led tours only, consistent with the current type of use, and as such, would not require any road improvements. A maximum of one tour per day would be allowed. Portable toilets would be utilized until Phase 3. (See Table 3-3).

**Table 3-3. Summary of Harvego Preserve Access Phasing**

| Permitted Access | Corresponding Improvements |
|---|---|
| **Phase 1 –** | |
| ☐ 18 automobile parking spaces (17 standard spaces + 1 ADA).<br>☐ Docent-led tours only, 7 days/week, up to one tour/day. | ☐ Gravel parking with exception of ADA space, which shall be paved<br>☐ Portable toilet<br>☐ No other improvements necessary |
| **Phase 2 –** | |
| ☐ No additional parking spaces constructed.<br>☐ 2-way travel allowed on Curtola Ranch Road.<br>☐ Open Public use allowed (non-Docent access), 7 days/week.<br>☐ Reservation-based only, 7 days/week. | ☐ Asphaltic sealcoat, or other road surface treatment that can address dust and noise on Curtola Ranch Road and parking area<br>☐ Pull-outs to facilitate vehicle passage along Curtola Ranch Road<br>☐ Entry Gate and/or Ranger booth and associated improvements<br>☐ Exclusionary fencing/bollards and gates along Curtola Ranch Road as needed<br>☐ Provide Placer County Fire Department and CAL FIRE padlocks on all access gates<br>☐ Provide drivable 12’ fire access road reaching into park as far as reasonably possible<br>☐ The new vehicle parking areas shall provide designated parking stalls and maintain clear fire access lanes of 20’, meet fire equipment turning radius, and be able to support 75,000 pounds load rating<br>☐ Vertical clearances along trails and fire access lanes shall be pruned to a minimum of 15’-0”.<br>☐ Trails shall provide directional signage to guide HFRP users and emergency personnel to points of interest and escape routes.<br>☐ Placer County Fire Department/CAL FIRE shall be given room for an information kiosk for use during peak days for distribution of safety information. |
| **Phase 3 –** | |
| ☐ Construct additional 102 automobile parking spaces (98 standard spaces + 4 ADA) on other side of irrigation waterway.<br>☐ Curtola Ranch Road with 2-way travel. | ☐ Widening of Curtola to 20’ (with exception of dam area).<br>☐ Asphaltic seal coat or similar treatment of parking expansion area<br>☐ Vehicular creek crossing and connection to trail system<br>☐ Restroom, well and septic system / vault<br>☐ Exclusionary/safety fencing/bollards around parking area |

**Table 3-3. Summary of Harvego Preserve Access Phasing**

| Permitted Access | Corresponding Improvements |
|---|---|
| ☐ Open Public use allowed, 7 days/week.<br>☐ Reservation-based only on weekends, holidays and other peak use days. No reservation required during weekdays. | ☐ Provide helicopter landing zone near parking area, in consultation with Placer County Fire Department staff<br>☐ A 12,000 gallon water tank and hydrant shall be maintained near the parking area |
| **Phase 4 –** | |
| ☐ Addition of 10 equestrian spaces.<br>☐ Other characteristics from Phase 3 unchanged. | ☐ No additional road improvements<br>☐ Gravel parking lot expansion for equestrian use.<br>☐ Hitching posts, watering troughs, and mounting blocks |

Source: Placer County 2019

Phase 2 would allow for the 18 spaces to be reserved daily, with a turnover rate of approximately 2.6 trips/permit. For this level of use, pullouts would be required along Curtola Ranch Road, as feasible. The pullouts would be installed at key locations where physical constraints make it possible to widen the road. At a minimum, the pull-out width should increase the total roadway width to 18 feet and should be provided on 300–600 foot spacing. Additionally, an entry gate and ranger kiosk would be constructed, and Curtola Ranch Road and the parking area would be either all-weather surfaced or paved to reduce dust and noise. Exclusionary fencing and or bollards, as well as gates at private entries along Curtola Ranch Road would be provided as needed. Tree canopy along the road would be pruned up to allow 15 feet of clearance, per fire regulations. Changes to existing easement terms would need to be made prior to allowance of the proposed Phase 2 uses.

Phase 3 would add an additional 98 automobile plus 4 ADA parking spaces. For this to occur, Curtola Ranch Road would need to be widened to 20 feet (except for over an existing dam, where staging locations at each end of the one-lane section would be available to allow waiting cars to yield to oncoming cars). This phase would also include construction of a landing zone for emergency response, a 12,000-gallon water tank with hydrant, well, restroom and septic system, stream crossings and exclusionary/safety fencing/bollards around the parking area. As with the Garden Bar site, the type of restroom (flush or vault) would be dependent upon the availability of well water.

Phase 4 would include expansion of the parking lot to accommodate up to 10 equestrian parking spaces as well as equestrian related amenities such as hitching posts, watering troughs and mounting blocks. No additional improvements to the roadway beyond those implemented in Phase 3 would be required.

### TWILIGHT RIDE

The County has entered into a Purchase and Sale Agreement for the 50-acre privately owned Twilight Ride property located at 5345 Bell Road, adjacent to the PLT-owned Taylor Ranch. This property would provide parking accessible directly off of Bell Road. Exhibit 3-15 shows the proposed entrance off Bell Road, the access driveway connecting to the parking area, and the parking area in relationship to the rest of the site. Exhibit 3-16 provides a preliminary design depicting automobile parking and the equestrian staging area. At full build out of all phases, the parcel would provide 140 parking spaces, with 102 spaces dedicated to automobiles and 38 spaces for equestrian trailers.

Source: Helix 2019

**Exhibit 3-15. Twilight Ride Conceptual Site Plan**

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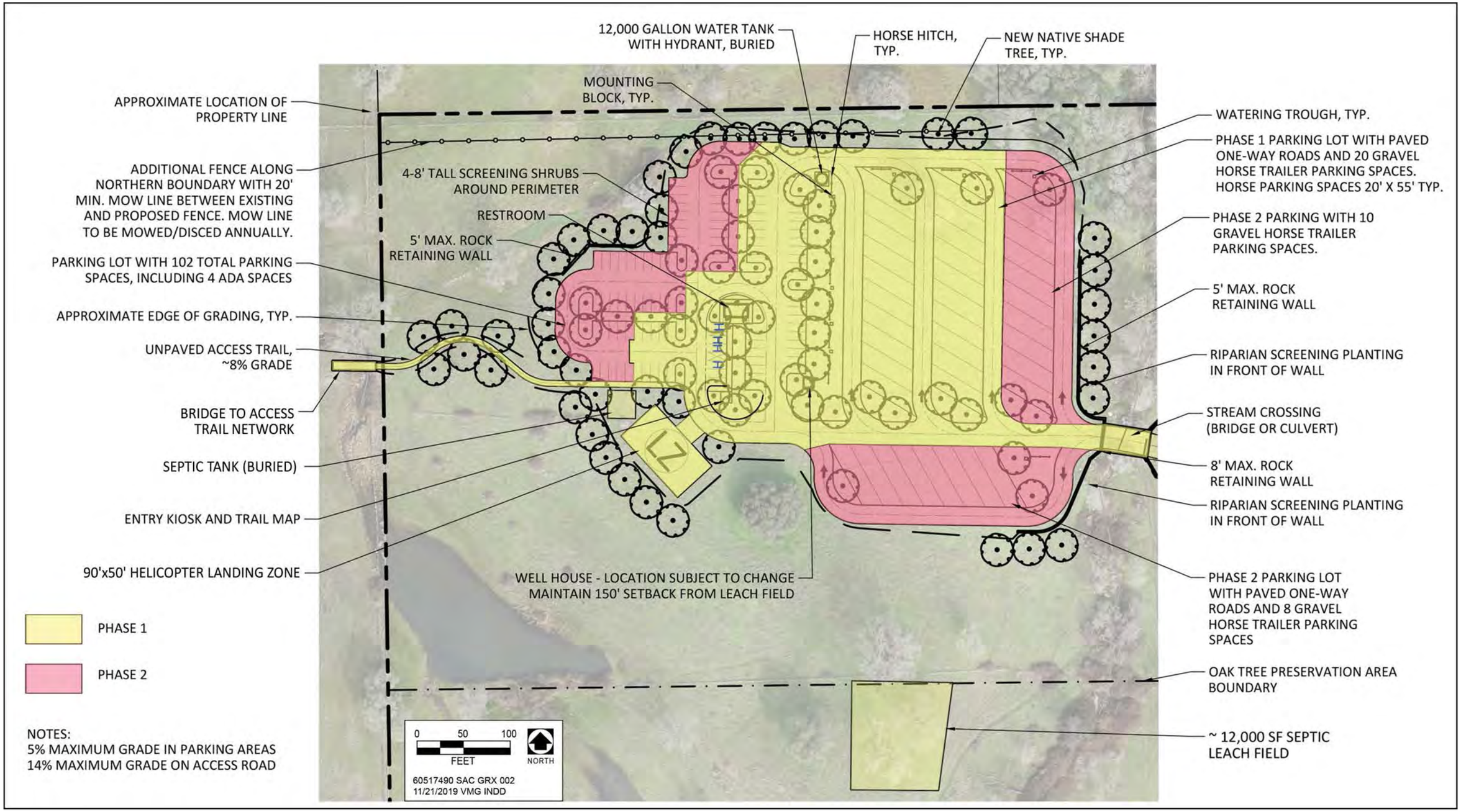


Source: Helix 2019

**Exhibit 3-16. Twilight Ride Conceptual Parking Layout**

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The Twilight Ride property consists of a 10-acre parcel adjacent to Bell Road, and a connecting 40-acre parcel which abuts Taylor Ranch. Existing facilities on the property include a single-family residence with a separate garage/housing unit and other outbuildings on the 10-acre parcel, and an older storage/barn structure on the 40-acre parcel.

Parking on Twilight Ride would be proposed in two phases. Phase 1 would consist of 50 automobile parking stalls, 4 ADA parking stalls and 20 equestrian parking stalls. Also included with Phase 1 would be a helicopter landing zone, 12,000-gallon water tank with hydrant, well, restroom (either flush or vault) and septic system. If a suitable well site is not available, vault toilets would be constructed in lieu of flush toilets with a connected septic system. Improvements for this level of use would include entry road improvements (using either the stream crossing or existing entry drive), a fire truck compliant turnaround, a ranger kiosk, entrance gate, access road, a second bridge or culvert, connecting trail and stream crossings, and construction of Phase 1 of the parking lot. Both the access road and parking area would be seal coated or paved to reduce noise and dust.

**Table 3-4. Summary of Twilight Ride Access Phasing**

| Permitted Access | Corresponding Improvements |
|---|---|
| **Phase 1 –** | |
| ☐ 54 automobile parking spaces (50 standard spaces + 4 ADA), and 20 equestrian spaces.<br>☐ Open Public use allowed, 7 days/week.<br>☐ Reservation-based only on weekends, holidays and other peak use days. No reservation required during weekdays. | ☐ Entry Gate and/or Ranger booth<br>☐ Entry road improvements, including stream crossings and trail connection<br>☐ A 12,000-gallon water storage tank and hydrant<br>☐ Permanent restroom (flush or vault)<br>☐ Septic system (if flush toilets)<br>☐ Provide helicopter landing zone near parking area in consultation with Placer County Fire Department/CAL FIRE staff<br>☐ Provide CAL FIRE and Knox padlocks on all access gates<br>☐ Provide drivable 12’ fire access road reaching into trails expansion area as far as reasonably possible<br>☐ The new vehicle parking areas shall provide designated parking stalls and maintain clear fire access lanes of 20’, meet fire equipment turning radius, and be able to support 75,000 pounds load rating<br>☐ Vertical clearances along trails and fire access lanes shall be pruned to a minimum of 15’-0”.<br>☐ Trails shall provide directional signage to guide park users and emergency personnel to points of interest and escape routes<br>☐ Placer County Fire Department/CAL FIRE shall be given room for an information kiosk for use during peak days for distribution of safety information.<br>☐ Mitigation Measure - A light rescue vehicle shall be available to Placer County Fire Department/CAL FIRE to serve HFRP and the trail expansion areas, as well as the greater North Auburn/Ophir areas served by the Placer County Fire Department. |
| **Phase 2 –** | |
| ☐ Addition of 48 automobile parking spaces and 18 equestrian parking spaces.<br>☐ Open Public use allowed, 7 days/week.<br>☐ Reservation-based only on weekends, holidays and other peak use days. No reservation required during weekdays. | ☐ Mitigation Measure - Construct dedicated left turn lane on Bell Road meeting design standards contained in the Caltrans Highway Design Manual (HDM). |

Source: Placer County 2019

Phase 2 would add another 48 parking spaces and 18 equestrian spaces. The proposed phasing table and site plans depict the vision for public access via the Twilight Ride property.

## 3.5 TRAIL AND FACILITY CONSTRUCTION

Construction activities associated with the proposed improvements range from hand held tools used to trim bushes and manipulate soil to small dozers for trail construction, to heavy machinery required to grade land for creation of roadway beds, parking lots, and cranes used to place bridge components. Table 3-5 summarizes the various pieces of construction equipment anticipated for use in the creation of the proposed facilities. Conceptual site plans of the related construction activity follow the table. The following bulleted items describe the construction methods proposed for the trail and facility improvements.

The multi-use trails would be constructed using a combination of techniques, including by hand (see Exhibit 3-17) and by using a combination of small construction equipment. Refer to Table 3-5 for a list of equipment used during construction of the proposed trails and associated project components.

**Table 3-5. List of Typical Equipment to be used for Hidden Falls Regional Park Trails Expansion**

| Proposed Facilities | Equipment by Type | |
|---|---|---|
| Trails | SWECO Dozer<br>Chainsaw<br>Pick<br>ATV/utility vehicle | Mini-excavator<br>Pick Up Truck<br>Polesaw<br>Shovel<br>Chipper |
| Parking and Amenities | Large Dozer/Excavator<br>Compactor<br>Heavy Truck | Paver<br>Pick Up Truck<br>Water Truck |
| Access Roads (internal) | Large Dozer/Excavator<br>Compactor<br>Paver | Pick Up Truck<br>Heavy Truck<br>Water Truck |
| Overlooks | | Mini-excavator<br>Pick Up Truck |
| Bridge and Stream Crossings | Bobcat<br>Crane<br>Heavy Truck<br>Helicopter | Excavator<br>Pick Up Truck<br>Water Truck |
| Off Site Road Improvements | Large Dozer/Excavator Compactor<br>Heavy Truck | Pick Up Truck<br>Water Truck<br>Paver |

Source: Placer Land Trust

**Exhibit 3-17. Trail Construction Example**

- Abutments would be constructed on Raccoon Creek to install both bridges, likely with the use of a crane or helicopter (see Exhibit 3-18). Banks would be graded to a maximum 2:1 slope aspect ratio and stream bank protection to limit erosion would be installed before construction begins. The bridge structures may be prefabricated and flown in via helicopter.

Source: Placer County

**Exhibit 3-18. Bridge Placement**

- Trail width would vary depending on the type of trail. Multi-use trails would be graded to 5 feet wide (see Exhibit 3-17). Trail surfaces would be excavated using small, earth-moving equipment such as Bobcat mini excavators and SWECO dozers. Trails (and bridges) designed to accommodate emergency vehicles would be 8–12 feet wide.
- Overlooks would be constructed in the same manner as the existing overlooks within HFRP and would utilize natural colors to blend in with the environment.
- Restrooms and other buildings would be rustic in appearance and consistent with Placer County design guidelines.
- Stream crossings would be constructed at various locations by placing culverts and stabilizing the banks with riprap (see Exhibit 3-19). Rocks would be placed in ephemeral drainages to provide a level surface.

Source: Robert Sydnor

**Exhibit 3-19. Typical Stream Crossing using Culvert**

- Parking areas would require heavy equipment (e.g., bulldozers, front-end loaders) as required for clearing and grubbing, grading, and excavation. Drainage systems would be installed to collect and treat storm water on site.
- Helicopter Landing Zones would be provided at each of the parking areas to assist with emergency responses.
- Utilities – Supporting utilities would be constructed as the trail network expands, including wells for restroom facilities and fire protection, irrigation systems, sanitary sewer systems, trash containers, and emergency phone service.
- Hiking, biking and equestrian amenities would include interpretive and wayfinding signage, kiosks with informational signage, hitching posts and watering troughs, benches, picnic tables, fencing, drinking fountains and restrooms. Signage with trail etiquette would be posted at the trailheads.

### Environmental Best Management Practices

All aspects of construction would use environmental and construction best management practices to minimize environmental effects. The trail alignment would be staked in the field prior to construction so the impacts to biological resources can be avoided when feasible. Final vegetation clearance would consist of cutting, removal and disposal of vegetation within the clearing limits of the approved trail alignment to prepare the trail bed for excavation. Removed vegetation smaller than 3” in diameter would be chipped in place and used as mulch for erosion control or lopped and scattered in areas inaccessible to a chipper. Standard trail design would undulate with the topography to shed water off the trail system before it can create ruts. Whenever possible, vegetation clearing would be scheduled outside the breeding season of migratory birds, including raptors, to avoid adverse effects on nesting birds. Specimen trees greater than 5” at breast height diameter that are located within 5 feet of the clearing limits and proposed to remain would be tagged with distinctive flagging to denote a protected tree. Cut and fill slopes would be protected by stormwater best management practices (BMPs) to be outlined in a stormwater pollution prevention plan.

### Construction Truck Trips

Construction of the trail system and associated recreational facilities is expected to generate approximately 400 delivery truck trips. However, construction-related traffic would be spread out over several years as described below in “Construction Schedule.” For Phase 1 of construction, truck traffic is expected to be approximately 10–20 percent of the total needed or 40–80 truck trips. Construction activities would generally take place Monday through Saturday, although construction activities that are inaudible from areas outside the trail expansion areas may be permitted on Sundays. Consistent with existing County Ordinances, from Monday through Friday, work would be allowed between 6 a.m. and 8 p.m. during daylight savings time and between 7 a.m. and 8 p.m. during standard time. Construction activities would be allowed between 8 a.m. and 6 p.m. on Saturdays.

### Construction Schedule

The trails and other features described above would be constructed over multiple years as funding allows. Trail construction would coincide with favorable weather conditions. Vegetation clearing would be scheduled outside of the breeding season for raptors and other migratory birds in the winter preceding construction, whenever possible. The bridges would be built during dry periods of the year when stream flows are lower.

## 3.6 OPERATION AND MAINTENANCE

The proposed trail system and recreational facilities would be designed to minimize maintenance requirements; however, some regular maintenance of the trails and ancillary facilities would be required. Land management activities would be conducted by a combination of the PLT and the County. This would include forest management/fuel load reduction, including clearing defensible spaces, creating fire breaks, and maintaining access roads. Agricultural uses would continue to operate and include grazing, livestock watering and feeding, and ranch road maintenance. As with the existing HFRP, maintenance activities of the trails, access and parking areas would be conducted consistent with the Vegetation, Fuels, and Range Management Plan for HFRP (2007). This plan identifies methods for modifying vegetation to reduce existing fuel load and lower the chance a fire would start within trails, access and parking areas and move outside these areas. Initial removal of excess fuels would be accomplished by some combination of mechanical equipment and hand tools. Use of herbicides and grazing by livestock would be used for long-term maintenance. Fuel breaks and defensible spaces would be incorporated into the trail expansion areas through thinning vegetation around parking lots and near certain trail segments and property lines. The PLT has constructed both a 90-acre and 30-acre fuel break on the Harvego Preserve. Vegetation management within the PLT-owned portions of the properties would adhere to the management plans for each of the respective properties. PLT has stated in public meetings and has language on their website that notes the properties they own will continue to use cattle grazing as a fuel management tool.

Trail maintenance would include selectively clearing vegetation; regrading trail tread; removing loose rocks, roots, and dead trees; and replacing trail surface material, if necessary. Localized spraying of herbicide may be required along the trail corridor to prevent vegetation from overgrowing the tread. Herbicides would be applied by County staff members or County contractors certified in proper herbicide/pesticide application. Trail operations and maintenance were described in the 2010 Certified EIR. All proposed operation and maintenance activities are expected to be similar to those currently undertaken in the existing HFRP and would be conducted by County staff, County contractors, volunteers, and user groups.

The County has contracted with California Land Management, Inc. (CLM) to provide ranger services at the existing HFRP. The County would expand this contract to provide rangers within the expansion areas to engage and educate the public, enforce permit restrictions, provide traffic control, and serve as the eyes and ears for law enforcement and emergency medical services.

### 3.6.1 TRAFFIC MANAGEMENT

#### RESERVATION SYSTEM

To minimize traffic impacts near the established parking lot on Mears Place, the County has developed strategies to electronically alert visitors to parking availability before they arrive at the site. In addition to the existing web-cam that shows updated views of the Mears parking area every few minutes, the County regularly provides website updates and social media messages to alert visitors before they get in their cars to come visit the park. The County most recently established a reservation system at the existing Mears Place entrance on September 1, 2017 for weekends, holidays and other high-use days. The reservations system was established so that people can obtain a parking reservation online prior to arriving at the park. In this manner, they arrive with a guaranteed parking space, and extra traffic on the local roads from people being turned away at the gate has been greatly

reduced. The operational techniques applied at the Mears entrance would be employed at the Garden Bar 40, Harvego, and Twilight Ride entrances to the park in order to minimize trips associated with vehicle turn-backs.

At this time, reservations are required only on high volume days (weekends, holidays, as well as other days specified on the website). Generally, no reservation or charges apply on Mondays through Fridays (unless the day falls on a holiday or high volume day). The existing reservation system will be adaptively managed for use patterns in the future that may result in the issuance of weekday permits. The current cost for parking is variable based on time of arrival as shown below and these charges are subject to adjustment by the Placer County Board of Supervisors.

- $8.00 per vehicle – full day (sunrise to sunset)
- $4.00 per vehicle – partial day (morning or afternoon)

The horse trailer area is currently reserved in the same way as the automobile area (same prices during the same peak days), but it has its own separate quota of reservations to make sure the entire gravel horse trailer area is kept just for equestrian trailered vehicles.

### USAGE AND VISITOR DEMOGRAPHIC

Placer County currently contracts with California Land Management, Inc. (CLM) to provide ranger services at HFRP. Data obtained from the CLM Ranger log for a five month window during the peak season at the Mears lot indicated that a maximum of 148 vehicles used the facility on a single day during March through July of 2018 (see Table 3-6). This total illustrates the turnover of parking spaces from the morning session, through full-day reservations and into the afternoon permit window.

**Table 3-6. Examples of Peak Period Vehicle Registration at Mears Entrance**

| Date | Highest Daily Vehicle Reservation Check In |
|---|---|
| March 31, 2018 | 127 |
| April 14, 2018 | 140 |
| May 13, 2018 | 147 |
| June 17, 2018 | 148 |
| July 1, 2018 | 91 |

Source: Placer County Parks Division, 2018

Records review conducted by the County Parks Division found that 12,018 visitors used the HFRP reservation system over an 18 month period from February 2017 through July 2018. Of the 12,018 visitors that came during the weekends, holidays and other peak use days, approximately 37 percent (4,504 visitors) were local residents from Placer County. See Table 3-7 for a breakdown of visitors according to residency during the weekends. Data collected from informal surveys of visitors on weekdays showed that the majority of people are local residents.

**Table 3-7. Weekend/Holiday/Peak Day Use - HFRP Park Visitor Place of Residence**

| Place of Residence | Number and Percent |
|---|---|
| Local (Placer County) | 4,504 (37%) |
| Adjacent Counties | 6,101 (51%) |
| Out of Area | 1,404 (12%) |

Source: Placer County Parks Division, 2018

### 3.6.2 HFRP TRAIL EXPANSION AREA USES

The 2009 HFRP EIR described a range of potential uses of HFRP, including overnight group camping near the existing ranch home on the west side of the park, educational uses, and conservation activities. Several of the uses that could occur in the trail expansion area and associated facilities include:

- Fish and wildlife habitat restoration – For Raccoon Creek and along the trails, the County could add fish passage amenities, install nest boxes, implement erosion control features, and plant vegetation to restore woodland, grassland, or riparian habitat.
- Interpretive displays – The new parking areas and selected trail locations would have kiosks and interpretive signage providing information on conservation, wildlife, water resources, habitat, and area history.
- Signs and fencing – New parking areas and access points would have offsite signage to direct users to the trailheads. Within the expansion areas wire/cable, wooden or rock fences or walls would protect sensitive resources and maintenance facilities. Signage with trail etiquette would be posted at trailheads. Directional signage would be placed along primary trail routes.
- Fire suppression – All trailheads have been designed with fire suppression facilities, including water wells, 12,000-gallon water storage tanks with hydrants, and fire and emergency vehicle access. Existing shaded fuel breaks will continue to be maintained. Additionally, animal grazing will continue to be a part of the fuels management plan for both the existing HFRP and proposed trail expansion areas.

The expansion areas would not be suitable for scouting events, camping trips, or large events that would require access to cooking facilities. Although the current Conditional Use Permit for the HFRP allows these types of uses near the ranch house on the western side of HFRP, these types of uses are not proposed for the trail expansion areas.

Motorized vehicles are to be prohibited on the trails within the expansion areas, with the exception of the use by the Landowner, County, County-contracted Ranger Services, PLT, and/or the Trail Easement Holder, as needed for trail maintenance purposes, or access by emergency personnel for public health and safety and use by ADA personal vehicles. The County recognizes the emerging technology of electric bikes (“e-bikes) and would expect their usage to be regulated by County Code as adopted by the Board of Supervisors.

As described in the 2010 Certified EIR, the expanded trail areas would not allow amplified sound, sports fields, or lighting other than safety and security lighting in the parking areas and around buildings, as needed.

## 3.7 REQUIRED PERMITS AND APPROVALS

This section lists and describes the approvals and permits that would be required prior to construction of the Proposed Project. Each section of the SEIR provides information on the relevant regulatory framework, with reference to the 2010 Certified EIR as appropriate.

### 3.7.1 APPROVALS REQUIRED BY PLACER COUNTY

The Proposed Project would require the following County actions:

- Certification of the Final SEIR for the HFRP Trails Network Expansion Project and adoption of the Findings of Fact and Statement of Overriding Considerations as well as the Mitigation Monitoring Reporting Program; and,
- Conditional Use Permit Modification. The County would require an amended CUP to cover the proposed changes at the existing HFRP and the proposed trails expansion area. The CUP modification would clarify intended use of the access off Garden Bar Road, new and expanded parking areas, and the added trails. The CUP modification application may require the County to submit supporting information regarding storm water, hazardous materials, water supply, public safety, and wastewater treatment and disposal; and,
- The access-roadway improvements and utilities required to accommodate the expanded trail network may also require grading permits/Improvement Plans from the County Engineering and Surveying Division (ESD) in addition to wastewater and public well permits from the County Environmental Health Division.

The CUP modification is the County's discretionary action requiring CEQA compliance, which is addressed through this SEIR. Preparation of the SEIR included consultation with Native American tribes regarding potential impacts on tribal cultural resources.

### 3.7.2 APPROVALS ISSUED BY OTHER AGENCIES

The proposed project would require the following actions by entities other than the County:

- Clean Water Act Section 404 permit for stream crossings at Raccoon Creek and other streams (United States Army Corps of Engineers);
- Endangered Species Act Section 7 Consultation (United States Fish and Wildlife Service);
- Clean Water Act Section 401 Water Quality Certification amendment (Regional Water Quality Control Board – Central Valley Region);
- Clean Water Act Section 402 National Pollutant Discharge Elimination System permit (Regional Water Quality Control Board – Central Valley Region);
- Streambed Alteration Agreement amendment for stream crossings (CDFW); and,
- Encroachment permit for any construction within the floodplain of Raccoon Creek (Central Valley Flood Protection Board).

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# 4.0 LAND USE AND AGRICULTURAL RESOURCES

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) land use and agricultural resources findings; describes the proposed trail network expansion project area (project area) environmental setting and pertinent regulations; evaluates the potential for project-related impacts associated with on-site and adjoining land uses and agricultural resources and existing plans and policies; and provides mitigation measures as necessary to reduce those impacts.

## 4.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 CERTIFIED EIR

As discussed in Section 1.2, this SEIR will consider the impacts of the HFRP Trails Expansion project and compare it against the analysis contained in the 2010 HFRP Certified EIR. The purpose is to determine whether the Trails Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, result in a new impact not previously identified, or require application of mitigation measures that were previously found infeasible, and were therefore not adopted for the prior project, are currently feasible and should be incorporated into project approvals.

### 4.1.1 FINDINGS OF FACT

The topics of Land Use and Agricultural Resources were considered by Placer County in the 2010 HFRP Certified EIR. The following is a summary of the EIR findings made by the Board that pertain to land use and agriculture.

The area now known as HFRP was described as undeveloped except for an existing ranch house and several smaller support structures and the surrounding vicinity consisted of scattered rural residences and agricultural grazing lands; therefore, the project was found not to divide an established community and a **no impact** finding was made.

HFRP was not found to conflict with a Williamson Act contract, because the park would continue to be used for livestock grazing. The properly regulated and managed outdoor recreation uses were found to be compatible with agricultural resources, so no adverse effects on agricultural or timber resource operations would occur. Further, it was determined that there was a **less than significant** impact when reviewing whether there would be a conversion of important farmland to a nonagricultural use.

In addition to continuation of agricultural uses, the proposed park activities were found to be consistent with the zoning of the area, so potential conflicts with existing or future land uses adjacent to the proposed park were **determined to be less than significant**.

Finally, the Board found that the Didion Ranch portion of the proposed park was already open for public use. In addition, the park was designed to be consistent with the surrounding area to ensure compatibility with surrounding land uses and with planning documents policies, and regulations. Therefore potential impacts resulting from conflicts with land use or agricultural resource plans, policies, or regulations were determined to be **less than significant**.

## 4.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The setting of the Subsequent EIR describes the physical environmental conditions of the proposed HFRP Trails Expansion area. See Chapter 4.0 "Land Uses and Agricultural Resources" of the HFRP 2010 Certified EIR for information about the existing park.

### 4.2.1 EXISTING LAND USES, AGRICULTURE

The trails expansion project proposes to add parking and expand the park trail network to the northeast, west and east of the existing park, and south of the Bear River, with interconnections to existing trails within HFRP. The expansion area contains few roads and includes undeveloped lands within the Raccoon Creek and Bear River watersheds. Land proposed for inclusion in the trails network expansion includes the Harvego Preserve, Taylor Ranch, Kotomyan Preserve and Outman Preserve which are owned in fee by the Placer Land Trust (PLT), a trail easement within the Liberty Ranch; and portions of the former Haddad and Campbell properties that were acquired in fee by Placer County in 2013, as well as the Loudon easement (see Figure 3-4 in Chapter 3, "Project Description"), which was purchased at that same time. Lastly, the expansion area includes the Garden Bar 40 parcel that was purchased by the County in 2016, other connecting easements, as well as a 25-space expansion of the existing parking area on Mears.

Much of the expansion area provides for multiple uses such as protection of wildlife habitat, scenic open space, and promoting agriculture and recreation related use in the County. The Harvego Preserve is home to a working cattle ranch and the Taylor Ranch, Kotomyan Preserve, and Outman Preserve support cattle grazing. The Taylor Ranch and Kotomyan Preserve contain existing trails which can be experienced by the public through docent-led tours by the PLT. County-owned parcels and easement areas directly east of the HFRP connect the existing park with the Taylor Ranch parcel. Liberty Ranch is currently under Williamson Act contract and is used for cattle grazing. The PLT holds a conservation easement on the Liberty Ranch and the County has a dedicated trail easement within the property that connects to the other PLT-owned parcels. Historically cattle, sheep, and goats grazed the northern portion of the property. PLT has expressed its intention to continue cattle grazing as part of its long term management plans.

The Twilight Ride property is a 50-acre, privately owned parcel located in between and adjacent to Taylor Ranch and Bell Road. The County entered into a Purchase and Sale Agreement on October 1, 2018 with the property owner. Existing facilities on the property include a single-family residence, separate garage with living quarters, and other outbuildings. The current owner of the Twilight Ride property allows grazing on a seasonal basis. If acquired by the County, grazing would be expected to continue consistent with the annual grazing program that is part of the standard vegetation management operation for the existing HFRP and other County owned open space parcels in Western Placer County.

Placer Land Trust has prepared management plans for each of the properties in which they have operational authority. Activities on the proposed expansion area are restricted to those that are consistent with management plans objectives to protect local watersheds, preserve oak woodlands, continue grazing practices and promote use of open space for recreational use. Each management plan lists the responsibilities and activities for the long-term management of the land and the habitat on the properties that are maintained by PLT. Prior to opening the expansion parcels to public use, the management plans would be reviewed and modified as applicable, in

consultation with PLT, Placer County Parks and Grounds Division, and the Office of the Placer County Agricultural Commissioner in order to address potential impacts of increased public presence on grazing operations. Attention would be given to the regulation of the public's use during times of calving. The plans provide guidelines for a management regime using the concept of adaptive management.

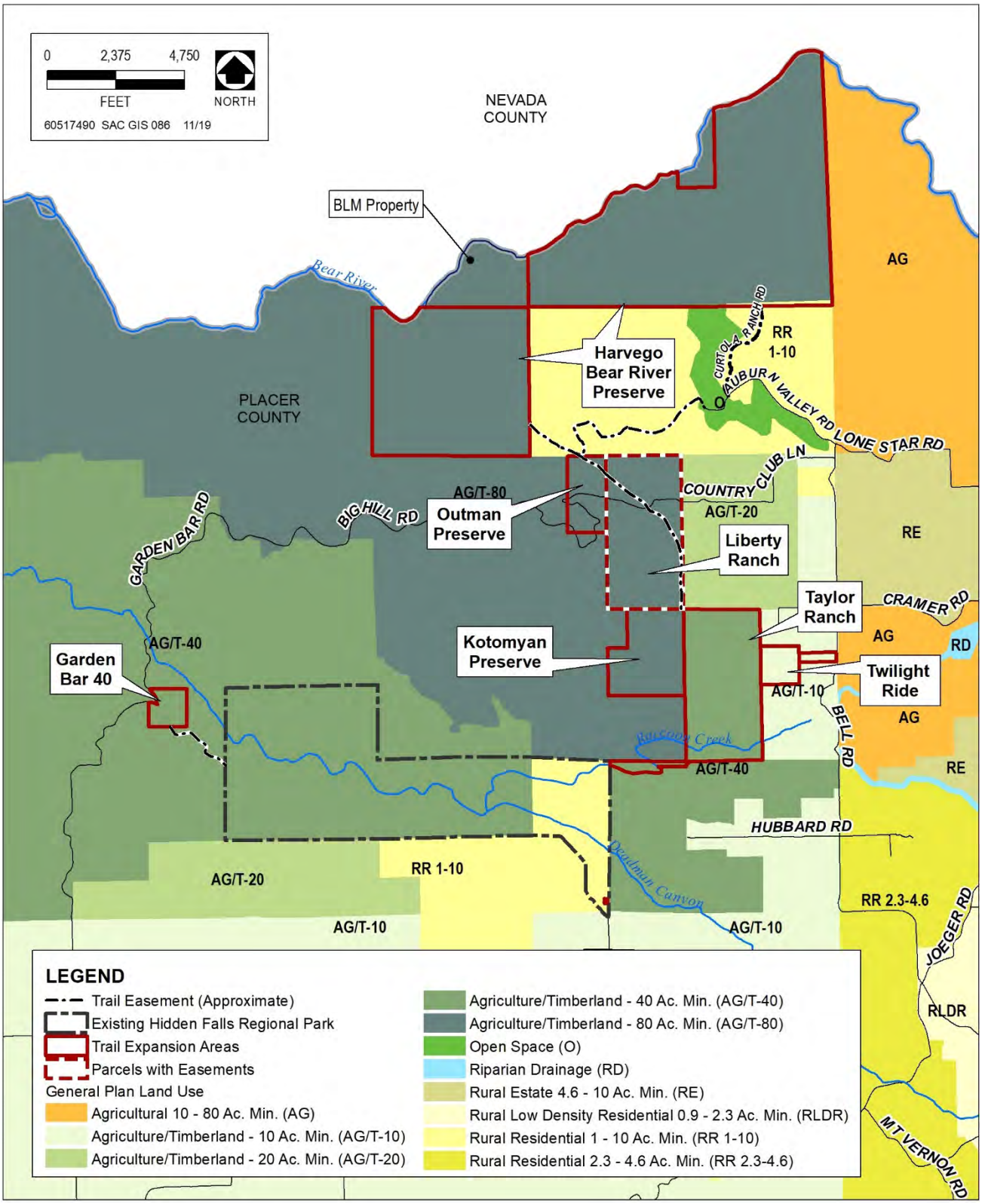
Article 12.24 of the Placer County Code, known as the Public Recreation Ordinance (PRO) regulates use within Public Recreation Areas (PRA's). Prior to opening of the expansion areas to the general public and subject to adoption by the Board of Supervisors, the expansion parcels to be opened to the general public will be added to the list of PRA's. The PRO regulates activities that may affect agricultural and habitat values and defines punishment for violations. The PRO addresses activities including limitation on motorized vehicles, littering, removal or damage of artifacts, confinement of the public to designated trails and roads, prohibition of camping outside of designated areas, dogs, restrictions on fires and smoking, restriction on amplified sound, and enforcement of the reservation system to control the number of visitors during popular times. As it deems necessary, the Board of Supervisors makes changes to the PRO to address unique management objectives of individual parcels within the PRA's.

### 4.2.2 PLACER COUNTY GENERAL PLAN

The Placer County General Plan land use designations for the trail expansion areas are Agriculture 10-acre, 40-acre, and 80-acre minimum lot area and Timberland 10-acre, 40-acre, and 80-acre minimum lot area (Placer County 2013). These designations are described further below (see Exhibit 4-1).

- **Agriculture (AG) (10-, 20-, 40-, 80- and 160-acre minimum)** This designation identifies land to produce food and fiber, including areas of prime agricultural soils, and other productive and potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses, or where potential conflicts can be mitigated. Typical land uses allowed include: crop production, orchards and vineyards, grazing, pasture and rangeland, hobby farms; other resource extraction activities; facilities that directly support agricultural operations, such as agricultural products processing; and necessary public utility and safety facilities. Allowable residential development in areas designated Agriculture includes one principal dwelling and one secondary dwelling per lot, caretaker/employee housing, and farm worker housing. Rural recreational uses are also allowed with issuance of a minor use permit.

- **Timberland (T) (10-, 20-, 40-, 80- and 160-acre minimum)** This designation is applied to mountainous areas of the county where the primary land uses relate to the growing and harvesting of timber and other forest products, together with limited, low-intensity public and commercial recreational uses. Typical land uses allowed include: all commercial timber production operations and facilities; agricultural operations where soil and slope conditions permit; mineral and other resource extraction operations; recreation uses such as incidental camping, private, institutional and commercial campgrounds (but not recreational vehicle parks); and necessary public utility and safety facilities. Allowable residential development in areas designated Timberland includes one principal dwelling and one secondary dwelling per lot and caretaker/employee housing.




Source: Placer County 2018

**Exhibit 4-1. General Plan Land Use Designations**

### 4.2.3 PLACER COUNTY ZONING ORDINANCE

The Placer County Zoning Ordinance establishes zoning districts which are used to address special needs or characteristics of the areas of the county to which they are applied, such as potential hazards and/or land use conflicts created by aircraft overflight, flooding, unique community character, or visual quality. The zoning district applicable to the project area is Farm, with minimum lot sizes ranging from 10 to 160 acre minimums. (See Exhibit 4-2) The purpose of the Farm (F) zone is to provide areas for commercial agricultural operations that can also accommodate necessary services to support agricultural uses, together with residential land uses at low population densities. There are a variety of allowable land uses in the Farm zone, including Parks and Rural Recreation, with approval of a Minor Use Permit.

### 4.2.4 SURROUNDING LAND USE

Land surrounding the project area is privately owned and used for agriculture, grazing, and rural residences. The U.S. Bureau of Land Management (BLM) owns the area between the two portions of the Harvego Preserve and south of the Bear River (see Figure 3-4 in Chapter 3).

Land use designations for the project area include Agriculture, 10-, 40-, and 80-acre minimum lot area; Timberland, 10-, 20-, 40-, and 80-acre minimum lot area; and Rural Residential 1-10-acre minimum lot area (Exhibit 4-1).

## 4.3 REGULATORY SETTING

### 4.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

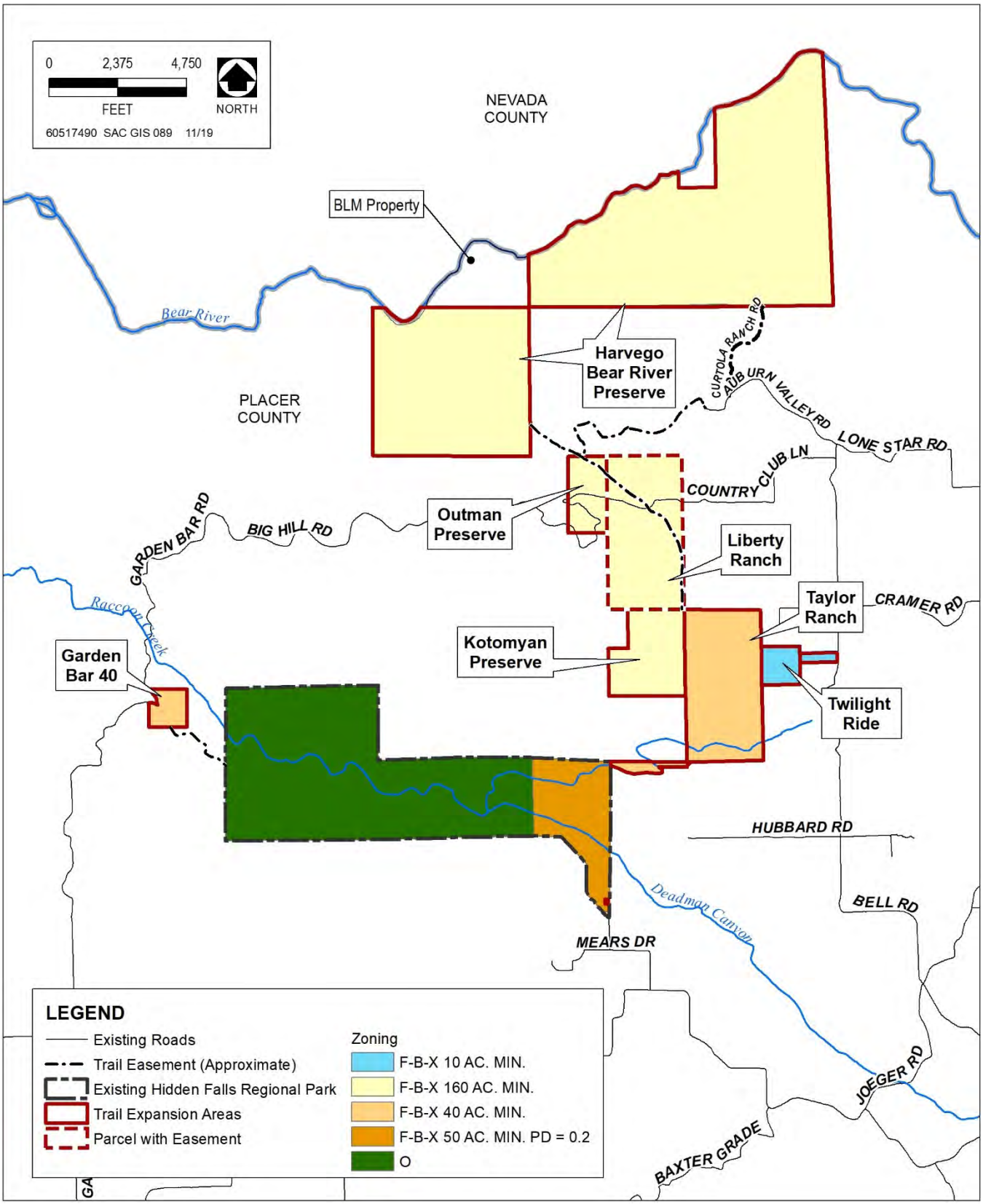
No federal plans, policies, regulations, or laws related to land use or agricultural resources.

### 4.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

#### CALIFORNIA IMPORTANT FARMLAND INVENTORY SYSTEM AND FARMLAND MAPPING AND MONITORING PROGRAM

The California Department of Conservation, Office of Land Conservation, maintains a statewide inventory of farmlands. These lands are mapped by the Division of Land Resource Protection as part of the Farmland Mapping and Monitoring Program (FMMP). The maps are updated every 2 years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. Farmlands are divided into the following five categories based on their suitability for agriculture:

- **Prime Farmland**—land that has the best combination of physical and chemical characteristics for crop production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed.
- **Farmland of Statewide Importance**—land other than Prime Farmland that has a good combination of physical and chemical characteristics for crop production.
- **Unique Farmland**—land that does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but that has been used for the production of specific crops with high economic value.




Source: Placer County 2018

**Exhibit 4-2. Zoning Designations in the Project Vicinity**

- **Farmland of Local Importance**—land that either is currently producing crops or has the capability of production, but that does not meet the criteria of the categories above.
- **Grazing Land**—land on which the vegetation is suited to the grazing of livestock.

These categories are sometimes referred to as Important Farmland. Other categories used in the FMMP mapping system are "urban and built-up lands", "lands committed to nonagricultural use", and "other lands" (land that does not meet the criteria of any of the other categories). Exhibit 4-3 shows the designated farmland within the project area. The proposed project area is designated as Farmland of Local Importance.

#### WILLIAMSON ACT CONTRACT LAND

The California Land Conservation Act of 1965, commonly known as the Williamson Act, enables local governments to enter into contracts with private landowners to promote the continued use of the relevant land in agricultural or related open-space use. In return, landowners receive lower property tax assessments that are based on farming and open-space uses instead of full market value.

The Williamson Act empowers local governments to establish "agricultural preserves" consisting of lands devoted to agricultural uses and other compatible uses. When such preserves are established, the locality may offer owners of included agricultural land the opportunity to enter into annually renewable contracts that restrict the land to agricultural use for at least 10 years (i.e., the contract continues to run for 10 years after the first date upon which the contract is not renewed). In return, the landowner is guaranteed a relatively stable tax rate, based on the value of the land for agricultural/open space use only and unaffected by its development potential.

Exhibit 4-4 shows the existing Williamson Act contracts in the proposed project vicinity. Taylor Ranch and the east Harvego parcel, as well as the Liberty Ranch are currently under Williamson Act contracts. Lands south of Taylor Ranch and Twilight Ride, and lands north and west of the proposed parking area at Garden Bar Road are also currently under Williamson Act contracts.

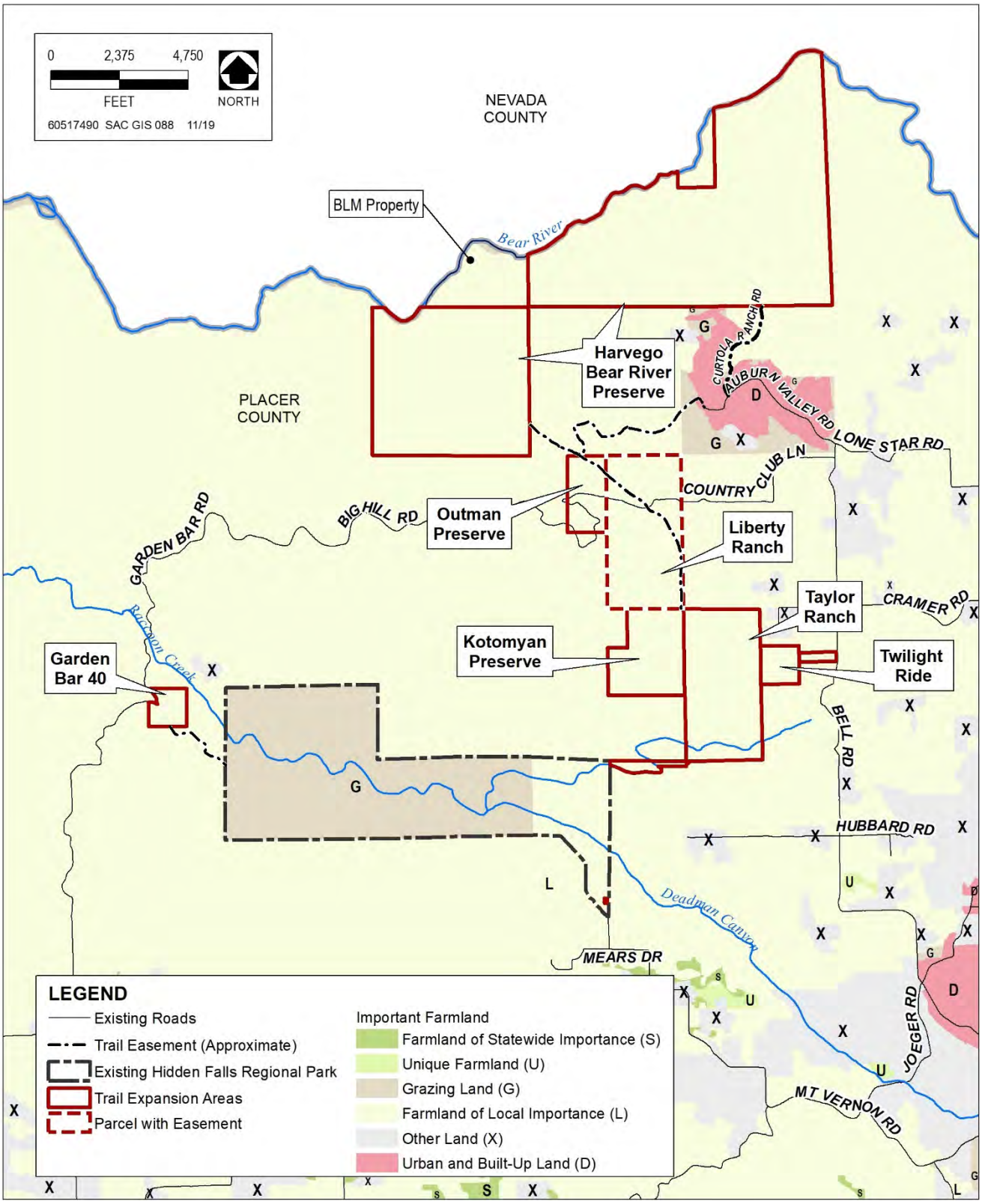
### 4.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified by the 2013 General Plan for land use and recreation:

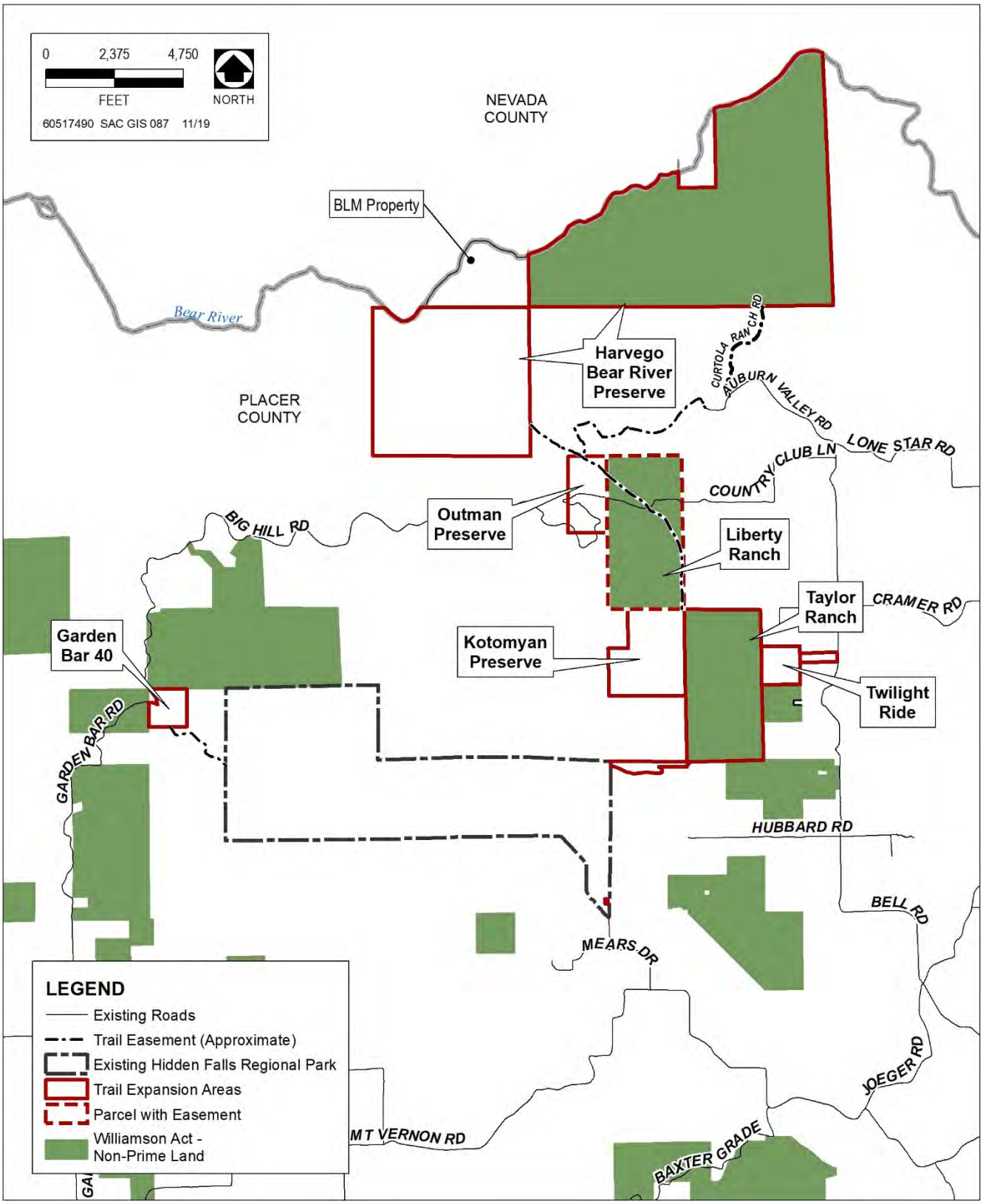
**GOAL 1.G:** To designate land for and promote the development and expansion of public and private recreational facilities to serve the needs of residents and visitors.

- **Policy 1.G.2.** The County shall strive to have new recreation areas located and designed to encourage and accommodate non-automobile access.




Source: California Department of Conservation 2004

**Exhibit 4-3. Farmland Map**




Source: Department of Conservation 2015

**Exhibit 4-4. Williamson Act Contract Map**

The following are the relevant goals and policies identified by the General Plan for Public Recreation and Parks:

**GOAL 5.A:** To develop and maintain a system of conveniently located, properly-designed parks and recreational facilities to serve the needs of present and future residents, employees, and visitors.

- **Policy 5.A.1.** The County shall strive to achieve and maintain a standard of 10 acres of improved parkland per 1,000 population. The standard shall be comprised of the following:
  - 5 acres of improved active parkland per 1,000 population
  - 5 acres of passive recreation area or open space per 1,000 population
- **Policy 5.A.2.** (g) The County shall strive to achieve 1 mile of recreation trail per 1,000 residents.
- **Policy 5.A.10.** The County shall ensure that park design is appropriate to the recreational needs and, where feasible, access capabilities of all residents, employees, and visitors of Placer County.
- **Policy 5.A.11.** Regional and local recreation facilities should reflect the character of the area and the existing and anticipated demand for such facilities.
- **Policy 5.A.12**. The County shall encourage recreational development that complements the natural features of the area, including the topography, waterways, vegetation, and soil characteristics.
- **Policy 5.A.13**. The County shall ensure that recreational activity is distributed and managed according to an area's carrying capacity, with special emphasis on controlling adverse environmental impacts, conflict between uses, and trespass. At the same time, the regional importance of each area's recreation resources shall be recognized.
- **Policy 5.A.20.** The County shall promote cooperation between agencies to ensure flexibility in the development of park areas and recreational services to respond to changing trends in recreation activities.
- **Policy 5A.22.** County shall encourage compatible recreational use of riparian areas along streams and creeks where public access can be balanced with environmental values and private property rights.

**GOAL 5.C:** To develop a system of interconnected hiking, riding, and bicycling trails and paths suitable for active recreation and transportation and circulation.

- **Policy 5.C.1.** The County shall support development of a countywide trail system designed to achieve the following objectives: a. Provide safe, pleasant, and convenient travel by foot, horse, or bicycle; b. Link residential areas, schools, community buildings, parks, and other community facilities within residential developments. Whenever possible, trails should connect to the countywide trail system, regional trails, and the trail or bikeways plans of cities.
- **Policy 5.C.3.** The County shall work with other public agencies to coordinate the development of equestrian, pedestrian, and bicycle trails.

The following are the relevant goals and policies identified by the General Plan for agricultural resources:

**GOAL 7.A:** To provide for the long-term conservation and use of agriculturally-designated lands.

- **Policy 7.A.1.** The County shall protect agriculturally-designated areas from conversion to non-agricultural uses.
- **Policy 7.A.3.** The County shall encourage continued and, where possible, increased agricultural activities on lands suited to agricultural uses.
- **Policy 7.A.7.** The County shall maintain agricultural lands in large parcel sizes to retain viable farming units.
- **Policy 7.A.13.** The County shall encourage multi-seasonal use of agricultural lands such as for private recreational development, in order to enhance the economic viability of agricultural operations.

**GOAL 7.B:** To minimize existing and future conflicts between agricultural and non-agricultural uses in agriculturally-designated areas.

### PLACER COUNTY ZONING ORDINANCE

The County Zoning Ordinance, Chapter 17 of the County Code, was adopted by the County Board of Supervisors in July 1995 (Edition No. 1). The Zoning Ordinance, Tenth Edition, was revised in September 2011. The County Zoning Ordinance, which is consistent with the General Plan, regulates the use of land, buildings, and structures and establishes minimum regulations and standards for the development of land within the county. Zoning designations for the project area are described in Section 4.1.1 above.

### PLACER LEGACY OPEN SPACE AND AGRICULTURAL CONSERVATION PROGRAM

The Placer Legacy Open Space and Agricultural Conservation Program (Placer Legacy) was established in 2000 by the Placer County Board of Supervisors to implement specific elements of the County General Plan that support proactive open space conservation and protection while benefiting the County's economic future and supporting local land use control. The key objectives include:

- Maintain a viable agricultural segment of the economy
- Conserve natural features necessary for access to a variety of outdoor recreation opportunities;
- Retain important scenic and historic areas;
- Preserve the diversity of plant and animal communities;
- Protect endangered and other special status plant and animal species;
- Separate urban areas into distinct communities; and
- Ensure public safety.

HFRP and the expansion properties were purchased in whole or part through Placer Legacy with the express purpose of furthering the objectives of the Program. The development and operation of HFRP and expansion properties will be undertaken consistently with the objectives of Placer Legacy. Examples include ongoing grazing leases that support the agricultural economy, limitation on ground disturbance to preserve large meaningful tracts of undisturbed plant and animal habitats, and restrictions on any further subdivision and development.

## 4.4 IMPACTS

### 4.4.1 ANALYSIS METHODOLOGY

This section considers the land use and agricultural resource impacts that would result from the construction and operation of the proposed Trails Expansion project. This evaluation was based on a review of existing policies from planning documents pertaining to the proposed project area (General Plan, County Zoning Ordinance); and field review of the proposed project area and surroundings.

### 4.4.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on land use and agricultural resources if it would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use;
- conflict with existing zoning for agricultural use, or a Williamson Act contract;
- involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to nonagricultural use;
- physically divide an established community;
- conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

#### ISSUES REMOVED FROM FURTHER CONSIDERATION

The project area includes expansive undeveloped lands and the surrounding area consists of rolling hills and comprises primarily private lands used for agriculture, grazing, and rural residences; therefore, the project would not divide an established community. For this reason, this topic will not be discussed further.

### 4.4.3 IMPACT ANALYSIS

IMPACT 4-1 Land Use and Agricultural Resources—Adverse Effect on Agricultural or Timber Resource Operations or Conversion of Important Farmland to Nonagricultural Uses. *The project area is designated as Farmland of Local Importance. Taylor Ranch and the east parcel of the Harvego Preserve, as well as Liberty Ranch, are currently under Williamson Act contract. The proposed project would increase use of the area by the public where grazing activities currently take place. Although this change would be different from surrounding uses, project elements would ensure compatibility with land uses in the project area. Current grazing activities have been and would continue on the properties and such activities are included as a component of the County's Vegetation, Fuels, and Range Management Plan (2007) for operations and maintenance of the existing park as well as the Land Management Plans for the various properties owned by PLT. Management Plans and the Placer County Public Recreation Ordinance would be adapted to ensure regulation of public activities that have the potential to impact agricultural operations on expansion properties. Therefore, the properties' agricultural use would be*

*sustained as part of the project. The Timberland land use designation for the project area allows forestry uses, while also allowing open space, residential, and recreation land uses in the same areas.*

| | |
|---|---|
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Required* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The inclusion of the Spears Ranch area in HFRP allowed for continuation of existing agricultural activities, including grazing; farm management practices (e.g., maintenance of fences, potential expansion of irrigated pastureland); agricultural research projects conducted by qualified institutions; agricultural education programs; and potential leases for grazing and/or agricultural use. All of these opportunities support agricultural industry. In addition, the existing park project area was not enrolled in a Williamson Act contract. The park area has not been used for timber resource operations and was not expected to be used for this purpose in the future. Because the formation of the HFRP allowed for ongoing agricultural components, including continuation of livestock grazing, and public use of a natural surface trail system is considered compatible with agricultural uses, this was found to be **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

Similar to HFRP, land proposed for the trail expansion is also agricultural in nature. Exhibit 4-3 shows the proposed project area is designated as Farmland of Local Importance while Exhibit 4-4 shows large portions of the project area are under active Williamson Act contracts such as Taylor Ranch and the east Harvego parcel, as well as Liberty Ranch. Currently, grazing takes place on portions of the property and on some adjacent properties. The PLT-owned parcels utilize cattle grazing as an important component of their land management practices and have publicly stated that they will continue grazing leases with ranchers should this project be approved. Within the existing HFRP, the County's cattle grazing lease with an adjacent rancher has expired. The County currently utilizes goat grazing and is working to establish one or more new cattle grazing leases for HFRP. The County is currently visiting and studying the grazing practices of open space recreation agencies in the San Francisco Bay Area that have years of experience in the integration of grazing with public trails as models to help craft grazing leases that successfully provide for public integration, habitat protection/enhancement, and fire risk reduction.

Proposed public use of the project area includes hiking, biking, and equestrian riding. Supporting these uses would be physical amenities that include various benches and picnic tables, bridge crossings, overlooks, restrooms, and interpretive signage dispersed throughout the project area. In order to provide access to the trail expansion areas, three new parking areas would also be constructed, and the existing Mears parking area would be expanded by 25 parking spaces. Constructing recreational facilities in the project area would not result in or encourage the conversion of any surrounding farmland to nonagricultural use as outdoor recreation is compatible with agriculture in Williamson Act documentation and in the Land Evaluation Site Assessment (LESA) model, which is a model that evaluates and rates potential impacts to agricultural lands. Because outdoor recreation uses

are considered compatible with agricultural uses when actively managed, this impact would be **less than significant**.

The proposed HFRP trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances, or new information.

| | |
|---|---|
| IMPACT 4-2 | Land Use and Agricultural Resources—Alteration of Land Use and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area. *Outdoor recreation would be a new land use for the project area. The proposed project would add parking and trails that would increase use of the project area by the public where agricultural activities and/or docent-led tours currently take place. Although different from surrounding uses, project elements would ensure compatibility with land uses adjacent to the project area.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

In 2010, the surrounding land uses to HFRP were primarily rural residential and cattle grazing. The park project included continuation of agricultural uses, including grazing, and the Didion Ranch portion of the park was already open for recreation at that time. Outdoor recreation uses were considered compatible with agricultural uses based upon the allowance for parks within the Farm zone district. Therefore, the park project was determined to be consistent with existing and future adjacent land uses and potential conflicts with existing or future land uses adjacent to the project area were determined to be a **less than significant** impact.

### 2019 HFRP Trails Expansion Project Impact Summary

Land uses surrounding the proposed trail expansion are primarily rural residential with cattle grazing interspersed. Figure 3-4 contained in Section 3.0 “Project Description” depicts an aerial overview of the proposed trail expansion lands. Portions of the Trail Expansion are near residential neighborhoods immediately to the south of the Harvego Preserve. Several rural residences are located between approximately 40 and 350 feet from the north property line of Twilight Ride, and several rural residences are located between 650 to 1,400 feet from the southern project boundary of the Garden Bar 40 parcel. Besides rural residential residences, additional land uses in the areas surrounding the trail expansion areas consist of cattle grazing, and other forms of agriculture.

Land uses adjacent to the project area are designated by the General Plan as Agriculture, 20-acre minimum lot area, Timberland, 20-acre minimum lot area, and Rural Residential with one to ten acre minimums and are zoned as Farm with Building Site (F-B-X 20-acre minimum, F-B-X 40, F-B-X 50, and F-B-X 160) by the County

Zoning Ordinance. According to the County's Zoning Ordinance, which governs land uses within Placer County, Farm zoning allows for recreation uses including parks.

The project would support hiking, cycling and equestrian uses, which are compatible with activities on land under a Williamson Act contract. PLT has stated their intent to continue cattle grazing as a part of their land management plan. Until 2013, when the cattle grazing lease ran out at the existing Hidden Falls park, there had been active cattle grazing on the land. The County Parks Division is interested in re-establishing a cattle grazing contract for the HFRP. Currently, annual goat grazing is conducted in order to maintain the 120 acres of shaded fuel breaks and buffer zones around the parking area at Mears. Therefore, the proposed project would be consistent with existing and future adjacent land uses and this would be a less-than-significant impact.

Within existing portions of HFRP and the expansion areas, field fencing will be strategically used to create managed paddocks for rotational grazing and in specific areas, to create separation between the public and sensitive, privately-grazed lands (e.g., protection of neighboring livestock near a parking area from feeding by the public). The trail easement agreement for Liberty Ranch requires the placement of fencing adjacent to the trail easement in key areas to keep the public confined to the trail and away from adjacent private property.

The proposed HFRP trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances, or new information.

| | |
|---|---|
| IMPACT 4-3 | Land Use and Agricultural Resources—Potential for Conflicts with Land Use or Agricultural Resource Plans, Policies, or Regulations. *The County determines allowable land uses at a parcel-level according to the zoning code. The zoning district applicable to the project area is Farm and Building Site ranging from 10 to 160 acre minimums. According to the Placer County zoning code, the proposed project would be allowed in the entire project area with approval of a minor use permit (MUP) and would not require rezoning. Further, use of the property for trail expansion is considered compatible with grazing and agricultural use, with grazing activities and agricultural use continuing after the project is implemented and maintaining the natural state of the area. Therefore, proposed project is consistent with existing plans, policies, and regulations.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP Certified EIR determined that the proposed park use was consistent with the County's zoning of the Spears Ranch portion of the park, and with the implementation of a Conditional Use Permit (CUP), the project would comply with the County's planning documents. Expansion of the parking area on the Didion Ranch portion of the park (Mears Drive) and relocating the adjacent helistop within this part of the park would not introduce any

new land uses, and considering the distance to the closest rural homes, fencing and gates to contain cattle, trail placement, property boundary signage, and park patrols, significant land use conflicts with nearby residences would not be expected. The County found the HFRP project had been designed for compatibility with residences and agricultural activities in the surrounding area and included components that ensured compatibility with surrounding land uses and was consistent with planning documents, policies, and regulations.

Although only a Minor Use Permit (MUP) was needed at the time the project was being processed in 2010, the entitlement request was elevated to a CUP since the project request was accompanied by an EIR.

### 2019 HFRP Trails Expansion Project Impact Analysis

The County determines allowable land uses at a parcel-level according to the zoning code. Additionally, the Timberland land use designation in the General Plan for the project area allows forestry uses, while also allowing open space, residential, and recreation land uses in the same areas.

The zoning district applicable to the project area is Farm and Building Site ranging from 10 to 160 acre minimums. The purpose of the Farm (F) zone is to provide areas for commercial agricultural operations that can also accommodate necessary services to support agricultural uses, together with residential land uses at low population densities. Allowable land uses in the Farm zone include a variety of uses, including parks. According to the Placer County zoning code, the proposed project would be allowed in the entire project area with approval of a MUP. As stated above, the existing HFRP is governed by a CUP, so the requested entitlement for the trails expansion project is a modification to the existing CUP.

Approval of a CUP is required for certain land uses that are generally consistent with the zone's purposes but that could create compatibility issues for adjoining properties, the surrounding area, and their populations if not designed to avoid effects on surrounding land uses. The purpose of a CUP is to allow County Planning staff and decision makers to evaluate one or more proposed uses to determine whether land use conflicts may occur, to provide members of the public with an opportunity to review the proposed project and express their concerns in a public hearing, to work with the project applicant to adjust the project through conditions of approval to solve any potential conflicts that are identified, or to disapprove a project if identified conflicts cannot be acceptably corrected. The modified CUP would ensure that both the existing HFRP and the trails expansion area are compatible with the surrounding privately-owned properties.

The HFRP CUP, No. 20090391, was previously approved on January 28, 2010. As such, the proposed project would require modification of the CUP to address the additional parking spaces provided at the Mears entry; the addition of new access and parking areas at the Harvego Preserve, Twilight Ride and Garden Bar 40 sites; and the expanded trail system. The modified CUP would also require clarification of how the new proposed levels of access tie to a series of phased roadway improvements and management options at each of the new entries.

The proposed HFRP trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances, or new information.

| | |
|---|---|
| IMPACT 4-4 | Land Use and Agricultural Resources—Local Roadway Improvements and Potential Conflicts with Existing or Future Land Uses Adjacent to the Project Area. *The County's discretionary actions associated with the proposed project would include approval of a modified CUP covering the existing park and the expansion areas, including the parcel west of the existing park that was acquired by the County in 2016 and the areas east of the park that connect to Taylor Ranch. The improvements would be limited generally to the existing roadway corridors and would not adversely affect adjacent agricultural land uses.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The existing CUP allows for an additional parking area at the western end of the park with access via Garden Bar Road. Pursuant to the CUP and 2010 HFRP Certified EIR, the County can provide limited, reservation-based access off Garden Bar Road for classroom-sized groups and handicap-placarded vehicles that would not require off-site road improvements to Garden Bar Road or widening of on-site roads (see Chapter 3 "Project Description," Table 3-1 of the 2010 Certified EIR). Although public use of the Garden Bar entry has not to date been instituted, the 2010 EIR and CUP both allow for those uses.

To meet the demands of increased traffic during the Garden Bar Phases 2 and 3 of proposed park development, widening would be required on Garden Bar Road. Existing roadside ditches would be reconstructed where the road would be widened. However, the County would work with existing land owners to negotiate the purchase of additional right-of-way from willing sellers as needed for the proposed improvements. Although approved as part of the 2010 EIR, the County has not pursued the development of phases 2 or 3 of the Garden Bar Entrance. This was found to be a **less-than-significant** impact.

### 2019 HFRP Trails Expansion Project Impact Analysis

This SEIR proposes additional phasing steps between Phase 1 and Phase 2 of the Garden Bar entrance. Phase 1A, 1B and 1C improvements, both on and off site, would be constructed in sequence through a series of gradual steps and would include incremental improvements to Garden Bar Road. The County is planning to construct a new gated parking lot off Garden Bar Road on the Garden Bar 40 parcel to the west of HFRP. The entrance gate is envisioned to be an automated gate that would open by scanning a barcode or manually entering a code. Additionally, entrances to two other parking areas are proposed off of Bell Road and Curtola Ranch Road. While improvements at the entrances from these roads would be required, the improvements would be mostly limited to the existing roadway corridors and onsite areas, and would therefore not adversely affect adjacent agricultural land uses.

The proposed HFRP trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to adjacent existing or future land uses based on changes in the project, circumstances, or new information.

## 4.5 MITIGATION MEASURES

No mitigation measures are necessary.

# 5.0 SOILS, GEOLOGY, SEISMICITY, AND MINERAL RESOURCES

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) soils, geology, seismicity, and mineral resources findings; describes the HFRP and proposed trail network expansion project area (project area) environmental setting and pertinent regulations; evaluates proposed project-related impacts associated with on-site geology, soils, seismic hazards, minerals, and paleontological resources; and provides mitigation measures as necessary to reduce those impacts.

## 5.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 CERTIFIED EIR

Chapter 5, "Soils, Geology and Seismicity," of the 2010 HFRP Certified EIR included a detailed discussion of the park environmental and regulatory setting, potential impacts associated with soils, geology, and mineral resources resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts.

### 5.1.1 FINDINGS OF FACT

The following is a summary of the 2010 EIR findings.

- Because of soil types and topography, the excavation and grading of soil could result in erosion during park construction. Preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practices (BMPs), and obtaining a Regional Water Quality Control Board (RWQCB) permit to reduce the amount of soil eroding and entering area waterways and fulfilling all permit conditions, reduced this potentially significant impact to **less than significant**.

- Although risks to people from naturally occurring asbestos during park construction could expose workers to asbestos, conducting soil testing and implementing an Asbestos Dust Control Plan, if needed, reduced the potentially significant impact to **less than significant**.

- Obtaining and implementing seismic engineering design recommendations reduced potentially significant impacts on people and structures from seismic ground shaking or fault rupture to **less than significant**.

- Because construction on steep slopes would be avoided where possible and no areas of shallow slope instability and/or small landslide areas were identified in the park project area, the risks to people and structures caused by landslides was determined to be **less than significant**.

- On-site soil testing for the park project confirmed soils capable of supporting a conventional septic system; therefore, the impact was considered **less than significant**.

- The park project area is not delineated as a locally important mineral recovery site. Therefore, it was determined there was **no impact** with regard to mineral resources.

### 5.1.2 HFRP MITIGATION MEASURES ADOPTED BY THE COUNTY IN 2010

Implementation of the following mitigation measures, which were adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on soils, geology, and seismicity to less than significant.

- **Mitigation Measure S5-1:** Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.

- **Mitigation Measure S5-2:** Obtain and Implement Seismic Engineering Design Recommendations.

## 5.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The HFRP Trails Expansion Project Subsequent EIR describes the physical environmental conditions of the proposed trails network expansion. See Chapter 5.0 "Soils, Geology, Seismicity and Mineral Resources" of the 2010 HFRP EIR for information about the existing park.

### 5.2.1 PHYSIOGRAPHIC SETTING

As with the existing park, the proposed trails expansion area is located along the western slope of the Sierra Nevada Geomorphic Province. The Sierra Nevada Geomorphic Province is a tilted fault block nearly 400 miles long. Its east face is a high, rugged multiple scarp, in contrast with the western face, which slopes gently from the foothills and is buried underneath alluvial sedimentary deposits at the eastern margin of the Central Valley.

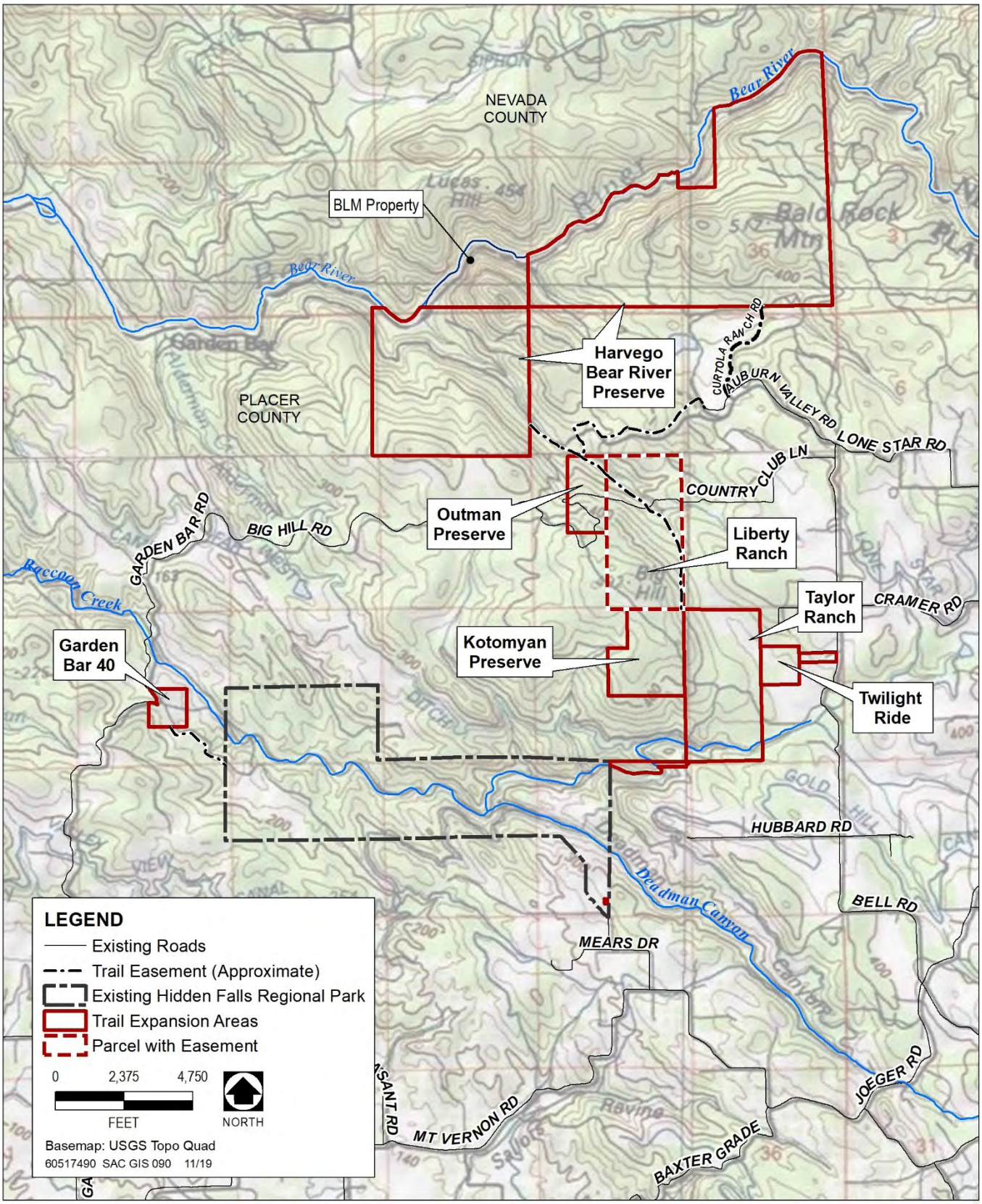
The western slope of the northern Sierra Nevada is underlain by a series of metamorphic rock assemblages that trend north-northwest to south-southeast between the Mesozoic granitics of the Sierra Nevada batholith on the east and the sediment-filled Sacramento Valley to the west. These metamorphic rocks were developed by convergent plate tectonics between the early Paleozoic era and the Late Jurassic period (400–120 million years Before Present [B.P.]) and consist of three northerly trending units bounded by faults and classified on the basis of age and lithology: the Eastern, Central, and Western metamorphic terranes. The project site is located in the Western Sierra Nevada Foothills Metamorphic Belt.

### 5.2.2 LOCAL GEOLOGY

#### TOPOGRAPHY

The trails expansion project areas are located northeast, west and east of the existing park and span across the U.S. Geological Survey (USGS) Gold Hill 7.5-minute quadrangle to the Wolf 7.5-minute quadrangle. Slope and aspect vary over the project area (Exhibit 5-1). The Harvego Preserve ranges from a low of approximately 500 feet above mean sea level (amsl) in the northwestern portion (along Bear River) to 1,694 feet amsl at Bald Rock Mountain.

The Outman Preserve ranges from 800 to 1,480 feet amsl. The northern half of the property has a generally northeast-facing aspect that slopes down to an un-named perennial stream. The southern portion of the property has a generally south-facing aspect. The majority of the Liberty Ranch extends north from the highest point on Big Hill with an elevation of 1,613 feet amsl and has a north-northeast facing aspect. The northern most third of the property, extending up from the creek bottom has a generally west-southwest facing aspect. The portion of the property extending north of the top of Big Hill drains into the Bear River. The southwest corner of the property slopes southwest from the highest point on Big Hill and eventually drains into Raccoon Creek.




Source: USGS Topo Quad Adapted by AECOM 2019

**Exhibit 5-1. Project Area Topography**

The Taylor Ranch and connectivity parcels to the existing HFRP range from 1,000 to 1,400 feet amsl. Running east to west, Raccoon Creek bisects the property. A little under one-quarter of the property extends south of Raccoon Creek, with the remaining majority of the property extending north from the Creek. The northern third of the property has a generally east-facing aspect and includes poorly-drained soils. The central portion of the property has a generally south-facing aspect that slopes downs to Raccoon Creek. The portion of the property on the south side of the creek is characterized by north facing slopes and large rock outcroppings. The Kotomyan Preserve ranges from approximately 1,300 to 1,500 feet amsl and the Twilight Ride parcel ranges from 1,100 to 1,200 feet amsl. The Garden Bar 40 parcel ranges from 490 to 650 feet amsl.

#### GEOLOGIC FORMATIONS

Based on a review of regional geologic maps (Saucedo and Wagner 1992, Gutierrez 2011), most of the project-related work areas are located in volcanic rocks of the Smartville Complex. The proposed parking and trail access at Garden Bar is located in area of pyroclastic rocks, which is also part of the Smartville Complex. These rock formations are discussed below.

**Smartville Complex–Volcanic Rocks.** The Smartville Complex is a Late Paleozoic to Mesozoic-age volcanic arc assemblage consisting of a mixture of sedimentary, volcanic, hypabyssal, and plutonic rocks. In the project area, volcanic rocks are present, consisting of pyroclastic and volcaniclastic rocks, pillow lavas, breccias, and massive flows.

**Smartville Complex–Jurassic Volcanic Rocks.** Part of the Smartville Complex, this formation consists of Jurassic-age metamorphosed mafic to felsic pyroclastic rocks, flows, and volcaniclastic rocks, along with some greywacke and meta-argillite.

### 5.2.3 PALEONTOLOGICAL RESOURCES

The potential paleontological sensitivity of a project area can be assessed by identifying the paleontological importance of rock units that are exposed there. A paleontologically sensitive rock formation is one that is rated high for potential paleontological productivity (i.e., the recorded abundance and types of fossil specimens, and the number of previously recorded fossil sites) and is known to have produced unique, scientifically important fossils. Exposures of a specific rock formation at any given project site are most likely to yield fossil remains representing particular species or quantities similar to those previously recorded from the rock formation in other locations. Therefore, the paleontological sensitivity determination of a rock formation is based primarily on the types and numbers of fossils that have been previously recorded from that rock unit.

An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;

- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).

The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates are generally common; the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare.

In its standard guidelines for assessment and mitigation of adverse impacts on paleontological resources, the Society of Vertebrate Paleontology (1996) established three categories of sensitivity for paleontological resources: high, low, and undetermined. Areas where fossils have been previously found are considered to have a high sensitivity and a high potential to produce fossils. Areas that are not sedimentary in origin and that have not been known to produce fossils in the past typically are considered to have low sensitivity. Areas that have not had any previous paleontological resource surveys or fossil finds are considered to be of undetermined sensitivity until surveys and mapping are performed to determine their sensitivity. In keeping with the SVP significance criteria, all vertebrate fossils are generally categorized as being of potentially significant scientific value.

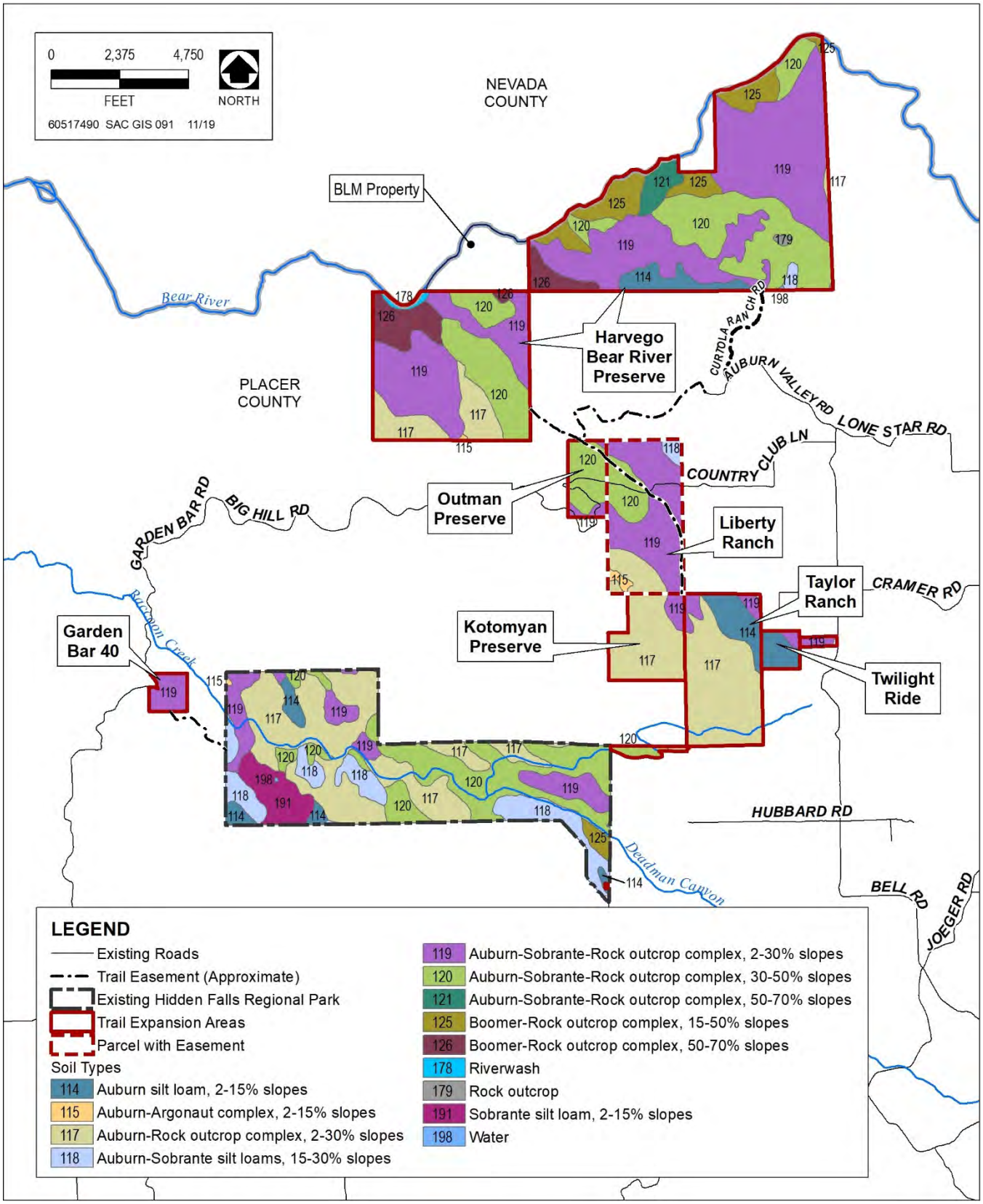
As discussed above, the project-related work areas are located in Late Paleozoic to Mesozoic volcanic and metavolcanic rocks, which are part of the Smartville Complex. These types of rocks have a low potential for sensitivity.

### 5.2.4 SOIL RESOURCES

Maps provided by the U.S. Natural Resources Conservation Service (NRCS) were reviewed to identify the distribution of soil types in the project area. Exhibit 5-2 provides a detailed map of the surficial soils in the project area. The physical and chemical characteristics of each soil type identified in the project area are presented below (NRCS 2018).

**114 Auburn silt loam, 2–15% slopes—**This soil is shallow and undulating to rolling. It is well drained and underlain by vertically tilted metamorphic rock. The soil forms in residuum on foothills. Typically, the surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil. The erosion hazard for this soil is slight to moderate. This soil is used mainly for irrigated pasture and rangeland because of its shallowness.

**115 Auburn-argonaut complex, 2–15% slopes—**These soils are undulating to rolling and located on broad slopes, in swales, and on concave foot slopes of metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted basic schist and slate. This soil's surface layer is typically strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with basic schist at a depth of 20 inches. The soil erosion hazard for Auburn soil is slight to moderate. The Argonaut soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, this soil's surface layer is strong brown loam and yellowish-red silt loam about 9 inches thick over yellowish-red clay loam with weathered basic schist at a depth of 25 inches. The soil erosion hazard for Argonaut soil is slight to moderate. Most of these soils are used for annual grassland and some irrigated pasture.




Source: U.S. Natural Resources Conservation Service 2018

**Exhibit 5-2. Soil Types in the Project Area**

**117 Auburn–rock outcrop, 2–30% slopes—**These soils are undulating to hilly and rock outcrops are found on rocky side slopes of metamorphic rock hills. Typically, the Auburn soil surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weather basic schist at a depth of 20 inches. Auburn soil is well drained and forms in residuum from vertically tilted metabasic bedrock. The erosion hazard for Auburn soil is slight to high. Rock outcrops consist of hard metamorphic rock that can reach 1–2 feet in height and cover up to 100 square feet. Surface runoff for rock outcrops is very rapid and there is no erosion hazard. Most of this soil is used for annual rangeland.

**118 Auburn–Sobrante silt loams, 15–30% slopes—**These hilly soils form on metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted metabasic outcrop. Typically, the Auburn surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weathered basic schist at a depth of 20 inches. The erosion hazard for Auburn soil is moderate to high. The Sobrante soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, the Sobrante soil surface layer is yellowish-red silt loam about 7 inches thick over yellowish-red silt and heavy loam subsoil with weathered basic schist at a depth of 33 inches. The erosion hazard for Sobrante soil is slight to high. This soil is used mostly for deciduous orchards and irrigated pasture.

**119 Auburn–Sobrante–rock outcrop complex, 2–30% slopes—**These undulating to hilly soils form on rock side slopes of metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted metabasic bedrock. Typically, the Auburn soil surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weathered basic schist at a depth of 20 inches. The erosion hazard for Auburn soil is slight to high. The Sobrante soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, the Sobrante soil surface layer is yellowish-red silt loam about 7 inches thick over yellowish-red silt and heavy loam subsoil with weathered basic schist at a depth of 33 inches.

The erosion hazard for Sobrante soil is slight to high. Rock outcrop consists of hard metamorphic rock that can reach 1 to 2 feet in height and cover up to 500 square feet. Surface runoff for rock outcrop is very rapid and there is no erosion hazard. These soils are mostly used for deciduous orchards and irrigated pasture.

**120 Auburn–Sobrante–rock outcrop complex, 30–50% slopes—**These steep soils form on rocky canyon sides of metamorphic rock foothills. The Auburn soil is shallow and well drained and forms in residuum from vertically tilted metabasic bedrock. Typically, the Auburn soil surface layer is strong brown silt loam about 4 inches thick over yellowish-red silt loam subsoil with weathered basic schist at a depth of 20 inches. The erosion hazard for Auburn is slight to high. The Sobrante soil is moderately deep and well drained and forms in residuum from metabasic rock. Typically, the Sobrante soil surface layer is yellowish red silt loam about 7 inches thick over yellowish-red silt and heavy loam subsoil with weathered basic schist at a depth of 33 inches. The erosion hazard for Sobrante is slight to high. Rock outcrops consist of hard metamorphic rock that can reach 1–2 feet in height and cover up to 500 square feet. Surface runoff for rock outcrop is very rapid and there is no erosion hazard. These soils are mostly used for annual rangeland and watershed.

**121 Auburn-sobrante-rock outcrop complex, 50–70% slopes—**This soil occurs on very steep soils and on rocky canyons of major drainageways in metamorphic foothills. Typically, the surface layer is brown silt loam about 4 inches thick and the subsoil is yellowish red silt loam. Surface runoff is very rapid and there is no erosion hazard. This unit is used mainly for watershed purposes and has limited grazing value.

**125 Boomer–rock outcrop, 15–50% slopes—**This steep soil and rock outcrop are found on rocky side slopes of mountainous uplands. Typically, the Boomer soil surface layer is brown and yellowish-red gravelly loam about 10 inches thick over reddish-yellow gravelly clay loam subsoil with weather basic schist at a depth of 58 inches. Boomer soil is well drained and deep over weathered metabasic rock and forms in the residuum from amphibolite schist or meta-andesite. The erosion hazard for Boomer soil is high. Rock outcrops consist of areas of scattered hard metamorphic rock that can reach 2–5 feet in height and cover up to 500 square feet. Surface runoff for rock outcrops is very rapid and there is no erosion hazard. Most of this soil is used for wood crops.

**126 Boomer-rock outcrop complex, 50–70% slopes—**This soil occurs on rocky canyons of mountainous uplands. Typically, the surface layer is brown and yellowish red gravelly loam about 10 inches thick and the subsoil is reddish yellow gravelly clay loam. The Boomer soil is well drained and is deep over weathered metabasic rock. The erosion hazard for this soil is high. This unit is used for wood crops and watershed and is suited to ponderosa pine production. The major limitation to timber production are steep slopes.

**178 Riverwash—**Riverwash occurs in and along channels of the Bear River. It is highly stratified stony and bouldery sand that is typically barren. It is inundated yearly by floodwater. About 50 percent of it is covered with water. Riverwash is subject to scouring or cutting as well as to deposition, depending on riverflow and bedload. Included are areas of tailings. Permeability is very rapid. The available water capacity and drainage are variable. Surface runoff is rapid. Riverwash is used for watershed. It also provides good habitat for wildlife.

**179 Rock outcrop—**Rock outcrop occurs on the rocky side slopes and canyons of mountainous uplands at elevations of 1,000 to 2,000 feet. Rock outcrop consists of scattered hard metamorphic rock, generally ranging in height from 1 to 5 feet. Surface runoff is rapid and there is no erosion hazard. Typically rock outcrop does not appreciably affect the use of surrounding soil units for grazing or timber production. However, it poses substantial limitations for construction of structures and infrastructure.

**191 Sobrante silt loam, 2–15% slopes—**This soil is moderately deep, undulating to rolling, and well drained. It is underlain by weathered metabasic rock and forms in residuum on foothills. Typically, the surface layer is yellowish-red silt loam about 7 inches thick over yellowish-red silt loam subsoil with highly weathered basic schist at a depth of 33 inches. The erosion hazard for this soil is slight to moderate. This soil is used mostly for deciduous orchards and irrigated pasture.

### SHRINK-SWELL POTENTIAL

Shrink-swell potential is the amount of volume change related to a loss or gain in soil moisture; soils swell when wet and shrink when dry. If the shrink-swell potential is rated moderate to high, volume changes can eventually result in damage to subsurface structures if they are not designed and constructed appropriately to resist the changing soil conditions. Soils with high clay content tend to be most affected by shrink and swell. The potential for soil to undergo shrink and swell is greatly enhanced by the presence of a fluctuating, shallow groundwater table. Volume changes of expansive soils can result in the consolidation of soft clays after the water table drops or fill is placed. Project area soils are underlain by bedrock at a shallow depth (NRCS 2018). Therefore, the soils have a low expansion potential.

### SOIL SUITABILITY FOR SEPTIC SYSTEMS

For a septic system to function properly, soils must percolate (or "perc")—that is, a certain volume of wastewater must flow through the soil in a certain time period, as determined by a licensed qualified consultant. Wastewater is "treated" as soil bacteria feed on the waste material and in the process, break down the material into more basic elements that are dispersed into the lower layers of the soil horizon. If wastewater percolates through the soil too quickly, the bacteria do not have enough time to digest the material. On the other hand, if wastewater percolates through the soil too slowly, the bacteria are killed by the lack of oxygen.

Soils in the HFRP Trail Expansion area consist of a shallow soil horizon underlain by bedrock. Therefore, NRCS (2018) has rated the soils as very limited for use with septic systems. This generally means that project site soils are unsuitable for conventional septic systems, and specifically engineered systems would have to be designed, permitted, and implemented.

Soil tests are used to identify the drainage characteristics of the soil, the seasonal high water table, and the depth of the "limiting zone," where the soil is unsuitable for treating sewage. Soil mantel testing and percolation testing conducted in 2019 at the proposed parking lots on the Twilight Ride, Garden Bar 40, and Harvego Preserve entries found areas suitable for use of engineered septic systems at each study location (with sufficient areas for replacement septic fields, should the primary septic fields ever need to be decommissioned) (Lindbloom 2019). The average percolation rate for the Twilight Ride was 28 minutes per inch of drop (mpi) at a depth of 17 to 20 inches. Soils at the proposed Harvego Preserve parking area percolated at a rate of 15 mpi at a depth of 12 to 24 inches, while the percolation rate at Garden Bar 40 was 28 mpi at a depth of 20 to 28 inches.

### 5.2.3 RECREATIONAL GEOLOGIC FEATURES

Recreational geologic resources typically include volcanoes, surface hydrothermal features, or surface expressions of geologic features unique enough to generate recreational interest in the general public (e.g., natural bridges, caves, features associated with glaciation, and geomorphic features such as waterfalls, cliffs, canyons, and badlands). The southeastern-most portion of the project area contains rock outcroppings. These rock outcroppings could be considered a recreational geologic resource for the project area.

## 5.2.5 REGIONAL SEISMICITY AND FAULT ZONES

The project area is not located within or near an Alquist-Priolo Earthquake Fault Zone (California Geological Survey [CGS] 2017). The Placer County foothills are traversed by a series of northwest-trending faults, called the Foothills Fault Zone. The Bear Mountains Fault Zone is the westernmost strand of the Foothills Fault Zone in the Western Sierra Metamorphic Belt. Based on a review of the *2010 California Fault Activity Map* (Jennings and Bryant 2010), the northern end of the Deadman Fault (in the Bear Mountains Fault Zone) crosses through the eastern portion of the expansion project area. The Deadman Fault has shown evidence of activity during the last 700,000 years (i.e., the Late Quaternary), and therefore is considered potentially active.

The closest active fault to the project area is the Cleveland Hills fault, approximately 36 miles to the northwest. In 1975, a magnitude 5.7 earthquake occurred along this fault, south of Lake Oroville. However, subsequent research conducted by the California Department of Water Resources (DWR) indicated that the earthquake mostly likely resulted from reservoir-induced stress (DWR 1979). The eastern portion of Placer County around Lake Tahoe contains several active and potentially active faults; however, these faults are approximately 57 miles east

of the project site. The western portion of Placer County, where the project site is located, has generally not been seismically active (Jennings and Bryant 2010).

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is fault ground rupture, also called surface faulting. Surface ground rupture along faults is generally limited to a linear zone a few meters wide. Common secondary seismic hazards include ground shaking, liquefaction, and subsidence. These hazards are discussed below.

### SEISMIC GROUND SHAKING

The most important geologic hazard that could affect the project area is the risk to life and property from an earthquake generated by potentially active faults in the foothills fault system.

Peak horizontal ground acceleration (PGA), which is a measure of the projected intensity of ground shaking from seismic events, can be estimated by probabilistic method using a computer model. The CGS Probabilistic Seismic Hazards Assessment Model (CGS 2008) indicates there is a 1-in-10 probability that an earthquake within 50 years would result in a PGA of approximately 0.140. This estimate indicates that a very low level of seismic shaking would be anticipated in the project area.

### GROUND FAILURE/LIQUEFACTION

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thereby becoming similar to quicksand. Factors determining liquefaction potential are soil type, level and duration of ground motions, and depth to groundwater. Liquefaction is most likely to occur in low-lying areas with a shallow groundwater table, where the substrate consists of poorly consolidated to unconsolidated water-saturated sediments, recent Holocene-age sediments, or deposits of artificial fill. One consequence that may result from the occurrence of liquefaction is an associated surface expression. If a seismic event occurs over an extended duration, the liquefied soils may migrate toward the surface, resulting in ejection and subsequent sand boiling at the surface.

Liquefaction poses a hazard to engineered structures. Factors determining the liquefaction potential of a given site are the level and duration of possible seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits are susceptible to liquefaction. Liquefaction is particularly likely where land has been reclaimed from inundated areas by filling with loose sand. Clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking.

Because the project-related work areas are located in Late Paleozoic to Mesozoic age bedrock, the project would not be susceptible to ground failure or liquefaction.

### SUBSIDENCE AND LATERAL SPREADING

Subsidence of the land surface can be induced by tectonic deformations and seismically-induced settlements.

Lateral spreading is the horizontal movement or spreading of soil toward an open face, such as a streambank, the open side of fill embankments, or the sides of levees. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high.

The project area is underlain by consolidated volcanic and metavolcanic rocks; therefore, the project area is not considered susceptible to subsidence or lateral spreading.

#### LANDSLIDING AND SLOPE STABILITY

A landslide is the downslope movement of soil and rock material under the influence of gravity. The potential for landslide occurrence depends on several factors: steepness of slopes, amount of rainfall, vegetation type, proximity to areas undergoing active erosion, seismic ground shaking, and proximity of earthmoving activities to slopes. Some slopes within the project area could be prone to sliding or slumping because gradients reach 70% in some areas. Two soil types in the project area—Auburn–Sobrante–rock outcrop complex and Boomer–rock outcrop—occur on slopes up to 70%.

### 5.2.6 NATURALLY OCCURRING ASBESTOS

Asbestiform minerals occur naturally in rock and soil as the result of natural geologic processes, often in veins near earthquake faults in the Coast Range and the foothills of the Sierra Nevada. Naturally occurring asbestos can take the form of long, thin, separable fibers. Natural weathering or human disturbance can break naturally occurring asbestos down to microscopic fibers that are easily suspended in air.

There is no health threat if asbestos fibers in soil remain undisturbed and do not become airborne. When inhaled, however, these thin fibers irritate tissues and resist the body's natural defenses. Asbestos, a known carcinogen, causes cancers of the lung and the lining of internal organs, as well as asbestosis and other diseases that inhibit lung function.

The California Geological Survey of the California Department of Conservation (DOC) completed a special report in 2006 that studies the likelihood for the presence of naturally occurring asbestos in Placer County. According to this special report, the project area is located in an area moderately likely to contain naturally occurring asbestos (DOC 2006).

The potential presence of and hazards posed by naturally occurring asbestos are discussed in greater detail in Section 9.2.3, "Existing Air Quality—Toxic Air Contaminants," in Chapter 9.0, "Air Quality."

## 5.3 REGULATORY SETTING

#### FEDERAL EARTHQUAKE HAZARDS REDUCTION ACT

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to "reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program." To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in October 2004 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities and program goals and objectives.

The NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through postearthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRPA designates the Federal

Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies are the National Institute of Standards and Technology, the National Science Foundation, and USGS.

## 5.3.1 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

### CALIFORNIA BUILDING STANDARDS CODE

The State of California provides minimum standards for building design through the California Building Standards Code (CBC) (Title 24 of the California Code of Regulations). Where no other building codes apply, Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. The CBC also applies to building design and construction in the state and is based on the federal Uniform Building Code, which is used widely throughout the country and generally adopted on a state-by-state or district-by-district basis. The CBC has been modified for California conditions with numerous more detailed and/or more stringent regulations.

The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. The CBC requires that any structure designed for a project site undergo a seismic-design evaluation that assigns the structure to one of six categories, A–F; Category F structures require the most earthquake-resistant design. The CBC philosophy focuses on “collapse prevention,” meaning that structures are to be designed to prevent collapse during the maximum level of ground shaking that could reasonably be expected to occur at a site. CBC Chapter 16 specifies exactly how each seismic-design category is to be determined on a site-specific basis, based on site-specific soil characteristics and proximity to potential seismic hazards.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, as well as the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates the analysis of expansive soils and the determination of depth to the groundwater table. For structures in Seismic Design Category C, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. For structures in Seismic Design Categories D, E, and F, Chapter 18 requires these same analyses plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and loss of soil strength, and lateral movement or reduction of the foundation’s soil-bearing capacity.

Chapter 18 also requires that mitigation measures be considered in structural design. Mitigation measures may include stabilizing the ground, selecting appropriate foundation types and depths, selecting appropriate structural systems to accommodate anticipated displacements, or using any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak-ground-acceleration magnitudes and source characteristics consistent with the design earthquake ground motions. The peak ground acceleration must be determined in a site-specific study, the contents of which are specified in CBC Chapter 18.

Finally, Appendix J of the CBC regulates grading activities, including drainage and erosion control and construction on expansive soils, areas subject to liquefaction, and other unstable soils.

### CALIFORNIA SEISMIC HAZARDS MAPPING ACT

The California Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

### ALQUIST-PRIOLO FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Sections 2621–2630) was passed by the California Legislature in 1972 to mitigate the hazard of surface faulting to structures. The main purpose of the act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. Local agencies must regulate most development in fault zones established by the State Geologist. Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

### ASBESTOS AIRBORNE TOXIC CONTROL MEASURE

The California Air Resources Board has promulgated an Asbestos Airborne Toxic Control Measure (AATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (California Code of Regulations Title 17, Section 93105). In accordance with Section 39666(d) of the California Health and Safety Code, the AATCM became enforceable by the air quality management districts (AQMDs) on November 19, 2002. In general, the AATCM specifies that an asbestos dust mitigation plan must include the following measures:

- measures for preventing vehicle track-out;
- measures for wetting or covering of active storage piles;
- controls for inactive disturbed areas and storage piles;
- control of traffic on on-site unpaved roads, parking lots, and staging areas;
- controls for earthmoving activities;
- control of off-site transport;
- post-construction stabilization measures;
- ambient air monitoring, if required by the air pollution control officer, and reporting of any results; and
- recordkeeping and reporting requirements.

## 5.3.2 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GRADING ORDINANCE

The grading and erosion prevention ordinance of Placer County, referred to herein as the County Grading Ordinance) (Article 15.48 of the County Code) regulates grading on property within the unincorporated areas of Placer County.

The County Grading Ordinance requires project applicants to obtain a grading permit depending on the amount of soil disturbance. In Placer County, any fill or excavation of greater than 250 cubic yards (equivalent to approximately 15 truck and transfers) or cuts or fills over 4 feet in depth requires a grading permit. As part of the

permit process, applicants must submit grading plans, a drainage report, and (where projects would disturb more than 1 acre of land) evidence of coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. A site-specific geotechnical report is also required in areas where any of the following conditions are present: cut-and-fill would exceed a depth of 10 feet; areas where expansive soils are present; or areas of known or suspected geological hazards, including landslide hazards and hazards of ground failure stemming from seismically-induced ground shaking.

### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for soils, geology, seismicity, and paleontological resources.

**GOAL 8.A:** To minimize the loss of life, injury, and property damage due to seismic and geological hazards.

- **Policy 8.A.1.** The County shall require the preparation of a soils engineering and geologic-seismic analysis prior to permitting development in areas prone to geological or seismic hazards (i.e., ground shaking, landslides, liquefaction, critically expansive soils, avalanche).
- **Policy 8.A.4.** The County shall ensure that areas of slope instability are adequately investigated and that any development in these areas incorporates appropriate design provisions to prevent landsliding.
- **Policy 8.A.5.** In landslide hazard areas, the County shall prohibit avoidable alteration of land in a manner that could increase the hazard, including concentration of water through drainage, irrigation, or septic systems; removal of vegetative cover; and steepening of slopes and undercutting the bases of slopes.
- **Policy 8.A.6.** The County shall require the preparation of drainage plans for development in hillside areas that direct runoff and drainage away from unstable slopes.
- **Policy 8.A.9.** The County shall require that the location and/or design of any new buildings, facilities, or other development in areas subject to earthquake activity minimize exposure to danger from fault rupture or creep.
- **Policy 8.A.10.** The County shall require that new structures permitted in areas of high liquefaction potential be sited, designed, and constructed to minimize the dangers from damage due to earthquake-induced liquefaction.
- **Policy 8.A.11.** The County shall limit development in areas of steep or unstable slopes to minimize hazards caused by landslides or liquefaction.

**GOAL 5.D:** To identify, protect, and enhance Placer County's important historical, archaeological, paleontological, and cultural sites and their contributing environment.

- **Policy 5.D.2.** The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.

- **Policy 5.D.6.** The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a Countywide cultural resource data base, to be maintained by the Division of Museums.

- **Policy 5.D.7.** The County shall require that discretionary development projects are designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.

# 5.4 IMPACTS

## 5.4.1 ANALYSIS METHODOLOGY

The focus of this analysis considers how the trail expansion areas would or would not change the conclusions of the prior environmental review. Evaluation of potential impacts on soils, geology, seismicity, and paleontology was based on a field review of the project area; review of geologic maps; and review of published and unpublished geologic and paleontologic literature. Impacts related to soils, geology, seismicity and paleontological resources that would result from implementation of the proposed project have been identified by comparing existing data and environmental information with proposed project features.

## 5.4.2 THRESHOLDS OF SIGNIFICANCE

### CEQA THRESHOLDS

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a significant impact related to soils, geology, seismicity, and mineral resources if it would:

- directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;

- be susceptible to strong seismic ground shaking;

- be susceptible to seismic-related ground failure, including liquefaction, landslides;

- result in substantial soil erosion or the loss of topsoil;

- be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;

- be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property;

- have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater; or
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### ISSUES NOT ANALYZED FURTHER

The proposed project would have no impact associated with the following issues, and these issues will not be analyzed further in this chapter:

- **Ground Failure/Liquefaction:** The project area is underlain by consolidated volcanic and metavolcanic rocks that are not susceptible to liquefaction. In addition, regional groundwater levels are expected to be greater than 50 feet in depth. Therefore, the potential for liquefaction is low.
- **Subsidence and Lateral Spreading:** The project area is underlain by consolidated volcanic and metavolcanic rocks that are not susceptible to liquefaction. In addition, regional groundwater levels are expected to be greater than 50 feet in depth. Therefore, the risk of subsidence and lateral spreading is low.
- **Expansive Soils:** The soils in the project area are underlain at shallow depth by bedrock. Thus, they have a low shrink-swell potential and are, therefore, not expansive.
- **Mineral Resources:** The proposed HFRP trail expansion will travel across land that is under conservation easement that restricts activity to a list of approved actions. Mining is not an approved use, the site is not in an area designates as valuable mineral area, and there are no active mines on the site.
- **Paleontological Resources:** The project-related work areas are underlain by Late Paleozoic and Mesozoic age volcanic and metavolanic rocks that are part of the Smartville Complex. Because of the way these rocks were formed, under conditions of high temperature and pressure underneath the earth's surface and/or ejected as magma from volcanic eruptions, they do not contain fossils. Therefore, project-related earthmoving activities would have no impact on unique paleontological resources.
- **Unique Geologic Features:** The project area contains unique geologic features such as scenic rock outcroppings, streams, waterfalls, and canyons that would form the backdrop to views along the proposed trail system. New trails would be designed to blend in with the surrounding scenery and would be sited to provide vistas of these geologic features for recreationists. The siting of overlooks would occur such that unique formations are avoided. New structures in the form of restrooms, and trailhead parking would not be located in areas that contain unique geologic features.

## 5.4.3 IMPACT ANALYSIS

| | |
|---|---|
| IMPACT 5-1 | Soils, Geology, and Seismicity—Construction- and Operation-Related Erosion Hazards. *Based on soil types and topography, the excavation and grading of soil could result in erosion during construction, particularly during periods of strong winds or storm events. In addition, use and maintenance of the project area could result in erosion over time. However preparing and implementing a SWPPP and Best Management Practices (BMPs)as part of a project-specific Central Valley Regional Water Quality Control Board (RWQCB) permit to reduce the amount of soil eroding and entering area waterways, would reduce to these potential impacts to* ***less-than-significant****.* |
| Significance | *Potentially Significant (No new significant impact relative to prior analysis in the 2010 Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S5-1: Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

Because of soil types in the park and park area topography, the potential for erosion was considered to be high. Earthwork such as the excavation and grading of soil during construction of parking lot, access driveway or improvements along Garden Bar Road and other related improvements could result in erosion. In addition, use of the trails and other park facilities will wear the surface material and maintenance related activity within the park could cause long-term erosion. Mitigation Measure 5-1 required the County to obtain authorization for construction and operation activities from the Central Valley Regional Water Quality Board and implement erosion and sediment control measures as required, including stormwater, construction, and post-development BMPs, to reduce the amount of soil eroding and entering area waterways. With the implementation of Mitigation Measure 5-1, the County found that impact of soil erosion would be reduced by the use of BMPs contained in the permit to **less than significant** levels.

### 2019 HFRP Trails Expansion Project Impact Analysis

Rock outcrop complexes located in the project area are characterized as having no erosion potential. However, the various soil types (i.e., Auburn, Argonaut, Boomer, Sobrante) in the project area are characterized as having slight to high erosion hazards. Grading activity requiring use of heavy equipment would occur at locations where new structures are planned, such as the parking lots, restrooms, bridges and overlooks. Construction of the proposed trail network would occur by use of small gas-powered machinery (i.e., SWECO Dozers) as well as hand tools including rakes, picks and shovels.

The topography of the access and parking areas exposed to grading and earthwork is relatively flat to gently rolling so disturbance in these areas are limited. The areas near Racoon Creek planned for improvement including bridges and overlooks would require more substantial excavations (Refer to Exhibits 5-3 through 5-6).

The Racoon Creek channel is very irregular and contains many boulders, overgrown banks, and steep vertical drops. Upstream of the bridge sites the channel is wide and shallow with slow moving water. The proposed bridge location along Racoon Creek is a narrow “pinch point” where the channel has been eroded to bedrock (Carlton Engineering 2012). Structures proposed in these locations must be constructed on foundations or bridge abutments designed to protect against scour and erosion and anchored into the bedrock. Refer to Section 11.0 “Hydrology” for more information.

The volume of earthwork required to implement the project is estimated in Table 5-1. All ground disturbing activities could result in localized erosion during construction by removing vegetative cover and exposing disturbed areas to wind and storm events. Sedimentation in Racoon Creek could impede beneficial uses and harm the water quality. Without implementation of measures to control erosion of soil would be potentially significant.

**Table 5-1. Soil Grading Amounts by Facility Type**

| Project Facility | Grading Activity | |
|---|---|---|
| | Soil Volume (Cubic Yards) | Permanent Footprint (Acreage) |
| **Road Improvements/On-Site Facilities** | | |
| Harvego Preserve Park Entry, Access Road, and Parking Areas[1] | 5,210 | 7.20 |
| Mears Road Parking Lot | 493 | 0.3 |
| Garden Bar 40 Park Entry, Access Road, and Parking Areas [2] | 5,965 | 1.4 |
| Twilight Ride Park Entry, Access Road, and Parking Areas [1] | 19,626 | 4.4 |
| Multi-Use Trails (Includes Bridges[3]/Overlooks) | - | 7.7 |
| **Total** | **31,294** | **21** |

Source: Helix 2019, AECOM

[1] Acreage includes parking access road, access road bridges/culverts, parking, helipad, water tank and septic system.

[2] Acreage Includes parking, water tank, septic system and new access road.

[3] For 2 new bridges across Raccoon Creek

Natural surface trails would be constructed using smaller equipment and hand tools except at the proposed bridge location where abutments would require excavation with larger machinery. Soil generated by full-bench trail excavation would be side cast below the location of excavation, eliminating the need for soil export. Soil would be directed away from tree trunks. Trail construction features would include grade reversals and out sloping, as well as BMPs to prevent erosion, such as preservation of existing vegetative buffer, rock-protected outfalls, and topical seeding/straw mulch application. Inclusion of these design features have been shown to be effective in erosion prevention and trail stability at the existing park.

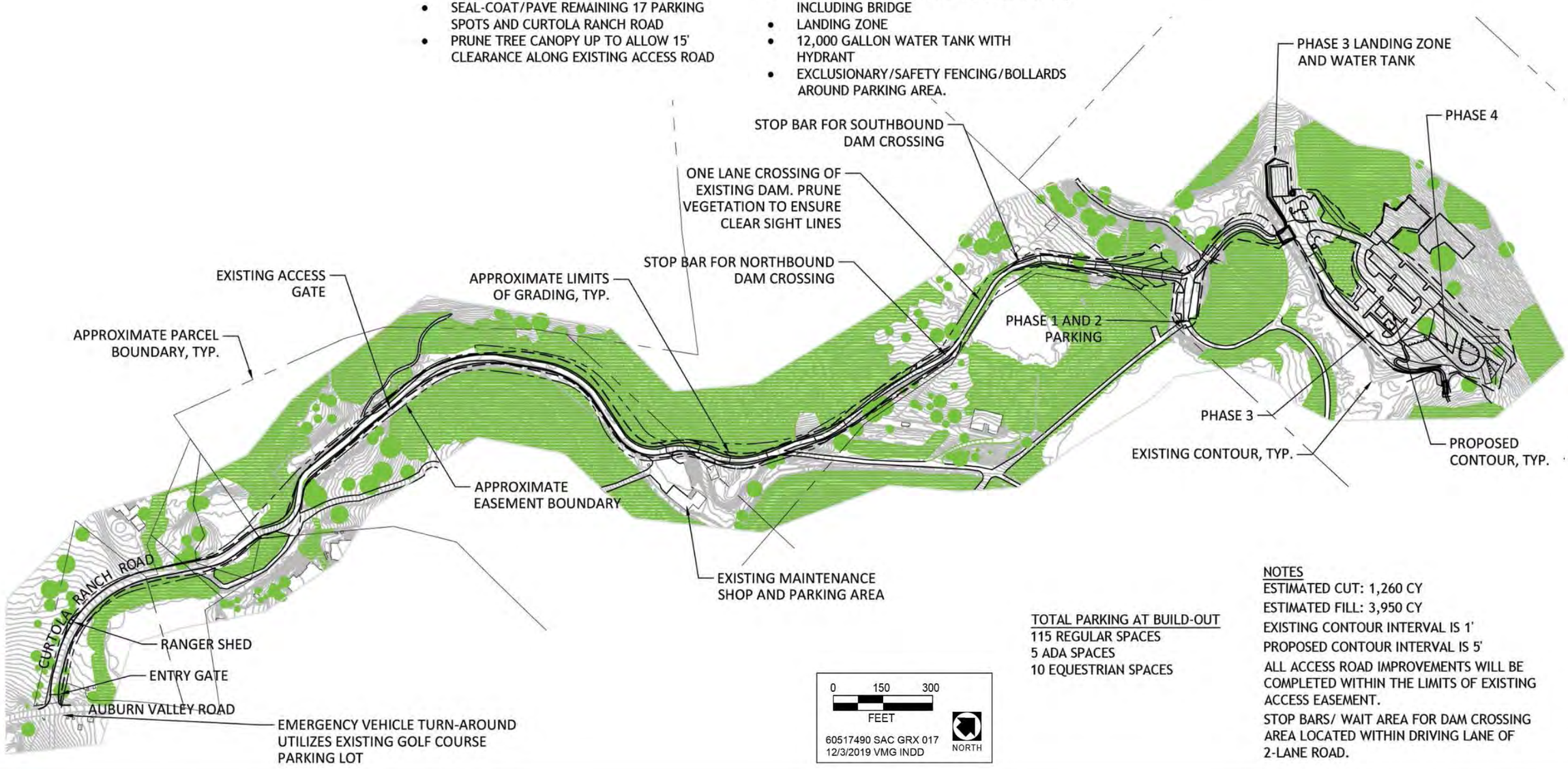
Long term maintenance is required to support improved structures and trail network. The proposed trail system would be maintained as a natural-surface trail system that would increase the amount of soil exposed to wind and water erosion, and use of the trails by hikers, bikers, and equestrians could cause some long-term erosion. Regular maintenance in the project area in areas of exposed soil could also cause erosion during operation of the park. Mitigation Measure S5-1would reduce construction- and operation-related erosion hazards resulting from park and project area implementation to **a less-than-significant** level.

PHASE 1 INCLUDES:
- 17 GRAVEL PARKING SPACES
- 1 PAVED ADA PARKING SPACE
- DOCENT-LED TOURS ONLY
- PORTA POTTY

PHASE 2 INCLUDES:
- ENTRY ROAD PULL-OUTS EVERY 300-600' WHERE FEASIBLE
- EXCLUSIONARY FENCING/BOLLARDS AND GATES ALONG CURTOLA RANCH ROAD AS NEEDED
- ENTRY GATE AND RANGER SHED
- SEAL-COAT/PAVE REMAINING 17 PARKING SPOTS AND CURTOLA RANCH ROAD
- PRUNE TREE CANOPY UP TO ALLOW 15' CLEARANCE ALONG EXISTING ACCESS ROAD

PHASE 3 INCLUDES:
- ENTRY ROAD WIDENING TO 20'
- 98 REGULAR PARKING SPACES
- 4 ADA PARKING SPACES
- RESTROOM, WELL, AND SEPTIC SYSTEM
- STREAM CROSSING (BRIDGE OR CULVERT)
- PEDESTRIAN CONNECTION TO TRAIL SYSTEM, INCLUDING BRIDGE
- LANDING ZONE
- 12,000 GALLON WATER TANK WITH HYDRANT
- EXCLUSIONARY/SAFETY FENCING/BOLLARDS AROUND PARKING AREA.

PHASE 4 INCLUDES:
- 10 EQUESTRIAN PARKING SPACES AND ASSOCIATED AMENITIES (HITCHING POSTS, WATERING TROUGHS, AND MOUNTING BLOCKS)




Source: Data provided by Helix and adopted by AECOM in December 2019

**Exhibit 5-3. Proposed Grading at Harvego Preserve Entry**

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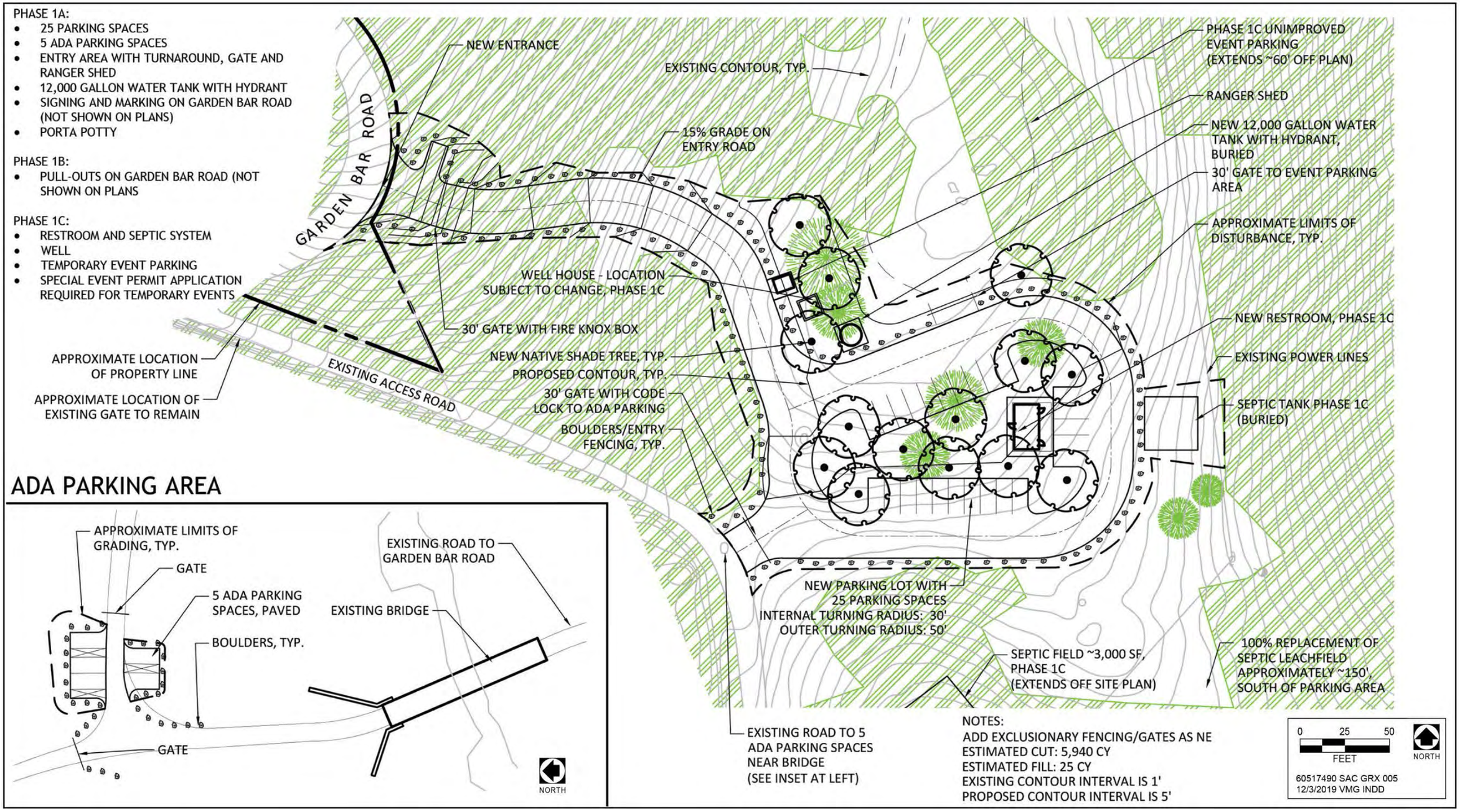


Source: Data provided by Foothill Associates and adopted by AECOM in December 2019

**Exhibit 5-4. Proposed Grading at Garden Bar Entry**

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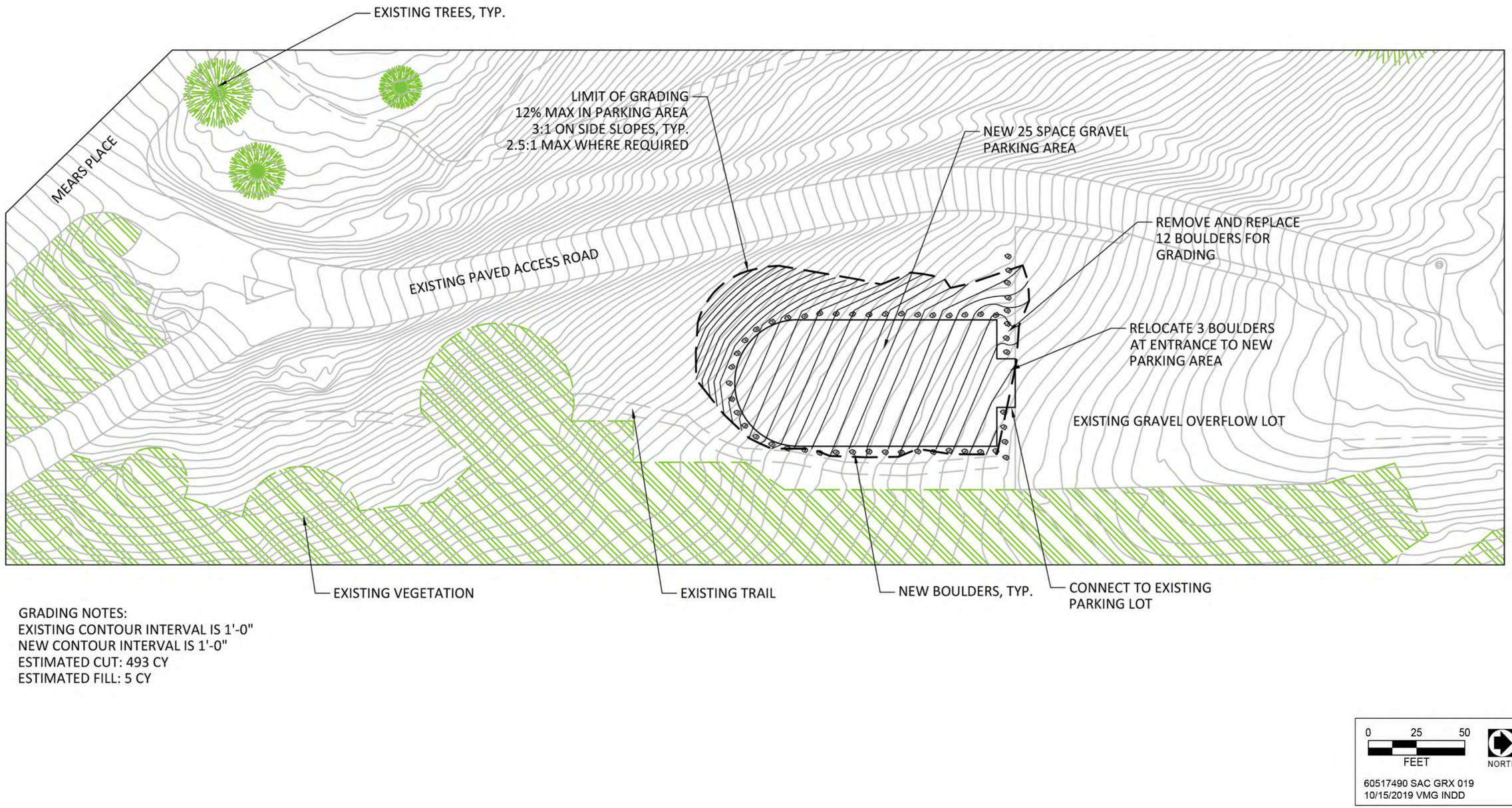


**Exhibit 5-5. Proposed Grading at Mears Lot Expansion**

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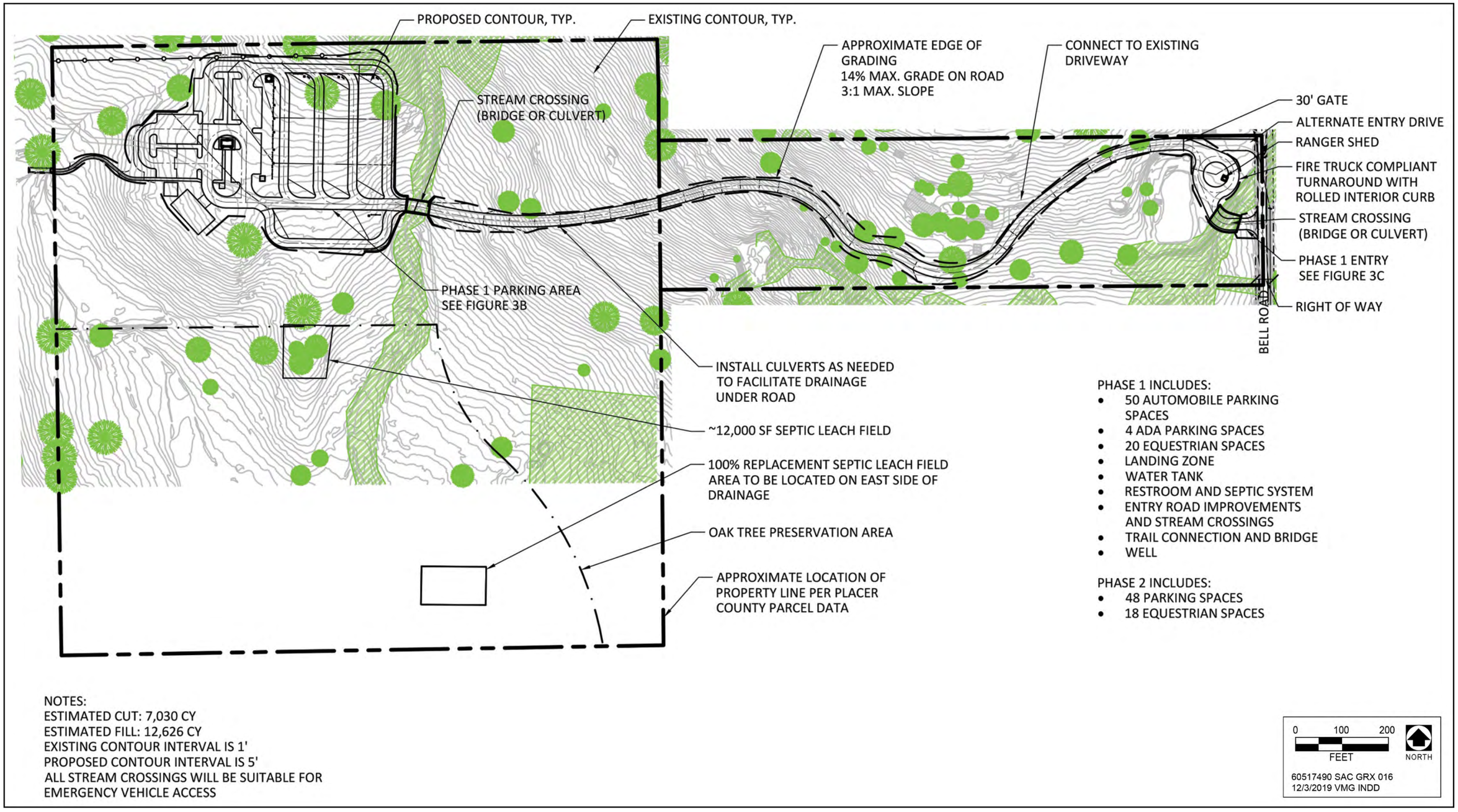


**Exhibit 5-6. Proposed Grading at Twilight Ride**

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The proposed expansion of the HFRP trails network would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 5-2 | Soils, Geology, and Seismicity—Risks to People from Naturally Occurring Asbestos. *Disturbance of naturally occurring asbestos fibers could create a health hazard. The proposed project is located in an area that is moderately likely to contain naturally occurring asbestos, and disturbance of soil during construction could expose workers to asbestos. However, implementation of on-site soil testing and preparation and implementation of an Asbestos Dust Control Plan, as needed, would reduce the impact to less than significant.* |
| Significance | *Potentially Significant (No new significant impact relative to prior analysis in the 2010 Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 9-1 in Chapter 9.0, "Air Quality": Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 Certified HFRP EIR disclosed that the boundary of the "proposed park" was located in an area identified as moderately likely to contain naturally occurring asbestos and of faulting or shearing rock that may locally increase the relative likelihood of the presence of naturally occurring asbestos. Construction activities that involve soil disturbance (e.g., grading, excavation) for new facilities and structures (e.g., roadways, trails, restrooms, bridges and overlooks) could expose workers to increased health risks from inhaling dust that contains asbestos. For this reason, the 2010 HFRP EIR found the impact to be potentially significant. Although park construction could expose workers to asbestos, implementing Mitigation Measure 9-1 (see Chapter 9.0, "Air Quality") to conduct soil testing and implement an asbestos dust control plan, if needed, was found to reduce the impact to **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

The alignment of trails under the HFRP Trails Expansion Project travels through land identified as moderately likely to contain naturally occurring asbestos because of the types of metamorphic and igneous rocks that are present. The most likely settings for naturally occurring asbestos in these areas are in fault zones and shear zones that contain slivers of serpentinite and/or talc-chlorite schists. Small sheets and slivers of serpentinite too small to show on geologic maps (some of them less than 1 foot thick) are widely distributed in shear zones in the Sierra Nevada foothills. Also according to DOC, the project area is located in an area of faulting or shearing rock that may locally increase the relative likelihood of the presence of naturally occurring asbestos (DOC 2006).

Soil disturbance during construction activities (e.g., grading, excavation) for new facilities and structures (e.g., roadways, trails, restrooms, bridges, overlooks, access and parking areas) could expose workers and nearby recreationists to increased health risks from inhaling dust that contains asbestos. The potential to impact human health from exposure to asbestos material is potentially significant. Application of Mitigation Measure 9-1 would

reduce risks to people from naturally occurring asbestos resulting from HFRP and the trails expansion project area implementation to a **less-than-significant** level.

The proposed HFRP trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects of risks to people from naturally occurring asbestos based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 5-3 | Soils, Geology, and Seismicity—Risks to People and Structures Caused by Strong Seismic Ground Shaking or Fault Rupture. *The potentially active Deadman Fault (part of the Bear Mountains Fault Zone) crosses the eastern portion of the expansion project area. Although all park and expansion project facilities would be designed and constructed in accordance with the current design requirements for the California Building Standards Code (CBC) and the park and project area is not located in an Alquist-Priolo Earthquake Fault Zone, the project could construct buildings or structures across a known fault.* |
| Significance | *Potentially Significant (No new significant impact relative to prior analysis in the 2010 Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S5-2: Obtain and Implement Seismic Engineering Design Recommendations* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP Certified EIR indicated the project could potentially construct or renovate buildings or structures (e.g., caretaker residence) across an active fault trace or within 50 feet of such a trace (i.e., Bear Mountain fault). The 2010 HFRP EIR noted that USGS states the fault as having "been active in the last 2 million years and is thought to pose a measurable hazard." Because the Bear Mountain fault was identified as being "active," the 2010 HFRP Certified EIR indicated the potential for surface rupture to occur. Despite assuming compliance with all design and construction recommendations, and that the proposed park site was not crossed by an Alquist-Priolo Earthquake Fault Zone (PCWA 2007), the County determined the HFRP project could create a substantial increased risk of injury or property damage from strong seismic ground shaking and/or fault rupture. This potential risk was avoided with application of Mitigation Measure 5-2 requiring the County to obtain engineered studies and implement seismic engineering design recommendations. This reduced the potentially significant impact to **less than significant.**

### 2019 HFRP Trails Expansion Project Impact Analysis

As described above, the Deadman Fault (part of the Bear Mountains Fault Zone) has shown evidence of activity in the last 700,000 years and therefore is considered potentially active. Based on the *2010 California Fault Activity Map* (Jennings and Bryant 2010), the Deadman Fault appears to cross through the eastern portion of the HFRP trails expansion project area. Although the exact location of the fault line is not known, buildings on-site would be used for human occupancy (e.g., restrooms).

The project would increase human activity and presence in the area by developing new access, parking and trail expansion areas and would include structures such as new restrooms, bridges, overlooks and buildings on-site at the locations depicted earlier in Exhibit 3-4 "Trail Expansion Area, Access and Bridges with Overlooks." Based on the most recent mapping available, the potential exists for new buildings or structures to be located across a fault trace or within 50 feet of such a trace (i.e., Deadman Fault in the Bear Mountains Fault Zone). Although all project-related facilities and structures would be designed and constructed in accordance with the current design requirements for the CBC and the project area is not located in an Alquist-Priolo Earthquake Fault Zone (CGS 2017), the project could construct buildings and/or structures across a known fault trace. Because the project could create a substantial increased risk of injury or property damage from strong seismic ground shaking and/or fault rupture, this impact could be potentially significant. Implementation of Mitigation Measure S5-2 would reduce the impact to a **less-than-significant** level.

The proposed expansion of the HFRP trails system would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to risks to people and structures caused by strong seismic ground shaking or fault rupture based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 5-4 | Soils, Geology, and Seismicity—Risks to People and Structures Caused by Landslides. *Although stable slope conditions and drainage patterns may change with site alterations (e.g., cuts, fills) associated with construction of recreation facilities in the park and expansion project area, the project area does not contain areas of shallow slope instability and/or small landslide areas. Therefore, the risk of a landslide is considered low.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

In the 2010 Certified EIR, the HFRP site was described as containing steep slopes along Raccoon Creek and along smaller valleys and gullies located in other currently inaccessible portions of the proposed park. Construction of new trails and bridges across Raccoon Creek and road improvements along Garden Bar Road (i.e., widening) would require grading to create a level foundation for lying new pavement and potentially excavation of existing pavement. The 2010 HFRP indicated soils were well-drained, and field review of land along Garden Bar Road identified no areas of shallow slope instability or small landslide areas. Because construction on steep slopes was to be avoided and no areas of shallow slope instability were identified, this impact was determined to be **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

Construction activities could affect steep slopes within the project area as a result of constructing new bridges, overlooks, roadways, or trails and currently stable conditions could be changed by slope alterations (e.g., cuts, fills). Slope alterations required to construct new facilities or structures could also result in removing existing ground vegetation that could be needed to stabilize steep slopes.

The location of parking lots, restrooms, picnic areas, and water tanks are to be sited where the topography is relatively flat to gently rolling with little potential for slope instability. Trail alignment, bridge location, and placement of overlooks would be subject to micro siting during final design in order to avoid sensitive natural resources and to provide sustainable trail design, while also providing opportunities to view the landscape from carefully sited overlooks. Placement of all structures is subject to revision during final design in the field. Soils in the project area are well-drained, and field review identified no areas of shallow slope instability or small landslide areas.

However, trails must cross the Racoon Creek channel, which is very irregular and contains many boulders, overgrown banks, and steep vertical drops which possess the potential for soil instability and limit opportunities for crossing. Two bridges are proposed across Raccoon Creek at locations where preliminary study suggests the abutments can be supported on existing rock. Based on the high compressive strengths of the rock, and assuming all recommendations of the Geotechnical Engineering Study are adhered to, the proposed bridges would not be subject to hazards from slope instability (Carlton Engineering 2012).

Because the trail alignment would be routed in a manner to provide physical and ecological sustainability, and the proposed parking lots and entry improvements are planned in areas that are relatively flat, and no areas of shallow slope instability are known to occur, the project would not result in exposure of structures or people to landslides. This impact would be **less than significant**.

The proposed expansion of the HFRP would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects of risks to people and structures caused by landslides based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 5-5 | Soils, Geology, and Seismicity—Limited Ability for Soils to Support Operation of a Wastewater Disposal System. On-site soil testing conducted in 2019 at the trail expansion parking areas has confirmed soils capable of supporting engineered septic systems. The park and expansion project would comply with Central Valley RWQCB and County Department of Environmental Health regulations which would ensure that on-site systems are properly engineered and designed to suit the on-site soil conditions. Therefore, this impact would be less than significant. |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP Certified EIR evaluated impacts of septic systems to dispose of effluent generated by on-site restroom facilities and visitor structures (e.g., nature center, caretaker facility). Soil testing conducted as part of the original evaluation determined soils in the western portion of the park could support a septic system sized to accommodate maximum permitted daily use. Because soils were found to be capable of accommodating a septic system designed to meet Central Valley RWQCB and Placer County Environmental Health Division standards, the conclusion was that impacts associated with operation of a septic system would be **less than significant.**

### 2019 HFRP Trails Expansion Project Impact Analysis

The trails expansion project would include the construction and operation of septic systems to dispose of effluent generated by on-site restroom facilities proposed for the Twilight Ride, Harvego Preserve and Garden Bar 40 entries.

Septic systems in Placer County are regulated under the Local Agency Management Program (LAMP) for Placer County, adopted by the Central Valley RWQCB (Order No. R5-2017-0048) in 2017. The entire project site is subject to LAMP regulations regarding septic systems that are enforced by the Placer County Department of Environmental Health (DEH). Before a septic system can be installed, County regulations require that the applicant obtain a septic system permit from DEH. During the application process, DEH consults with applicants to determine the specific requirements at the project site prior to issuance of a permit, which would include a percolation test conducted by a registered qualified consultant. For this project, DEH would also require the use of engineered systems based upon the soils testing.

Soil mantel and percolation testing conducted in 2019 at each of the proposed parking areas found appropriate areas suitable for a pretreatment septic system. Drip field calculations conducted for each new entry determined the amount of area required to treat the waste. This evaluation was based on the projected maximum number of visitors at each location, and assumed average sewage flows of 5 gallons/visitor consistent with Table 2 of the Placer County On-Site Sewage Manual. The analysis determined enough space was available at each proposed entry to accommodate maximum sewage flows (Lindbloom 2019).Until such time as permanent toilets are constructed, portable toilets would be made available.

The proposed HFRP trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to operation of wastewater disposal systems based on changes in the project, circumstances, or new information.

## 5.5 MITIGATION MEASURES

Mitigation Measure S5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.

A. Implement Stormwater BMPs.

Water quality treatment facilities/Best Management Practices (BMPs) shall be designed according to the guidance of the California Stormwater Quality Association Stormwater Best Management

Practice Handbooks for Construction, for New Development / Redevelopment (2015), and for Industrial and Commercial (or other similar source as approved by the County).

Storm drainage from on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, filters, etc. for entrapment of sediment, debris and oils/greases or other identified pollutants, as approved by the County. BMPs shall be designed in accordance with the West Placer Storm Water Quality Design Manual for sizing of permanent post-construction Best Management Practices for stormwater quality protection. No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by appropriate regulatory authorities.

All permanent BMPs shall be maintained as required to ensure effectiveness.

B. Obtain RWQCB Permit and Implement Construction BMPs.

Prior to any construction commencing on projects with ground disturbance exceeding 1 acre, the applicant shall provide evidence of a WDID number generated from the State Regional Water Quality Control Board's Stormwater Multiple Application & Reports Tracking System (SMARTS). This serves as the Regional Water Quality Control Board approval or permit under the National Pollutant Discharge Elimination System (NPDES) construction storm water quality permit.

BMPs shall be designed to ensure that pollutants contained in project-related storm water discharges are reduced to the maximum extent practicable and that non-storm water discharges are prevented from leaving the site, both during and after construction, as required by Placer County's Stormwater Quality Ordinance.

Construction (temporary) BMPs for the project include, but are not limited to:

- Use temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils;
- Store materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water;
- Use water for dust control;
- Construct sediment control basins;
- Regular sweeping of entry and exit areas to minimize off-site sediment transport;
- Install traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and
- Use barriers, such as straw bales, perimeter silt fences, or placement of hay bales, to minimize the amount of uncontrolled runoff that could enter drains or surface water.

C. Implement Post-Development BMPs.

Post-development (permanent) BMPs for the project include, but are not limited to:

- The project will have an effective system of erosion and sedimentation control, consisting of vegetative and structural measures and management practices, to reduce the damage of erosion and costly clean-up procedures.
- Following trail construction, wattles/fiber rolls and/or gravel-filled bags will remain in place until permanent stabilization measures have proven successful.
- For the duration of the project, storm drainage within ditch systems associated with switchback construction will have stabilized ditch protection. This will consist of filter fabric, mulch, or a 3-inch gravel base.
- Plan development to fit the particular topography, soils, waterways, and natural vegetation of the site, to avoid the creation of erosion problems on the site.
- Reduce erosion hazards and runoff volumes and velocity by limiting the length and steepness of slopes. Slopes subject to erosion should not be steeper than 2:1 horizontal to vertical.
- Break up long steep slopes by benching, terracing, or diversion structures.
- Use existing vegetation to control erosion to (a) shield the soil surface from rain, (b) increase infiltration, (c) reduce velocity of runoff and (d) hold soil in place and act as a filter.
- Time the project so that grading and construction occur during the normal dry season to the extent feasible.
- The County shall also consult with the RWQCB to acquire the appropriate regulatory approvals that may be necessary to obtain Section 401 water quality certification.

Mitigation Measure S5-2: Obtain and Implement Seismic Engineering Design Recommendations.

a. Prior to issuance of grading permits, the applicant shall obtain the services of a qualified, licensed geotechnical engineer to examine for traces of any relevant fault zone within the project area, and develop engineering design recommendations for the project area. The recommendations shall include calculation of seismic shaking hazards using the appropriate computer modeling software, and shall include specific structural design recommendations to minimize potential damage to buildings and structures from seismic events. The recommendations shall also include an examination of the traces of the Bear Mountain fault system within the project area, including surface reconnaissance, and shall make recommendations for building foundation and infrastructure design accordingly. All appropriate design recommendations shall be implemented during the project design and construction phases.

b. No structures intended for human occupancy shall be constructed within a 100-foot-wide no building zone over the Bear Mountain fault traces. However, following completion of the seismic study required in (a) above, the no building zone may be modified if recommended by the geotechnical engineer.

c. Prior to issuance of grading permits, the applicant shall obtain the services of a qualified, licensed geotechnical engineer to prepare a comprehensive final geotechnical report for the entire project area with specific design recommendations sufficient to ensure the safety of soil conditions, project structures, and site occupants. The report shall include project design and construction recommendations to address:

- Site preparation and grading, including surface and subsurface prep work, engineered fill materials, fill placement and compaction, trench backfill, erosion/winterization, slope stability, and surface drainage;
- Foundation requirements specific to the location of each component of the proposed project;
- Concrete slabs-on-grade, both interior and exterior;
- Retaining and below grade walls; and
- Road, pavement, and parking area design.
- The seismic engineering design recommendations shall be incorporated into the project design. Adequate field inspection shall occur during construction.

  It is the responsibility of the applicant to provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the report.

# 6.0 CULTURAL AND TRIBAL CULTURAL RESOURCES

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) cultural resources findings; describes the HFRP (park) and proposed trail network expansion project area (project area) environmental setting and pertinent regulations; evaluates project-related impacts associated with cultural and tribal cultural resources; and provides mitigation measures as necessary to reduce those impacts.

## 6.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 CERTIFIED EIR

As discussed in Section 1.2, this SEIR will consider the impacts of the HFRP Trails Expansion Project and compare it against the analysis contained in the 2010 HFRP certified EIR. The purpose is to determine whether the Trail Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, result in a new impact not previously identified, or require application of mitigation measures that were previously found infeasible, and were therefore not adopted for the prior project, are currently feasible and should be incorporated into project approvals.

### 6.1.1 FINDINGS OF FACT

The following is a summary of the 2010 HFRP certified EIR findings.

- Nine potentially significant cultural resources and one significant cultural resource were documented within the Spears Ranch portion of the park. Although the analysis found implementation of the park project had the potential to damage or destroy these cultural resources, either directly by construction or by increased public use, the project plans were modified to avoid significant cultural resources and the resources have been and continue to be monitored for indirect effects, and thus reduced the potentially significant impact to **less than significant**.

- The park project vicinity was known to contain numerous historic and prehistoric resources, and buried traces of historic-era activity and early Native American occupation that remain undocumented and may have been present within and in the vicinity of proposed trails. Although ground-disturbing activities during construction of trails and park facilities had the potential to disturb undiscovered cultural resources, implementing measures were in place to protect previously unknown cultural resources which reduced the potentially significant impact to **less than significant**.

- No evidence of human interments was found. However, ground-disturbing activities during construction of trails and other park facilities had the potential to uncover human interments, therefore if potentially damaging construction work resulted in their discovery it would cease until appropriate actions were taken to protect cultural resources, which reduced the potentially significant impact to **less than significant**.

### 6.1.2 HFRP MITIGATION MEASURES ADOPTED BY THE COUNTY IN 2010

Implementation of the following mitigation measures, which were adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on cultural resources to less than significant.

- **Mitigation Measure 6-1:** Modify Project Plans to Avoid Potentially Significant Cultural Resources and Actively Monitor Resources for Indirect Effects *(applies to Impact 6-1)*

- **Mitigation Measure 6-2:** Protect Previously Unknown Cultural Resources *(applies to Impact 6-2)*
- **Mitigation Measure 6-3:** Stop Potentially Damaging Work if Human Remains are Uncovered during Construction *(applies to Impact 6-3)*

## 6.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The setting of the Subsequent EIR describes the physical environmental conditions of the proposed HFRP trails expansion areas. See Chapter 6.0 "Cultural Resources" of the HFRP EIR for information about the existing park.

An abundance of natural resources and varied topography made the Sierra Nevada foothills, including the project area, an attractive location for prehistoric land uses and historic-era settlement. Although best known as the placer mining area that played a pivotal role in the Gold Rush of the late 1840s and the 1850s, early Native American sites can be found throughout the region as well, especially along perennial drainages such as Raccoon Creek.

### 6.2.1 PREHISTORIC ARCHAEOLOGICAL CONTEXT

Archaeological research within the Sierra Nevada and lower foothill regions over the past several decades has resulted in a substantial amount of new information about prehistory. Researchers have proposed numerous cultural systems and related chronologies in an attempt to trace cultural and technological change through time.

For the Sacramento Valley and foothill regions, Lillard and Purves (1936) recognized a three-part cultural sequence (Early, Middle, and Late Horizons) that was derived from archaeological analysis of midden and cemetery sites in Central California. This scheme was later described in more detail by Lillard, Heizer, and Fenenga (1939) and was refined by Beardsley (1948, 1954). In an attempt to unify the various hypothesized cultural periods in California, Fredrickson (1973, 1974, 1993) proposed an all-encompassing scheme for cultural development, while acknowledging that these general trends may manifest themselves differently and that there may be some variation between subregions. These general cultural periods (Paleo-Indian, Early, Middle and Late Archaic, and Emergent) are used here in connection with the chronology of prehistoric culture in the north-central Sierra Nevada, given the proximity of the project area to the Sacramento Valley.

Relevant to the project area is the document *Framework for Archaeological Research and Management: National Forests of the North-Central Sierra Nevada* (Jackson et al. 1994), which proposes a tentative cultural chronology and cultural history for the north-central Sierra Nevada. The proposed cultural chronology has been further refined through investigations conducted along the South Fork American River by Tremaine and Jackson (1994, 1995), and Boyd (1998), and has been synthesized by Jackson and Ballard (1999). This extensive analysis provides the most recent and relevant cultural/technological chronology for the project area, and forms the basis for the following discussion.

#### LATE PLEISTOCENE PERIOD

Archaeological sites dating to the earliest human occupation in the Sierra Nevada foothills and eastern Sacramento Valley (more than 10,000 years B.P. [before present]) have rarely been encountered. Possible exceptions are CA-SAC-370 and CA-SAC-379, located near Rancho Murieta (approximately 30 miles south-southeast of the project area). They produced numerous bifaces, cores, and raw materials (which may be

indicative of prehistoric quarrying operations) from gravel strata estimated to be 12,000–18,000 years old (Moratto 1984).

### EARLY HOLOCENE PERIOD

Jackson and Ballard (1999) use the all-encompassing Western Pluvial Lakes Tradition to describe this broad time frame (ca. 10,000–7000 B.P.). As they point out, this period was first defined by Bedwell (1970) as a human adaptation to lake, marsh, and grassland environments that were prevalent around 11,000 B.P.; however, the tradition slowly disappeared ca. 8000–7000 B.P.

In the surrounding regions in California, only small isolated locales (e.g., CA-CAL-S342 [Peak and Crew 1990] and CA-CAL-629 and CA-CAL-630 [under analysis by California State University, Fresno]) have thus far yielded substantial data indicating a presence by peoples along the western front of the Sierra Nevada before 7000 B.P., and both of these have been in the foothill regions to the south of the project area.

### ARCHAIC PERIOD

Characterized by generally warm and dry climatic conditions and interrupted by brief cool, wet conditions, this period (ca. 7000–3200 B.P.) appears to correspond with the appearance of handstones and milling slabs, suggesting that people were gathering and using more vegetal resources, such as seeds and other botanical constituents. Jackson and Ballard (1999) also suggest that the early part of this period (7000–4500 B.P.) can be defined by the presence of concave-base and side-notched obsidian bifaces on archaeological sites. Stemmed and large corner-notched obsidian projectile points occur during latter part of this period (4500–3200 B.P.).

Sites in the Central Valley also indicate that a great deal of trade was taking place at this time, as evidenced by the presence of obsidian from outside the area, *Haliotis* and *Olivella* shell beads and ornaments, quartz crystals, and other exotic materials (Heizer 1949, 1974; Moratto 1984). Connections between the Great Basin and Central Valley appear to have been established at least by 4000 B.P., and possibly as early as 7000 B.P., as evidenced by the exchange of marine shell beads and other artifacts for obsidian from the east side of the Sierra Nevada crest. Although this was primarily a phenomenon of the Sacramento Valley and lower foothills, similar culture elements are found at elevations up to 3,000 feet, in the foothills of the west slope, suggesting that peoples of this time frame may have acted as “middlemen” within this trade network (Bennyhoff and Heizer 1958, Bennyhoff and Hughes 1983).

### EARLY SIERRAN PERIOD

This period (ca. 3200–1400 B.P.) is marked by the abundant presence of milling slabs and handstones, a substantial increase in the production of obsidian tools, and a climatic shift to a cool, wet regime. Small social and residential groups moved within the area in response to the presence of resources, exploiting resources within range of each archaeological site. Ritter noted that evidence at CA-PLA-101, located near Auburn, indicates that this was a period of seasonal occupation and land use with similarities in artifact types (i.e., projectile points) found in contexts east of the Sierra Nevada crest, but that this similarity decreases below 2,500 feet in elevation, (Ritter 1971), which would include the current project area.

### MIDDLE SIERRAN PERIOD

This period (ca. 1400–600 B.P.) corresponds with a dramatic decrease in the use of obsidian, not only in the subregion, but throughout the Sierra Nevada (Hall 1983, Bouey and Basgall 1984). During this time there is also a major improvement associated with the introduction of bow and arrow technology. Widespread changes occur at similar time frames throughout central California and the western Great Basin. Social disruption is inferred from changes in artifact assemblages and land use patterns and a high incidence of violent death. This pattern is followed by relatively intensive land use, active trade, and the establishment of permanent settlements in some regions, inferred as reflecting increased populations (Jackson and Ballard 1999).

### LATE SIERRAN PERIOD

Regionally, this period (ca. 600–150 B.P.) is characterized by continued intensive use of the western slope of the Sierra Nevada, including significant use of acorns, but with less of a focus on seeds; exploitation of fauna, including deer and rabbits; year-round occupation of sites below 3,500 feet; and short-term seasonal occupation of mid- to high-elevation Sierra Nevada sites. The presence of single-component sites dating to this time period is given as evidence for this intensified use (Jackson and Ballard 1999). In some subregions, the use of the small points with contracting stems disappears abruptly and is replaced by small Desert Side–notched types, with the continued use of small corner-notched points. However, Jackson and Ballard (1999) suggest the possible reemergence of large corner-notched, stemmed, and contracting stemmed points during the latter portion of this period.

## 6.2.2 ETHNOGRAPHIC CONTEXT

Ethnographically, the project area is situated within the Nisenan (sometimes referred to as Southern Maidu) sphere of influence. A brief review of the ethnographic literature follows and is of value in assessing the archaeological sites that are the static remains of past activity. However, archaeological data have the potential to reconstruct patterns of former dynamic cultural systems (Binford 1980). It is through the use of ethnographic data applied to archaeology that an archaeologist has the best chance to recreate past cultural adaptations (Binford 1980).

Kroeber (1925) recognized three Nisenan dialects: Northern Hill, Southern Hill, and Valley. The Nisenan territory included the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River, extending from the crest of the Sierra Nevada to the banks of the Sacramento River. According to Bennyhoff (1961), the southern boundary with the Miwok was probably a few miles south of the American River, bordering a shared area used by both Miwok and Nisenan groups that extended to the Cosumnes River. It appears that while the foothill Nisenan had distrust for the valley peoples, the relationship between the Nisenan and the Washoe to the east was primarily friendly. Elders recall intergroup marriage and trade, primarily involving the exchange of acorns for fish procured by the Washoe (Wilson 1972).

Native American groups would have utilized any number of faunal and floral resources. However, as in many foothill and valley regions throughout California, various species of oak provided the most important staple food, although the black oak (*Quercus kelloggi*) was apparently the most preferred (Matson 1972). Early-fall acorn harvests provided the region's native inhabitants with a reliable, large-scale food source that could sustain populations through the winter months. Other important floral foodstuffs capable of being stored for long periods

included nuts from the gray pine (*Pinus sabiniana*) and buckeye (*Aesculus californica*), as well as hazelnuts (*Corylus rostrata*).

Native Americans used numerous techniques and weapons for hunting, including the bow and arrow, drives, and decoys. Nets, traps, rodent hooks, and fire were all used in hunting small game. Fish could be caught with nets, gorges, hooks, and harpoons within the larger perennial drainages of the foothill regions. One technique apparently involved using soap root and turkey mullein to poison the water so that fish could be gathered easily. Freshwater clams and mussels were also gathered in the larger waterways, such as the American River. Other aquatic food sources available to native populations near the project area would have included fish such as salmon and sturgeon, which would have been netted or caught with the aid of weirs.

### 6.2.3 HISTORICAL CONTEXT

#### EXPLORATION AND EARLY IMMIGRANT ROUTES

The Sierra Nevada foothills and the Sacramento Valley were virtually unsettled by Europeans other than early Spanish explorers before the Gold Rush. In 1844 the Stevens-Townsend-Murphy Party entered California via Donner Pass, passing along the divide just north of the North Fork American River near Auburn (Egan 1977 in Jackson et al. 1982). John Fremont traversed this same route a year later. However, this route was not the first to be used by immigrant groups immigrating to California. The first was the Bidwell-Bartelson Party, which crossed into Tuolumne County in 1841 and was followed by others who were using the Pit River route to the north.

#### GOLD RUSH ERA

A wave of gold seekers descended on California, and specifically the foothill and mountain regions of the Sierra Nevada, after gold was discovered at Coloma on the South Fork American River in January 1848. The 1850 U.S. Census, while most likely biased against minority groups that tend to be underrepresented, put the population of Placer County at 11,417. This total consisted of 6,945 whites, 3,019 Chinese, 89 blacks, 634 other foreign races, and 730 Native Americans (U.S. Census 1850).

#### PROGRESSION OF MINING TECHNOLOGY

To interpret the remains of mining operations found within the project area, it is necessary to look at the progression of mining practices in the region in the context of the gold-bearing deposits, the progression of mining technology, and the application of capital. Restrained by technology and capital, gold production, like other mining operations, has gone through periods of boom and bust. Initially, during the late 1840s, gold deposits were easily accessed, and technology and capital outlay was limited to a pan, pick, and shovel. With this technology, mining was at first concentrated on productive gravel and sand-bar deposits located along perennial drainages.

Other than the simple pick, pan, and shovel methods used in the earliest days of the Gold Rush, with only a small amount of additional capital, an increased amount of gravel could be processed using a rocker—a rectangular box, about 4 feet long and mounted on rockers, that sorted gravel and collected gold in riffles located at the bottom. Use of this device resulted in the formation of cooperatives in which claims could be worked by small groups, with one person digging gravel, another loading the gravel into the rocker, and a third pouring water into the device to wash the gravel deposits. Although Euro-American miners who favored more technologically advanced

methods abandoned these devices by the mid-1850s, rockers continued to be used by the Chinese into the 1900s (Williams 1930 in Maniery 1992).

Two other devices used by early placer miners were the “Long Tom,” which became common by around 1850, and its variant, the longer sluice box, which came into use by 1851. Both required a constant flow of water from one end while dirt was shoveled in from the sides and gold was trapped in riffles at the bottom of the apparatus. Because a larger amount of dirt and gravel could be processed, larger groups operated these extraction devices (Kelly and McAleer 1986, Williams 1930 in Maniery 1992).

Both of these methods required large amounts of water, but ground sluicing required even greater amounts. This technique consisted of washing gold-bearing gravels over exposed bedrock. Parallel rows of stacked stones at acute angles are commonly found at ground sluicing sites. Because of this patterning, some have suggested that they are associated with Chinese mining operations. However several studies at mining sites with both Chinese and Euro-American miners have found no correlation with ethnicity (Johnson and Theodoratus 1984a, 1984b; Lindstrom 1988; Kelly and McAleer 1986; LaLande 1981, 1983a, 1983b, 1985; Ritchie 1981; Steeves 1984; Tordoff and Seldner 1987 in Maniery 1992). At first these methods were used to mine the easily accessed placer deposits along the rivers and streams, and as these gave out, attention turned to the Eocene and Tertiary gravels situated on the slopes and ridges surrounding drainages.

The next technological event to affect how gold was extracted was the advent of hydraulic mining. The development of this method is attributed to Anthony Chabot and Edward Matteson, who were the first to use hydraulic mining at Buckeye Hill and American Hill near Nevada City. At first, low-pressure canvas hoses and nozzles were used. However, these were rapidly replaced by iron pipe and improved nozzles, allowing water to be diverted under much greater pressure. Although there is no mention of hydraulic mining within the project area, this method was employed farther east at Hayden Hill and Green Valley. Millions of tons of silt and sand washed into streams and rivers as a result of these operations, clogging drainages from the foothills to San Francisco Bay. As a response to numerous lawsuits, an injunction was imposed against the industry in 1884, and the Caminetti Act authorized the U.S. Army Corps of Engineers (USACE) to oversee hydraulic mining operations.

### LOCAL MINING EXPRESSIONS

Mining sites consist of concentrations of artifacts and features that reflect the plethora of operations and technologies that have been used in the area. These cycles of occupation and abandonment create layers or components of mining technology and systems that are horizontally stratified, often altering or obliterating previous operations, and that can often be viewed as discontinuous with underground structure (Hardesty 1988). Many times only fragments of technologies and operations are visible. For example, Lindstrom (1989) found that finer sediments were carried away during the washing process of placer mining operations, and only larger cobbles or boulders remained at the processing site.

Mining camps were ubiquitous in mid-19th century Placer County. Some of the known camps—Dutch Flat, Horseshoe Bar, Smith’s Bar, and Iowa Hill—were farther upslope along the American River than the project vicinity. Two camps in the project vicinity are Gold Hill and Virginiatown, along Auburn Ravine approximately 5 miles south of the project area. Gold Hill, which was in the Ophir Mining District, was organized as a town in 1852. The community had a sizable population, as indicated by the 444 votes cast in the presidential election of that year (Hoover 1990). Virginiatown was founded in June 1851. The first railroad in California was built in 1852 by Captain John Brislow and was used to carry ore to Auburn Ravine (Hoover 1990, Gudde 1975).

The town boasted a population of more than 2,000 by 1858, and a post office named Virginia was located there between 1858 and 1860. The county directory indicated that a lack of water prevented development until a ditch could be built from the Bear River in 1861. It was at Virginiatown that Philip Armour had his butcher shop, which is said to have been the nucleus of the great Armour meat packing business in Chicago (Gudde 1975). Another town, Whiskey Diggins southwest of the project area, appears to have been formed around 1855 (Foster and Foster 1994). In 1876, the community changed its name to Valley View, and after the turn of the century the community became a resort (named Kilaga Springs) because of the healthful mineral waters.

As easily mined deposits along perennial streams and rivers were rapidly depleted during the initial Gold Rush, a need arose to divert water to remote locations for placer mining. Several water conveyance systems were used to divert water. One system was the Whiskey Diggins Canal, which passes through the southern portion of the project area. The canal was constructed in the 1850s by the Gold Hill and Bear River Water Company to divert water from Deadman Creek, immediately east of the project area. The water conveyance system was subsequently sold to a Mr. Hall in 1861. After three changes in ownership during the 1870s, the South Yuba Water and Mining Company purchased the water conveyance system in May 1890. Pacific Gas and Electric Company purchased the entire South Yuba Water and Mining Company system, including the Whiskey Diggins Canal, in 1905, and in 1933 sold the canal to Nevada Irrigation District. By the late 19th century, the increase of new mining camps appearing in Placer County slowed considerably, and other economic pursuits, such as ranching and agriculture, became the backbone of the Placer County's economy.

### RANCHING AND AGRICULTURE

Ranching and agriculture, which had once been support systems that provided food to the miners, grew to become dominant industries. As thousands of miners poured into the area during the early 1850s, farmers and ranchers put additional acreage into production to meet the demand for potatoes, flour, and various dairy products.

The first of such settlements in Placer County was Sicard's Ranch, a Mexican grant on the south bank of the Bear River, west of the project area. The grant was given to Theodore Sicard in 1844. Sicard, a French sailor, built an adobe house on the land in 1846, which later became a prominent stopping place for travelers on the way to Sutter's Fort in Sacramento. Sicard and fellow countryman Claude Chana, who had arrived at the ranch in late 1846, planted peach and almond trees, which became the start of the commercial orchard business in the Sacramento Valley. Chana later bought the Sicard grant, and sold the products of his orchard, vineyard, and vegetable garden to area miners (Hoover 1990).

Another locally notable agricultural figure was John A. Livingston, who planted fruit trees on approximately 300 acres north of Newcastle. Livingston controlled four ranches in the Auburn area and eventually served as secretary of the Placer County Land Company (Foster and Foster 1990).

The 1855 General Land Office (GLO) plat map depicts farms and agricultural land in the vicinity, but none are depicted within the project area. Land patent indices list John F. Hicken and John B. Hicken as the earliest known owners of land. Their property, acquired in 1884 and 1886, encompassed the northeast and northwest sections of Section 22 in Township 13 North, Range 7 East (land patent records 2625 and 3222).

John B. Hicken was born in Prussia in 1836. It is unclear when he and his wife Maria Eliza immigrated to the United States; however, they were in Wisconsin by 1859, which is where their son John F. Hicken was born.

John B. Hicken is listed as a stock raiser in the 1900 Placer County census. The property he owned was then valued at $2,000 (U.S. Census 1900).

### 6.2.4 PREFIELD AND FIELD METHODOLOGY

Cultural resources investigations for the proposed project consisted of several elements: prefield research, review of previous cultural resources studies and historic maps, Native American consultation, field surveys, and documentation of resources. All aspects of the cultural resources study were conducted in accordance with guidelines outlined in the state Office of Historic Preservation's *Instructions for Recording Historical Resources* (OHP 1995) and the federal *Secretary of the Interior's Standards and Guidelines for the Identification of Cultural Resources* (48 *Federal Register* 44720–23) as amended on September 1983.

#### PREFIELD RESEARCH

Prefield research was used to determine whether previously documented cultural resources are present within and immediately adjacent to the area of potential affects (APE) within the project area. The APE is dependent on the activities that are proposed by the project. As noted above, the project encompasses construction of trails and two bridges over Raccoon Creek, and adding or improving parking access at Harvego Preserve, Mears Place, Garden Bar Road, and Twilight Ride. AECOM conducted prefield research at the North Central Information Center (NCIC) at California State University, Sacramento. Records maintained by the NCIC include California Department of Parks and Recreation (DPR) Series 523 archaeological site records, site location maps, maps of previous study coverage, National Register of Historic Places (NRHP) nomination forms, and relevant historical documentation and maps. The NCIC research also included a review of the following sources, all of which are on file at the information center:

- The NRHP, published by the National Park Service in 1996, as well as computer updates for 1966–2015
- The California Register of Historic Resources (CRHR), published by the State of California, through 2015
- *California Points of Historical Interest,* published by the State of California in 1992, as well as updates
- *Historic Spots in California,* published by the State of California in 2002
- *Directory of Properties in the Historic Property Data File,* published by the State of California in 1976, as well as updates
- *California Historical Landmarks*, published by the Office of Historic Preservation in 1996
- Archaeological Determinations of Eligibility
- Survey of Surveys (1989)
- NCIC base maps indicating reported cultural resources and previous investigations

### HISTORIC MAPS

A review of historic maps was conducted to define past landscape conditions and determine what buildings or structures may have existed in or near the project area. The 1856, 1868, and 1876 GLO plat maps do not depict any structures or roads in the APE. Few features are indicated in the surrounding area; features included on maps are dry ravines, Raccoon Creek (noted as "Dry Creek"), cultivated fields, and the occasional road. North of the project area, in Nevada County, Township 14 North, Range 7 East is noted as having "Rolling Hills with scattering Oak and Pine Timber".

### NATIVE AMERICAN CONSULTATION

AECOM, on behalf of the County, initiated the consultation process with appropriate Native American groups with a possible interest in the cultural resources studies and the proposed project. AECOM contacted the Native American Heritage Commission (NAHC) in Sacramento and requested a list of suitable tribal organizations and individuals and a search of the NAHC Sacred Lands files. The Sacred Lands files search revealed that no known sites of cultural or spiritual importance to the present-day Native American community were known to exist within the project area of potential effects for the proposed trails expansion project improvements. The NAHC also provided contact information (Table 6-1) for the following groups and individuals from the Auburn area.

**Table 6-1. Native American Contacts Provided by the Native American Heritage Commission**

| Individual | Address | Affiliation |
|---|---|---|
| Grayson Coney, Cultural Director | Tsi-Akim Maidu<br>P.O. Box 1316<br>Colfax, CA 95713 | Maidu |
| Don Ryberg, Chairperson | Tsi-Akim Maidu<br>11442 Butler Road<br>Grass Valley, CA 95945 | Maidu |
| Gene Whitehouse, Chairperson | United Auburn Indian Community of the Auburn Rancheria<br>10720 Indian Hill Road<br>Auburn, CA 95603 | Maidu/Miwok |
| Nicholas Fonseca, Chairperson | Shingle Springs Band of Miwok Indians<br>P.O. Box 1340<br>Shingle Springs, CA 95682 | Miwok/Maidu |

Source: Data provided by AECOM in 2017

Letters were sent to each of the contacts noted in Table 6-1 before the field survey was conducted. One response was received from the United Auburn Indian Community of the Auburn Rancheria. Although this correspondence did not indicate any specific concerns regarding the project, the tribe requested a copy of the cultural resource technical report and this SEIR.

## 6.2.5 2019 HFRP TRAILS EXPANSION PROJECT SURVEY RESULTS

AECOM cultural resource specialists conducted an intensive field survey of the proposed trail segments and parking lots on December 6–8, 13–14, 2016, May 15–16 and June 7, 2017, and May 18, 2018.

The inventory of the project area identified two historic-era cultural resource sites HF-2016-01 and HF-2017-01: a series of stacked rock walls and a water conveyance ditch with associated features, and a prehistoric shallow mortar (MF1). The two historic-era sites, reflect the themes of ranching and mining, respectively, The sites are related to, or likely related to, placer mining activities that were conducted from the middle of the 19th century until at least the early decades of the 20th century and ranching activities that began at approximately the same time as mining activities and continued into the 21st century. Small-scale placer mining continues today in the vicinity of the project area, but it is avocational. No commercial ventures are operating in the area. Ranching and other agricultural endeavors are the continued staple industries of the area, and parts of the project area are still being used for cattle grazing. Resources identified during the AECOM cultural resources surveys are briefly described below.

## 6.2.6 PREHISTORIC FINDS

Cultural resource investigations conducted in 2016, 2017 and for the Twilight Ride parcel in 2018 resulted in the identification of a shallow mortar (MF1) located on a low bedrock exposure approximately 0.5 m in size. Exposure of the ground surface surrounding the feature failed to identify any associated archaeological constituents. Members of both the United Auburn Indian Community and Colfax Todds Valley Consolidated tribe visited the site on April 8, 2019 and neither tribal member located any associated cultural features. Although this shallow bedrock mortar feature is located within the project parcel, it is not near the proposed development area, and will not be impacted by project construction.

## 6.2.7 HISTORIC-ERA FINDS

Two historic cultural resource sites were identified during the survey: a series of stacked rock walls and a water conveyance ditch with associated features. These features are described below.

### Cultural Resource HF-2016-01: Rock Walls

HF-2016-01 is a series of rock walls that reflect the theme of ranching. The site consists of four segments of mortarless rock walls between 1 and 3 meters high. Three walls are located to the north and one wall to the south of an improved, rock-lined drainage. A wire-wrapped milled lumber post was noted at the site, but no other artifacts were observed. Grasses covered approximately 100 percent of the ground surface and may have obscured small artifacts, but tin can–sized artifacts would have been visible. The absence of diagnostic artifacts limits the potential to estimate this site's age. Mortarless rock walls are common in Northern California and are often associated with livestock control.

Because of the lack of associated artifacts to identify the time the walls were erected or the identity of the builders, and because it does not represent a distinctive method of construction, this site has little data potential or association with important people/events in history.

### Cultural Resource HF-2017-01: Water Conveyance Ditch and Stacked Rock Wall

HF-2017-01 is a water conveyance ditch and stacked rock wall that may be associated with Whiskey Diggins Canal, 30 meters to the east. The site consists of a ditch segment with stacked rock walls reinforcing part of the south berm and the remains of a small wooden bridge at its eastern terminus crossing Whiskey Diggins Canal. Metal wire affixed to a tree branch with an eye bolt–like piece of hardware was the only artifact observed, although

heavy vegetation may have obscured additional artifacts. The absence of diagnostic artifacts limits the potential to estimate this site's age.

There are four significant breaches in the ditch and berm. Three of the breaches appear to be from cattle and erosion. The fourth breach, near the bridge, appears intentional and likely occurred during construction of the ditch. The bridge appears to be missing components, as evidenced by straight lines of protruding nails on top of the cross beams. Water conveyance ditches are common in the Sierra Nevada foothills region of California and are often associated with mining or irrigation. The wooden bridge may have functioned as a support structure or trestle for a pipe transporting water across the Whiskey Diggins Canal to the segment of the ditch that continues on the other side of the canal. Because of the lack of associated artifacts to identify the time the ditch and associated features were erected or the identity of the builders, and because it does not represent a distinctive method of construction, this site has little data potential or association with important people/events in history.

## 6.3 REGULATORY SETTING

### 6.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

#### SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

As part of the process involved in acquiring a Section 404 from the Corps, compliance with Section 106 of the National Historic Preservation Act is required. Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations (Title 36, Section 800 of the Code of Federal Regulations [i.e., 36 CFR 800], as amended in 1999) requires federal agencies to consider the effects of their actions, or those they fund or permit, on properties that may be eligible for listing or are listed in the NRHP.

The NRHP is a register of districts, sites, buildings, structures, and objects of significance in American history, architecture, archaeology, engineering, and culture. The regulations provided in 36 CFR 60.4 describe the criteria used to evaluate cultural resources for inclusion in the NRHP. Cultural resources can be significant on the national, state, or local level. Properties may be listed in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

(a) are associated with events that have made a significant contribution to the broad patterns of our history;

(b) are associated with the lives of persons significant in our past;

(c) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) have yielded, or may be likely to yield, information important in prehistory or history.

To determine whether an undertaking could affect historic properties, cultural resources (archaeological, historical, and architectural properties) must be identified, inventoried, and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead federal agency, the work necessary to comply can be undertaken by others. The Section 106 review process involves a four-step procedure:

- Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).
- Resolve adverse effects by consulting with the State Historic Preservation Officer and other consulting agencies, including the Advisory Council on Historic Preservation if necessary, to develop an agreement that addresses the treatment of historic properties.

## 6.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

### California Register of Historic Resources

The California Register of Historical Resources (CRHR) established a list of properties that are to be protected from substantial adverse change (PRC Section 5024.1). A historical resource may be listed in the CRHR if it meets any of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in California's past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.
4. It has yielded or is likely to yield information important in prehistory or history.

The CRHR includes properties that are listed or have been formally determined to be eligible for listing in the NRHP, State Historical Landmarks, and eligible Points of Historical Interest. Other resources require nomination for inclusion in the CRHR. These may include:

1. Resources contributing to the significance of a local historic district.
2. Individual historical resources.
3. Historical resources identified in historic resource surveys conducted in accordance with State Historic Preservation Office procedures.
4. Historic resources or districts designated under a local ordinance consistent with Commission procedures, and
5. Local landmarks or historic properties designated under local ordinance.

## California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on historical resources, unique archaeological resources, and tribal cultural resources. Under PRC Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Under PRC Section 21084.2, a "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

### *Historical Resources*

"Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1). The determination of significant impacts on historical and archaeological resources is described in Sections 15064.5(a) and 15064.5(b) of the State CEQA Guidelines. Section 15064.5(a) states that historical resources include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (PRC Section 5024.1).

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1).

4. The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the PRC), or identified in a historical resources survey (meeting the criteria in Section 5024.1[g] of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

### *Unique Archaeological Resources*

CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2(g) states that a "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

### *Tribal Cultural Resources*

CEQA also requires lead agencies to consider whether projects will affect tribal cultural resources. PRC Section 21074 states the following:

a) "Tribal cultural resources" are either of the following:

   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

      A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

   2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

### *Health and Safety Code, Section 7052 and 7050.5*

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California Native American Heritage Commission (NAHC).

### *California Native American Historical, Cultural, and Sacred Sites Act*

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. This law requires that if human remains are discovered, construction or excavation activity must cease and the county coroner must be notified. If the remains are of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons most likely to be descended from the Native American whose remains were discovered. The California Native American Historical, Cultural, and Sacred Sites Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

### *Public Resources Code, Section 5097*

PRC Section 5097 specifies the procedures to follow in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. PRC Section 5097.5 states the following:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

### *Assembly Bill 52*

Assembly Bill (AB) 52, signed by Governor Edmund G. Brown Jr. in September 2014, establishes a new class of resources under CEQA: "tribal cultural resources" (TCRs). AB 52 (PRC Sections 21080.3.4, 21080.3.2, and 21082.3) states that upon written request by a California Native American Tribe, a CEQA lead agency must begin consultation once it determines that the project application is complete, before the agency issues a notice of preparation of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration. AB 52 also required a revision of State CEQA Guidelines Appendix G, the environmental checklist. This revision created a new category for TCRs.

As defined in PRC Section 21074, to be considered a TCR, a resource must be either:

1. listed or determined to be eligible for listing, on the national, state, or local register of historic resources; or

2. a resource that the lead agency determines, in its discretion and supported by substantial evidence, to treat as a tribal cultural resource pursuant to the criteria in PRC Section 50241(c). PRC Section 5024.1(c) provides that a resource meets criteria for listing as an historic resource in the California Register if any of the following apply:

   (1) It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

   (2) It is associated with the lives of persons important in our past.

   (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

   (4) It has yielded, or may be likely to yield, information important in prehistory or history.

## 6.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for cultural and tribal cultural resources.

**GOAL 5.D:** To identify, protect, and enhance Placer County's important historical, archaeological, paleontological, and cultural sites and their contributing environment.

- **Policy 5.D.1.** The County shall assist the citizens of Placer County in becoming active guardians of their community's cultural resources.
- **Policy 5.D.2.** The County shall solicit the cooperation of the owners of cultural and paleontological resources, encourage those owners to treat these resources as assets rather than liabilities, and encourage the support of the general public for the preservation and enhancement of these resources.
- **Policy 5.D.3.** The County shall solicit the views of the Native American Heritage Commission, State Office of Historic Preservation, North Central Information Center, and/or the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
- **Policy 5.D.4.** The County shall coordinate with the cities and municipal advisory councils in the County to promote the preservation and maintenance of Placer County's paleontological and archaeological resources.
- **Policy 5.D.5.** The County shall use, where feasible, incentive programs to assist private property owners in preserving and enhancing cultural resources.
- **Policy 5.D.6.** The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a Countywide cultural resource data base, to be maintained by the Division of Museums.
- **Policy 5.D.7.** The County shall require that discretionary development projects be designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less-than-significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance, and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.
- **Policy 5.D.8.** The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.
- **Policy 5.D.9.** The County shall use the State Historic Building Code to encourage the preservation of historic structures.

- **Policy 5.D.10.** The County will use existing legislation and propose local legislation for the identification and protection of cultural resources and their contributing environment.
- **Policy 5.D.11.** The County shall support the registration of cultural resources in appropriate landmark designations (i.e., National Register of Historic Places, California Historical Landmarks, Points of Historical Interest, or Local Landmark). The County shall assist private citizens seeking these designations for their property.
- **Policy 5.D.12.** The County shall consider acquisition programs (i.e., Placer Legacy Open Space and Agricultural Conservation Program) as a means of preserving significant cultural resources that are not suitable for private development. Organizations that could provide assistance in this area include, but are not limited to, the Archaeological Conservancy, the Native American community, and local land trusts.

## 6.4 IMPACTS

### 6.4.1 ANALYSIS METHODOLOGY

The focus of this analysis is cultural and tribal cultural impacts that would result from project implementation. This analysis also considers how the additional lands in the trails expansion areas would or would not change the conclusions of the prior environmental review.

#### SUMMARY OF METHODOLOGY

As described above in Section 6.2.4, “Prefield and Field Methodology,” cultural resources investigations for the project area consisted of a staged approach that included prefield research, review of previous cultural resources studies and historic maps, Native American consultation, field surveys, and documentation of resources.

Resources were assessed for their potential for eligibility for inclusion in the NRHP and CRHR. All aspects of the cultural resources study were conducted in accordance with the *Secretary of the Interior’s Guidelines for the Treatment of Historic Properties*, and documented according to the guidelines outlined in *Instructions for Recording Historical Resources* (OHP 1995).

#### RESOURCE ELIGIBILITY

One of the most important considerations in determining the potential consequences of the proposed project on documented cultural resources is the level of significance each site or feature possesses when measured against the NRHP and CRHR criteria (see Section 6.2, “Regulatory Setting,” above). The potential for eligibility of each documented resource within the project area and in the vicinity is summarized below in Table 6-2. No resources were identified in the APE that would be considered eligible for listing in the NRHP or CRHR. On this basis, there are no known adverse effects on NRHP-eligible historic properties and no known potentially significant effects on CRHR-eligible resources that may arise from direct or indirect impacts of the project.

**Table 6-2. Preliminary NRHP/CRHR Resource Eligibility**

| Resource Number | Association | Resource Type | NRHP and CRHR Eligibility |
|---|---|---|---|
| HF-2016-1 | Historic | Rock Walls | Not eligible |
| HF-2017-1 | Historic | Water Conveyance Ditch and Stacked Rock Wall | Not eligible |

Source: Data compiled by AECOM in 2017

The two historic-era resources, the Rock Walls (HF-2016-1) and Water Conveyance Ditch and Stacked Rock Wall (HF-2017-1) lack associated artifacts to identify the time they were erected or the identity of the builders, and because they do not represent a distinctive method of construction, these sites have little data potential or association with important people/events that would qualify for inclusion in the NRHP or CRHR.

## 6.4.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and Appendix G of the State CEQA Guidelines, the proposed project would result in a potentially significant impact on cultural resources or tribal cultural resources if it would:

- cause a substantial adverse change in the significance of an archaeological resource or a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- disturb any human remains, including those interred outside of dedicated cemeteries;
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    i. listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or
    ii. a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Section 15064.5 of the State CEQA Guidelines defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.

## 6.4.3 IMPACT ANALYSIS

IMPACT 6-1 Cultural Resources—Potential for substantial adverse change to a Significant Cultural Resource. *Nine potentially significant cultural resources and one significant cultural resource were documented within the 2010 Certified EIR for HFRP, while two historic era resources were identified within the HFRP Trail Expansion boundary. Construction related activity has the potential to significantly impact cultural resources.*

Significance *Potentially Significant (No new significant impact from those in 2010 HFRP certified EIR)*

| | |
|---|---|
| Mitigation Proposed | *Mitigation Measure 6-1: Modify Project Plans to Avoid Potentially Significant Cultural Resources and Actively Monitor Resources for Indirect Effects* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

Nine potentially significant cultural resources and one significant archaeological resource were documented within the Spears Ranch portion of the HFRP. The analysis found that park construction could damage or destroy these cultural resources and increasing public recreation use of the project area would create a risk of indirect damage to potentially significant or significant cultural resources. However, implementing Mitigation Measure 6-1 to actively monitor potential indirect impacts to resources from visitors and modifying project plans to avoid significant cultural resources reduced the potentially significant impact to **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

AECOM cultural resource specialists conducted an intensive field survey of the proposed trail corridor and park entry on December 6-8, 13-14, 2016, May 15-16 and June 7, 2017, and May 18, 2018. The inventory of the project area identified two historic-era resources: the Rock Walls (HF-2016-01) and Water Conveyance Ditch and Stacked Rock Wall (HF-2017-01). However, due to the lack of associated artifacts to identify the time they were erected or the identity of the builders, and because they do not represent a distinctive method of construction, these sites have little data potential or association with important people/events that would qualify them for inclusion in the NRHP or CRHR. No cultural resources that are considered significant under NHRP or CRHR criteria were identified in the project area; therefore, there is a finding of no historic properties affected and **no impact**.

The proposed HFRP Trails Expansion Project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 6-2 | Cultural Resources—Potential for Disturbance of Undiscovered Cultural Resources. *The park and Trail Expansion project vicinity are known to contain numerous historic and prehistoric resources. In addition, buried traces of historic-era activity and early Native American occupation that remain undocumented may be present within and in the vicinity of proposed trails. Ground-disturbing activities during construction of trails and project area facilities could disturb undiscovered cultural resources.* |
| Significance | *Potentially Significant (No new significant impact from those identified in the 2010 certified HFRP EIR)* |
| Mitigation Proposed | *Mitigation Measure 6-2: Protect Previously Unknown Cultural Resources* |
| Residual Significance | *Less than Significant* |

## HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 Certified EIR described how the general area of the HFRP was known to contain numerous historic and prehistoric resources, and buried traces of historic-era activity and early Native American occupation that remain undocumented could have been present within and near proposed trail alignments. Although ground-disturbing activities during construction of trails and park facilities could have disturbed undiscovered cultural resources, implementing Mitigation Measure 6-2 to protect previously unknown cultural resources reduced the potentially significant impact to **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Although the project area was subject to an intensive archaeological inventory, and methods of identifying resources located on and above the ground surface were used, it is possible that presently unidentified cultural deposits are present in subsurface contexts. Subsurface prehistoric resources may take the form of stone tools and tool fragments, rock concentrations, burned and/or unburned shell or bone, and/or darkened sediments containing some of the above-mentioned constituents. Historic-era deposits can include fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains, such as building foundations and refuse deposits.

Because of the potential for disturbing undiscovered cultural resources during construction of trails, overlooks, bridges and parking facilities, this impact would be potentially significant. Implementing Mitigation Measure 6-2 would protect previously unknown cultural resources, reducing the potentially significant impact to **less than significant**.

The proposed HFRP Trails Expansion Project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 6-3 | Cultural Resources—Potential for Disturbance of Unknown Human Interments. *Although no evidence of human interments was found in documentary research or during the archaeological inventory, evidence of prehistoric and historic use of the park and expansion project area has been found. If undiscovered human remains are present, ground-disturbing activities during construction of trails and other project area facilities could adversely affect presently unmarked human interments.* |
| Significance | *Potentially Significant (No new significant impact from those identified in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 6-3: Stop Potentially Damaging Work if Human Remains are Uncovered During Construction* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

No evidence of human interments was found within or near the park project vicinity. However, if ground-disturbing activities during construction of trails and other park facilities uncovered human interments, implementing Mitigation Measure 6-3 required that potentially damaging construction work cease until

appropriate actions are taken to protect cultural resources, which reduced the potentially significant impact to **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

The entire project area was subject to an intensive archaeological inventory, and the project vicinity is known to contain numerous historic-era and prehistoric resources. No evidence of human remains was found within or near the project area. However, undiscovered human internments could be encountered during project-related ground-disturbing activities.

Because of the potential for encountering unknown human interments during park and project area construction of trails and park facilities, this impact would be potentially significant. Implementing Mitigation Measure 6-3 would cease potentially damaging construction work until appropriate actions are taken to protect cultural resources would reduce the potentially significant impact to **less than significant**.

The proposed HFRP Trails Expansion Project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 6-4 | Tribal Cultural Resources—*Impacts on Tribal Cultural Resources were not evaluated under separate significance criteria in the 2010 Certified EIR, as such criteria had not yet been adopted. The HFRP Trail Expansion Project may result in impacts on Tribal Cultural Resources. However, with implementation of mitigation measure S6-4, which notifies and provides the opportunity for the tribes to conduct site visits for TCRs prior to general public access, this potentially significant impact would be reduced to less-than-significant.* |
| Significance | *Potentially Significant (New impact not previously considered in 2010 HFRP certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S6-4: Post Ground-Disturbance Site Visit* |
| Residual Significance | *Less than significant* |

### 2010 HFRP Certified EIR Impact Summary

Impacts on tribal cultural resources were not evaluated under separate significance criteria in the 2010 Certified EIR, as such criteria had not yet been adopted. Consultation with the UAIC, the Ione Band of Miwok Indians, the Washoe Tribe of Nevada and California, and the Colfax-Todds Valley Consolidated Tribe did not result in the identification of TCRs as described under AB 52 and PRC Section 21074.

### 2019 HFRP Trails Expansion Project Impact Analysis

Placer County initiated AB52 consultation for the proposed project with the Ione Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria (UAIC), the Washoe Tribe of Nevada and California, and the Colfax-Todds Valley Consolidated Tribe. As requested by the UAIC, Placer County conducted a site visit with representatives of UAIC and Colfax Todds Valley Consolidated Tribe on April 8, 2019 to assess the presence of TCRs within the proposed new expansion areas. The lone cultural resource that was noted on the visit

was on the Twilight Ride parcels and was determined to be well outside of the project development zone. No other TCRs were noted on any of the other sites during the site visit. Following this site visit, the UAIC and Colfax Todds Valley Consolidated Tribe members requested that they be allowed to inspect the expansion area following grading for the parking lot and trails and prior to allowing public access into the areas. Consultation with these groups did not result in the identification of TCRs as described under AB 52 and PRC Section 21074. Although new ground disturbance could have a potentially significant impact on TCRs, with the implementation of Mitigation Measure S6-4, which notifies the UAIC and Colfax Todds Valley Consolidated Tribe members post-grading and provides the opportunity for the tribes to conduct site visits for TCRs prior to general public access, this potentially significant impact would be reduced to **less-than-significant**.

## 6.5 MITIGATION MEASURES

Mitigation Measure 6-1: Design Project to Avoid Potentially Significant Direct Impacts to Cultural Resources and Actively Monitor Resources for Indirect Impacts *(applies to Impact 6-1)*

The County will prepare detailed design of trails, roads, and other HFRP Trail Expansion project facilities to ensure that direct effects associated with project implementation avoids all significant and potentially significant documented cultural resources in the project area. As part of the County's ongoing operational responsibility, usage that threaten any potentially significant documented cultural resources will be actively managed to avoid damage. If designing such trails and facilities to avoid potential impacts is not feasible or if management of trail expansion areas usage indicates potential impacts to significant or potentially significant cultural resources, an approved treatment plan shall be drafted and implemented to mitigate the significant impacts. Such a plan may include one or more of the following elements:

- vegetation removal and surface inspection;
- ethnographic studies or Native American consultation, or both;
- subsurface testing; and
- if necessary, data recovery.

Mitigation Measure 6-2: Protect Previously *Unknown* Cultural Resources *(applies to Impact 6-2)*

Given the potential for subsurface deposits, if undocumented resources are encountered during construction, all work in the vicinity of the find shall cease until a qualified professional archaeologist can assess the significance of the find and, if appropriate, provide recommendations for treatment. Preferred measures for treatment may include no action, avoidance of the resource through the relocation of facilities (e.g., "field-fit" of a trail alignment to avoid the resource) or subsurface testing, or relocation to another location not subject to disturbance. For any such discovery, a memorandum documenting the results of the evaluation shall be provided to the County by the archaeologist, and the County shall forward the memorandum to the California Department of Parks and Recreation and the State Historic Preservation Officer.

### Mitigation Measure 6-3: Stop Potentially Damaging Work if Human Remains are Uncovered during Construction *(applies to Impact 6-3)*

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the construction contractor or the County, or both, shall immediately halt potentially damaging excavation in the area of the burial and notify the County coroner and a qualified professional archaeologist to determine the nature of the remains. The coroner shall examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands, in accordance with Section 7050(b) of the Health and Safety Code. If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). After the coroner's findings are presented, the County, the archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.

Upon the discovery of Native American remains, the procedures above regarding involvement of the County coroner, notification of the NAHC, and identification of a MLD shall be followed. The County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours after being granted access to the site to complete a site inspection and make recommendations. A range of possible treatments for the remains may be discussed: nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment. AB 2641 (Chapter 863, Statutes of 2006) suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641 includes a list of site protection measures and states that the County shall comply with one or more of the following measures:

- Record the site with the NAHC or the appropriate Information Center.
- Utilize an open-space or conservation zoning designation or easement.
- Record a document with the county in which the property is located.

The County or its authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The County or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner. Adherence to these procedures and other provisions of the California Health and Safety Code and AB 2641 would reduce potential impacts on human remains to a less-than-significant level.

### Mitigation Measure S6-4: Post Ground-Disturbance Site Visit. *(applies to Impact 6-4)*

Although no unique archaeological resources have been identified within the project development areas and the NAHC Sacred Lands database search was negative, there is a possibility that resources which

UAIC or Colfax Todds Valley tribal members consider to be Tribal Cultural Resources could be unearthed during project construction.

Once new trails and/or parking areas have been graded and prior to the new trails and/or parking areas being opened to the public, the County will notify the UAIC and the Colfax Todds Valley Consolidated Tribe so they may conduct an additional site visit, if they desire.

In addition, if tribal cultural resources are identified that have the potential to be adversely affected by the project, Placer County will work with the tribes to minimize those impacts. Examples of impact minimization could include:

(1) avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context

(2) treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

(A) protecting the cultural character and integrity of the resource;

(B) protecting the traditional use of the resource; or

(C) protecting the confidentiality of the resource.

# 7.0 VISUAL RESOURCES

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) visual resources findings, describes the visual character of the proposed HFRP Trails Expansion Project, identifies pertinent regulations, evaluates project-related impacts associated with visual resources, and provides mitigation measures as necessary to reduce those impacts. The visual impact analysis considers existing scenic vistas, resources and character or quality of public views of the site and its surrounding, and changes in light and glare in the project area. The descriptions of the existing visual setting are accompanied by photographs of representative views, taken during site visits on May 15, 2017 and May 24, 2019.

## 7.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 HFRP CERTIFIED EIR

Chapter 7, "Visual Resources" of the 2010 HFRP Certified EIR included a detailed discussion of the park environmental and regulatory setting, potential impacts associated with visual resources resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts.

### 7.1.1 FINDINGS OF FACT

The following is a list of the 2010 HFRP Certified EIR findings.

- Construction activity, construction equipment, and areas of vegetation removal would be temporarily visible during and immediately after construction of park project facilities (e.g., bridges, trails, overlooks, roads, parking areas). However, these changes in views would be minimal and not visible from most off-site locations. In addition, all views of construction activities would be temporary. Therefore, the impact was considered **less than significant**.

- The park project would introduce new physical elements into the landscape; however, the proposed facilities of the park (e.g., bridges, trails, overlooks, restroom, picnic areas, expanded parking area) would be in remote locations, avoiding visually obtrusive effects, and therefore were determined to be a **less-than-significant** impact.

- The proposed project would widen Garden Bar Road which would require removal of existing mature oak trees. The removal of trees would result in a substantial physical change to the visual environment of the road and would occur within proximity of viewers, including adjacent residents. Implementing measures to revegetate and restore all disturbed areas to minimize visual quality impacts and to protect woodland habitat reduced the potentially significant impact, but not to a less-than-significant level. The impact remained **significant and unavoidable**.

### 7.1.2 HFRP MITIGATION MEASURES ADOPTED BY THE COUNTY IN 2010

Implementation of the following mitigation measures, which were adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on visual resources.

- **Mitigation Measure 7-3:** Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts.
- **Mitigation Measure 12-8:** Protect Oak Woodland Habitat.

## 7.2 ENVIRONMENTAL SETTING

This section of the Subsequent EIR describes the physical environmental conditions of the proposed HFRP Trails Expansion Project. See Chapter 7.0 “Visual Resources” of the 2010 HFRP Certified EIR for information about the existing park.

### 7.2.1 REGIONAL AND LOCAL VISUAL CHARACTER

#### VISUAL CHARACTER OF THE AREA

The HFRP Trails Expansion area is located in the Sierra Nevada foothills of western Placer County (see Exhibits 3-1 and 3-2 in Chapter 3.0, “Project Description”). The area has few roads and includes expansive undeveloped lands within the Raccoon Creek and Bear River watersheds. The area is characterized by blue oak woodland and oak-foothill pine woodland. Exhibit 3-4 in Chapter 3.0 shows the boundaries of the HFRP Trails Expansion area and the planned alignment of the proposed new trails.

Land proposed for inclusion in the expanded park boundary includes Harvego, Taylor Ranch, Kotomyan Preserve, Outman Preserve, easement through the Liberty Ranch parcel, Twilight Ride property, connectivity parcels between Taylor Ranch and the existing HFRP and the Garden Bar 40 parcel, along with the various easements connecting the parcels (Exhibit 3-4). The main vegetation types on Harvego are blue oak woodlands, blue oak – foothill pine, montane hardwoods, riparian and riverine habitat, and annual grassland habitat. Bald Rock mountain is the highest point in elevation at 1,694 feet above mean sea level (amsl). The Bear River forms the northern property boundary line, dividing Placer County from Nevada County and drains the northern part of Placer County. The property includes wildlife habitat, scenic open space, and agriculture and recreation uses.

The Kotomyan Preserve is located on New Hope School Road, just north of the City of Auburn and consists of oak-foothill pine woodland. The Kotomyan Preserve is one parcel removed (about 2,500 feet) from the existing park and adjacent to Taylor Ranch and Liberty Ranch. The topography of Liberty Ranch varies throughout, and the site is characterized by a variety of features including; perennial and ephemeral streams draining steep rocky outcroppings, oak woodland savannahs, and riparian corridors. Livestock seasonally graze Liberty Ranch. The Outman Preserve is characterized by a variety of features including; gently sloping blue oak woodlands, steep montane hardwood and foothill pine woodlands, an ephemeral stream, a perennial stream and a riparian corridor with native willow and alder. The Twilight Ride parcel is dominated by annual grasslands with scattered blue oak (*Quercus douglasii*) and patches of blue oak woodland. Topography is gentle with an elevation differential ranging from approximately 1,075 to 1,240 feet amsl from southwest to northeast. Ridgelines of the surrounding foothills dominate views from within the project area and are the nearest visually prominent landforms. The surrounding landscape is primarily open grazing land, rural residential, or oak woodland. (Exhibits 7-1a and 7-1b)

Land adjacent to the HFRP Trails Expansion area consists of rolling hills and is primarily private lands used for agriculture, grazing, and rural residences. Surrounding views include undulating topography and vegetation common in the foothills including pockets of chaparral, oak woodlands, and grasslands.

**Exhibit 7-1a. View within HFRP Expansion Area – Twilight Ride Parcel**

**Exhibit 7-1b. View within the HFRP Expansion Area – Harvego Preserve**

**Exhibit 7-1c. View of Racoon Creek from Trail Connection to Existing HFRP**

### 7.2.2 VISIBILITY FROM THE SURROUNDING AREA

The majority of the HFRP Trails Expansion area (i.e., trail network and parking areas) are not readily visible from any public roadways. Most of the project lacks key observation points (KOPs) that offer views of proposed trails, parking or restrooms because the project area is secluded, heavily vegetated, and protected from views from the outside by surrounding topography. However, a few private residences located near the Mears Place, Garden Bar Road, Curtola Ranch Road, and Twilight Ride parking areas are identified as having potential views of proposed project facilities. For the analysis of potential visual impacts, 4 KOPs were selected (Exhibits 7-2 through 7-5).

## 7.3 REGULATORY SETTING UPDATE

### 7.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to visual resources are applicable to the proposed project.

Source: Google Earth Pro 2018

**Exhibit 7-2. Aerial View of Garden Bar Road Parking Area and Access Road**

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Source: Google Earth Pro 2018

**Exhibit 7-3. Aerial View of Mears Place Parking Area**

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Source: Google Earth Pro 2018

**Exhibit 7-4. Aerial View of Curtola Ranch Road Access Road and Parking Areas**

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Source: Google Earth Pro 2018

**Exhibit 7-5. Aerial View of Twilight Ride Parking Area**

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## 7.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

### CALIFORNIA SCENIC HIGHWAY PROGRAM

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation. The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on the amount of the natural landscape that travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view.

There are no state-designated highways within the viewshed of the project area. State Route 49, which is located approximately 1/2 mile east of the project area, has been deemed eligible for listing as a scenic highway but has not been officially designated (Caltrans 2019). No portions of the project area are visible from State Route 49.

## 7.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for visual resources.

**GOAL 1.K:** To protect the visual and scenic resources of Placer County as important quality-of-life amenities for County residents and a principal asset in the promotion of recreation and tourism.

- **Policy 1.K.1.** The County shall require that new development in scenic areas (e.g., river canyons, lake watersheds, scenic highway corridors, ridgelines and steep slopes) is planned and designed in a manner which employs design, construction, and maintenance techniques that:

  a. Avoids locating structures along ridgelines and steep slopes;

  b. Incorporates design and screening measures to minimize the visibility of structures and graded areas; and

  c. Maintains the character and visual quality of the area.

- **Policy 1.K.2.** The County shall require that new development in scenic areas be designed to utilize natural landforms and vegetation for screening structures, access roads, building foundations, and cut and fill slopes.

- **Policy 1.K.4.** The County shall require that new development incorporates sound soil conservation practices and minimizes land alterations. Land alterations should comply with the following guidelines:

  a. Limit cuts and fills;

  b. Limit grading to the smallest practical area of land;

  c. Limit land exposure to the shortest practical amount of time;

  d. Replant graded areas to ensure establishment of plant cover before the next rainy season;

e. Create grading contours that blend with the natural contours on site or with contours on property immediately adjacent to the area of development; and,

f. Provide and maintain site-specific construction Best Management Practices (BMPs)

- **Policy 1.K.5.** The County shall require that new roads, parking, and utilities be designed to minimize visual impacts. Unless limited by geological or engineering constraints, utilities should be installed underground and roadways and parking areas should be designed to fit the natural terrain.

- **Policy 1.K.6.** The County shall require that new development on hillsides employ design, construction, and maintenance techniques that:

  a. Ensure that development near or on portions of hillsides do not cause or worsen natural hazards such as erosion, sedimentation, fire, or water quality concerns;

  b. Include erosion and sediment control measures including temporary vegetation sufficient to stabilize disturbed areas;

  c. Minimize risk to life and property from slope failure, landslides, and flooding; and,

  d. Maintain the character and visual quality of the hillside.

**GOAL 1.L:** To develop a system of scenic routes serving the needs of residents and visitors to Placer County and to preserve, enhance, and protect the scenic resources visible from these scenic routes.

- **Policy 1.L.3.** The County shall protect and enhance scenic corridors through such means as design review, sign control, undergrounding utilities, scenic setbacks, density limitations, planned unit developments, grading and tree removal standards, open space easements, and land conservation contracts.

- **Policy 1.L.5.** The County shall encourage the development of trails, picnicking, observation points, parks, and roadside rests along scenic highways.

- **Policy 1.L.7.** The County shall encourage the use of bicycles as an alternative mode of travel for recreational purposes in scenic corridors.

- **Policy 1.L.10.** The County shall coordinate scenic route programs among local, regional, and state jurisdictions, recognizing that scenic routes are a resource of more than local importance.

## 7.4 IMPACTS

### 7.4.1 ANALYSIS METHODOLOGY

The focus of this analysis is visual resource impacts to public vantage points that would result from project implementation. This analysis also considers how the HFRP trail expansion areas would or would not change the conclusions of the prior environmental review. This visual impact analysis is based on a field survey, and review of aerial photographs (Exhibits 7-2 thought 7-5) in relation to the surrounding vicinity. The elements of the proposed project were compared to existing views of the area to determine how the project area would change from existing conditions.

## 7.4.2 THRESHOLDS OF SIGNIFICANCE

### CEQA THRESHOLDS

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on visual resources if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
- substantially degrade the existing visual character or quality of public views of the site and its surroundings; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

### CRITERIA USED IN VISUAL ASSESSMENT

The aesthetic quality of an area is determined through an assessment of the variety and contrasts of the area's visual features, the character of those features, and the scope and scale of the scene. The aesthetic quality of an area depends on the relationships between the area's features and their importance in the overall view. Visual images dominate observers' impressions of the aesthetic qualities of an area. Therefore, evaluating scenic resources requires a method that objectively characterizes visual features, assesses their quality in relation to the visual character of the surrounding area, and identifies their importance to the individuals viewing them. This process is derived from established federal procedures for visual assessment and is commonly used for a variety of project types.

Both natural and created features in a landscape contribute to the perceived visual quality of that landscape. Landscape characteristics influencing visual quality include geologic, hydrologic, botanical, wildlife, recreation, and urban features. A commonly used set of criteria for defining and evaluating visual quality includes the concepts of vividness, intactness, and unity. None of these is itself equivalent to visual quality; all three must be high to indicate high quality. These terms are defined as follows (FHWA 1983):

- "Vividness" is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.
- "Intactness" is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements.
- "Unity" is the visual coherence and compositional harmony of the landscape considered as a whole.

The quality of views of areas that could be affected by the proposed project is evaluated based on the relative degree of vividness, intactness, and unity apparent in the views, and also on viewer sensitivity. Viewer sensitivity is a function of several factors:

- visibility of the landscape,

- proximity of viewers to the visual resources,
- frequency and duration of views,
- number of viewers,
- types of individuals and groups of viewers, and
- viewers' expectations.

The sensitivity of a view of the landscape is also determined by the extent of the public's concern for a particular view. Areas of high visual sensitivity are highly visible to the general public. Scenic highways, tourist routes, and recreation areas are considered more visually sensitive than more urbanized locations. A determination finding that a potential visual impact has significance would be based on a change in visual character as determined by the obstruction of a public view, creation of an aesthetically offensive public view, or adverse changes to objects having aesthetic significance. The distance of a view from landscape elements plays an important role in the determination of an area's visual quality. Landscape elements are considered higher or lower in visual importance based on their position relative to the viewer. Generally, the closer a resource is to the viewer, the more dominant, and therefore visually important, it is to the viewer.

### ISSUES NOT ANALYZED FURTHER

The proposed project would have no impact associated with the following issues, and these issues will not be analyzed further in this chapter:

- **Scenic vistas or scenic highways:** There are no designated scenic vistas or scenic highways in the project area that could be affected by the proposed project. Therefore, these issues are not discussed further.

## 7.4.3 IMPACT ANALYSIS

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| IMPACT 7-1 | Visual Resources—Short-Term Changes in Visual Resources Associated with Project Construction. *Construction activity, construction equipment, and areas of vegetation removal would be temporarily visible during and immediately after construction of park and proposed project facilities (e.g., bridges, trails, overlooks, roads, parking areas). However, these changes in views would be minimal and not visible from most off-site public locations. In addition, all views of construction activities would be temporary.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 HFRP certified EIR indicated that the project would result in changes to the visual character of the site. Construction activity, equipment, and subsequent vegetation removal would be visible during and immediately after construction of facilities (e.g., bridges, trails, overlooks, roads, parking areas). Planned improvements to Garden Bar Road were identified as particularly prominent because the HFRP improvements would place construction vehicles and workers within visual range of residences located near Garden Bar Road and motorists. The 2010 HFRP certified EIR determined that views of specific construction activities would be partially or completely obscured from rural residences near the project area (within 0.5-mile) because of dense vegetation surrounding and within the project area and the number of viewers would be relatively small because of the remote location. These impacts were found to be temporary in nature and views of the improvements would be partially obscured by topography and vegetation. For these reasons, this impact was considered to be **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Construction of structures associated with the Trails Expansion project (e.g., picnic areas, bridges, overlooks, restrooms and parking areas) would result in changes to the visual character of the area. Construction of the Trails Expansion project would place construction vehicles and worker crews within visual range of residences located adjacent to the expansion boundaries. Along the Curtola Ranch Road entry road, two residences along Curtola Ranch Road and three residences that back up to Curtola Ranch Road would have unobstructed views of construction related activities occurring at the Curtola Ranch Road entry. Residences along Auburn Valley Road would be able to observe construction vehicles traveling between Bell Road and Curtola Ranch Road.

Additionally, travelers and residences would have unobstructed views associated with road improvements such as construction of a turn pocket on Bell Road and creation of the new Twilight Ride access road. Although views of construction activities are not a common occurrence along Curtola Ranch Road, the number of viewers would be relatively small because of the remote location. Neither the parking area at Harvego nor the Twilight Ride parcel would be visible from the roadways. Further, construction activities would be short term and cease upon completion of the improvements.

Construction of structures at the Mears Place parking lot would be more visible as the area is currently accessible to the public (see Exhibit 7-3). Mears serves as a point of access to the existing HFRP so views of workers constructing additional parking would be readily visible. Views from Mears would be temporary and cease upon completion of the parking lot expansion.

The existing Curtola Ranch Road parking area (which would be utilized for Phases 1 and 2 of the proposed project) is currently inaccessible to the public except for small docent-led tour groups who are escorted by the Placer Land Trust (PLT) staff (see Exhibit 7-4). Some vegetation would be cleared during construction of structures and parking areas at the Garden Bar Road, Curtola Ranch Road and Twilight Ride entrances. However, these facilities and improvements would avoid trees when possible, particularly native oaks greater than 5 inches dbh. Any cut vegetation would be chipped and broadcast to the area surrounding the structures and parking areas.

Visual impacts to Garden Bar Road were discussed in the 2010 Certified EIR. It was determined that there would be significant and unavoidable impacts to the visual resources associated with the improvements to Garden Bar Road at full build-out, as road widening, and corresponding oak tree removal would be required. With the current

Trails Expansion project, the Garden Bar Road access driveway and parking area would be modified from the originally-approved EIR, as the Garden Bar 40 parcel has been acquired by the County in the meantime. This parcel would allow for a parking area closer to Garden Bar Road than originally anticipated. However, due to the topography, the parking area would not be visible from either Garden Bar Road or any other adjacent rural residence.

Construction crew members and their vehicles would be present on-site to create the trail network but would largely remain out of site due to the remote location of the trail alignment and presence of intervening topography and vegetation. Equipment used by the crews to construct the trail systems may include a Sweco trail dozer, hand tools like pruners and rakes, and a chipper to lop and broadcast vegetation removed for construction of improvements. Final siting for the proposed trail alignment would route the trail to avoid removal of as many trees as possible, particularly native oaks greater than 5 inches in diameter at breast height (dbh). Retaining larger trees would help maintain the existing visual character of the land.

Views of construction activities occurring within the trail expansion area would be partially or completely obscured from rural residences near the project area (within 0.5-mile) because of the topography and vegetation surrounding and within the project area. In addition, construction activities would not occur at one location and at the same time but would occur at different locations for a temporary time then move to a different location for another time. Construction activities would alter short-term views of the project area. However, because most of the project area is not currently viewable from the public streets, visibility of construction activity is a temporary impact, and views of most construction related activity would be at least partially obscured by topography and vegetation, this impact is **less than significant**.

Short-term changes in visual resources associated with construction of the proposed trails expansion would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

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| IMPACT 7-2 | Visual Resources—Long-Term Changes in Visual Resources Associated with amenities for the Proposed HFRP Trails Expansion Project. *The park and proposed project would introduce new physical elements into the landscape; however, the proposed facilities of the park and proposed project (e.g., bridges, trails, overlooks, restrooms, picnic areas, parking areas) would be in remote locations, avoiding visually obtrusive effects from public vantage points.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 HFRP certified EIR found that the project area was in a remote part of the County and visibility from off-site locations was limited because of intervening, dense vegetation and topography. Although several residences had views of the Didion Ranch parking area, expansion of this area was considered small (i.e., 0.35 acre) and the presence of an existing lot nearby ensured views at this location would be consistent with existing views. Relocation of the helistop adjacent to the parking area was also found consistent with views of the existing parking area. The 2010 HFRP certified EIR found that the use of the existing ranch house and related structures (e.g., caretaker's residence) and introduction of several new structures (i.e., bunkhouses) would not significantly change the visual character of the area because only one residence had an unobstructed view of the Spears Ranch portion of the Park and a distant view of the existing ranch house. Further, the analysis determined that areas of proposed grading would be revegetated following construction and views of those improvements would be partially screened by vegetation and/or distance. Other facilities associated with the park (e.g., bridges, information kiosk, overlooks, restrooms, trails) would not be easily visible because of distance and intervening vegetation. The 2010 HFRP certified EIR concluded the HFRP and related facilities would not be prominently visible from off-site locations and would not cause a substantial change in long-range views from the surrounding area. Structures were to be constructed of similar material types and at similar size to existing structures found in the project area to maintain visual continuity. Because of the limited visibility of the project area (i.e., limited viewers), far distance to viewers, and views of structures and facilities would be like existing views of structures (i.e., expectations) in the project area, the 2010 HFRP certified EIR found that implementation of the project would have a **less-than-significant** impact on long-term views of the project area.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The Trails Expansion project is proposed in a remote area of the County where visibility of the site from off-site locations is limited because of intervening vegetation and topography, and the long distance from public areas/roadways. Structures proposed as part of the Trails Expansion may be visible from specific off-site locations such as rural residences and motorists traveling along roads located at a higher elevation where views are not subject to obstructions (rolling hills/topography, vegetation). These intermittent, long-distance views of the Trails Expansion area would mostly consist of the new parking and amenities such as restrooms and picnic areas at the trailheads. Introduction of the parking lot expansion at Mears Place would be visible to visitors since public parking at this location already exists. The planned parking expansion at Mears would be small (25 new parking spaces) and views of the gravel lot would be consistent with those of the existing parking area. The Garden Bar 40, Harvego, and Twilight Ride parking lots require access roads to reach them, in some instances at a substantial distance from public roadways used to access the entry (see Exhibit 7-2 through 7-5). Therefore, the proposed improvements would not be prominently visible from off-site public locations and would not cause a substantial change in long-range views from the surrounding area.

To enhance the visitor experience, overlooks are proposed along the trail alignment. These structures are to be placed at select locations that offer prominent views of the region. Consequently, these structures may be visible from surrounding locations if they were to be placed along a ridge or at a prominent rock outcrop. The overlooks would incorporate natural colors into the design and the materials used would include stone, rock, and wood, which is consistent with the natural character of the project area.

Although facilities and structures associated with the project may be partially visible to the public from off-site locations, they would be constructed of natural material and colors so they would appear similar-in-nature to the type of structures viewers expect to see in a rural setting. Because of the limited visibility of the project area (i.e., limited number of viewers), the large distance between the park structure to the observer, and the incorporation of natural materials and color palettes, the post project views would appear like views of existing structures (i.e., expectations) in the project area. Implementation of the project would have a **less-than-significant** impact on long-term views.

The proposed trails expansion would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to long-term changes in visual resources associated with the Project's amenities based on changes in the project, circumstances or new information.

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| IMPACT 7-3 | Visual Resources—Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road and Curtola Ranch Road. *The park and proposed project would remove vegetation including trees to widen Garden Bar Road, Curtola Ranch Road, and a short section of Bell Road. The removal of trees would result in a substantial physical change to the visual environment of Garden Bar Road because of the large numbers of mature oak trees which would require removal.* |
| Significance | *Potentially Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts; and Mitigation Measure S12-7 in Chapter 12.0, "Biological Resources": Protect Oak Woodland Habitat* |
| Residual Significance | *Significant and Unavoidable* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The proposed widening Garden Bar Road during Phase 2 and 3 of the HFRP was determined to result in the removal of numerous existing, mature oak trees. The widening was deemed necessary to provide room for safe curves, appropriate lines of sight for drivers, and space for vehicles traveling in opposite directions to pass each other. Although construction activities would avoid native trees larger than 6 inches dbh to the extent possible and the roadway would remain a two-lane road, numerous large trees would require removal (between 100 and 250, depending on the final roadway design). The 2010 HFRP certified EIR indicated most oak trees that required removal were within 0.5-mile of the entrance at Garden Bar Road. Although Garden Bar Road is not a scenic highway or scenic vista, the removal of trees along the road would have altered existing views from adjacent residences and travelers along Garden Bar Road. Existing views of trees lining Garden Bar Road were found to be an important element in defining the aesthetic character of the project area and the HFRP project would have altered the views along this roadway segment permanently. Therefore, changes to the scenic character of Garden Bar Road were determined to be a significant impact. The 2010 HFRP certified EIR indicated that revegetation of the roadway and payment of in-lieu fees for any removal of oak trees over 6" in diameter reduced the impacts, but not to a less-than-significant level. This visual impact was determined to be **significant and unavoidable**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Widening of Curtola Ranch Road and Bell Road (near the entrance to Twilight Ride), and introduction of ranger booths and gates to control access to all the parking areas would alter views of the project area, particularly if large trees require removal. Very few mature oak trees exist near the proposed Bell Road entrance, therefore any trees to be removed along Bell Road would be limited in number and would take place at defined locations where the road alignment cannot be changed to avoid them. Improvements for the trail expansion project, including overlooks, bridges, restrooms, picnic tables, benches, etc. would be sited during final design to avoid native trees larger than 5 inches dbh when feasible.

At full buildout of the Harvego trailhead, the aesthetics along segments of Curtola Ranch Road would be changed permanently from a narrow, gravel road to a 20-foot wide, paved road in order to safely accommodate vehicles. The widening would require encapsulation of a small canal, select tree and brush removal where necessary to accommodate the roadbed, and placement of soil to create a fill slope to support the expanded road width. While these changes would be a permanent change to the visual component of the road, the State CEQA Guidelines state that the proposed project would result in a potentially significant impact on visual resources if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway;
- substantially degrade the existing visual character or quality of public views of the site and its surroundings; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Curtola Ranch Road is not a scenic vista nor a state scenic highway, and although private views of the roadway may change substantially, this is not a threshold used by the CEQA Guidelines for determining level of impact. The improvements would not alter a ridgeline, remove large boulders, or substantially alter any prominent physical feature that defines the viewshed experienced by the motorist traveling along a public road. Therefore, while the trail expansion may result in changes to the visual character of the area, any such change would be limited in scope because the number of viewers with direct line of site to project modifications is limited, and proposed structures would be designed using natural materials and colors. Impacts at these locations are less than significant.

As discussed in the 2010 Certified EIR and summarized above in Section 7.1 “Findings of Fact”, the previously-approved second and third phases of the Garden Bar parking area (which have yet to be constructed) required widening of Garden Bar Road to 18 feet and 20 feet, respectively, with the associated removal of oak trees along Garden Bar Road. Although mitigation was to be implemented, the impact to visual resources along Garden Bar Road was determined within the 2010 Certified EIR to be significant and unavoidable. Because Phases 2 and 3 are included within the proposed 2019 HFRP Trails Expansion project, there would still be a **significant and unavoidable** impact to visual resources along Garden Bar Road with the currently proposed project. The proposed trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

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| IMPACT 7-4 | Visual Resources—Increased Light and Glare. *Proposed parking could include lighting near the restrooms, maintenance buildings and the ranch house at the west end of HFRP. Lights at the existing residence on the Twilight Ride property would remain. However, the lighting in the proposed new parking areas would be minimal and would be consistent with the existing surrounding lighting.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

Lighting associated with the HFRP project was considered in the 2010 HFRP certified EIR. That analysis covered lighting at buildings, including the caretaker's residence, restrooms, bunkhouse, and existing ranch house. Security lighting was also proposed at the parking lot. No other lighting was to be constructed as part of the HFRP project. Security lighting and lighting used at the caretaker's residence was determined to be like that that used by the previous occupant of the ranch house. All lighting introduced by the HFRP was anticipated to be like the brightness and scale of lighting currently used at existing nearby residences. The analysis indicated the lighting to be used on the HFRP was low wattage and would be directed downward to minimize excess glare or skyglow. Occasional campfires at the ranch house site were also identified as a new source of nighttime lighting; however, the lighting was considered minimal and would be limited to the camp area within the facility development zone. While recognizing operation of the HFRP would introduce a small amount of lighting, the application of low wattage lights and fixtures that meet glare-minimizing design criteria would reduce the potential for nighttime glare and skyglow in the project area to **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Like the existing HFRP, the expansion areas would close at dusk and the entrance gates to the parking areas would be closed and locked nightly. The trail system would not include any lighting and the parking lots would not contain lighting except for minimal security lighting near the restrooms. The single-family residence on Twilight Ride currently receives power service and uses lighting for residential occupancy and security. The HFRP Trails Expansion project would use lighting sources similar in brightness and scale to that used by existing rural residences in the surrounding area. All lighting used at the proposed parking areas would be low wattage and directed downward to minimize excess glare or skyglow. Recognizing the small amount of additional lighting and the glare-minimizing design criteria, the potential for nighttime glare and skyglow in the project area would be **less than significant**.

The proposed trails expansion would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

## 7.5 MITIGATION MEASURES

Mitigation Measure 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts *(applies to Impact 7-3)*

To address the potential degradation of visual quality resulting from tree removal, the County shall revegetate and restore all disturbed areas. Revegetation undertaken between April 1 and October 1 shall include regular watering to ensure adequate initial growth. To the extent feasible, restoration of trees and shrubs shall reduce visual impacts for affected properties. Revegetation of disturbed areas shall promote restoration of vegetation over time that is as consistent as feasible with the surrounding natural landscape, recognizing constraints of the right-of-way and available space. The County shall prepare a restoration and revegetation plan that implements actions intended to mitigate the impacts on trees and vegetation removed along Garden Bar Road. The plan will be prepared in conjunction with detailed roadway engineering design, so that precise areas of disturbance are known, and the revegetation process can be coordinated with roadway implementation. Portions of the revegetation plan may be implemented on adjacent property outside the County road right-of-way by agreements with willing property owners.

Mitigation Measure S12-7: Protect Oak Woodland Habitat (see Section 12.1.2 in Chapter 12.0, "Biological Resources) *(applies to Impact 7-3)*

If removal of native trees larger than 5 inches dbh is required during construction of the proposed project, the County shall compensate for removal of those trees by paying in-lieu fees into the County approved oak woodland preservation fund as stipulated in the Placer County Tree Ordinance and in consultation with a certified arborist.

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# 8.0 TRANSPORTATION AND CIRCULATION

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified EIR transportation and circulation findings; describes the existing HFRP and proposed trail network expansion project area (project area) environmental setting (existing roadway network, bikeways, bridges, and parking facilities) and pertinent regulations; evaluates project-related impacts associated with transportation and circulation; and provides mitigation measures as necessary to reduce those impacts. The information and analysis in this section is a summary of the traffic impact study for the proposed project prepared by KD Anderson & Associates, Inc., in August of 2019 contained in Appendix D.

The June 4, 2018 Notice of Preparation for the Hidden Falls Regional Park Trails Expansion Project included in the "Project Elements" section the allowance for a limited number of privately-owned parking areas adjacent to the park boundaries. Subsequent to the preparation of the traffic impact analysis prepared by KD Anderson and Associates, Inc., which included 60 privately-owned parking spaces within the overall traffic calculations, the project description was updated to reflect the elimination of the private parking option. These privately-owned parking areas are therefore not part of the HFRP Trail Expansion Project (see Chapter 3.0, Project Description) evaluated in this SEIR and a refinement of parking numbers is reflected in the other chapters of this SEIR. However, the trip volumes used in the traffic analysis conservatively retain the assumption of 60 spaces on private lands around the entries. In addition, the number of parking spaces proposed at the Garden Bar 40 and Harvego Bear River Preserve access locations have been fine-tuned through the site planning process. The assumption of the extra 60 parking spaces was retained for consideration in the traffic evaluation because it presents a conservative analysis that considers a circumstance where more trips travel on the roads than under the proposed project.

In addition, at the August 14-15, 2019 meeting of the California Transportation Commission (CTC), the SR 49 Safety Improvements Project was approved for inclusion in the 2018 State Highway Operation and Protection Program (SHOPP). The project description states "Near Auburn, from 0.3 mile south of Lorenson Road/Florence Lane to 0.3 mile north of Lone Star Road, construct concrete median barrier and two roundabouts." The programming includes $26,340,000 in project funding and anticipates construction beginning in 2022. An initial allocation of $1.5 million in funding for the Project Approval & Environmental Document (PA&ED) phase was also approved as part of the CTC agenda. However, as the project was not fully funded at the time of the Notice of Preparation for the Hidden Falls Regional Park Trails Expansion Project, it was not assumed under cumulative conditions.

Additionally, in late 2018, the Secretary of the Natural Resources Agency promulgated and certified CEQA Guidelines Section 15064.3 to implement Public Resources Code (PRC) Section 21099(b)(2). Public Resources Code Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In response to PRC 21099(b)(2), CEQA Guidelines Section 15064.3 notes that "Generally, vehicle miles traveled is the most appropriate measure of transportation impacts." The Guidelines section further states that although a lead agency may elect to be governed by this section immediately, lead agencies are not required to utilize VMT as the metric to determine transportation impact until July 1, 2020. The inconsistency between the implementation

date of July 1, 2020 allowed by the Guidelines and the requirement of PRC 21099(b)(2) to no longer use congestion metrics creates a gap or "interim" period when use of traffic congestion metrics is no longer allowable; however, the lead agency may not yet have an established VMT threshold(s), as is currently the case for Placer County.

A recent court case (*Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609) attempted to add clarity to the timing issue surrounding the transition between transportation impact metrics. The court ruled that although CEQA Guidelines section 15064.3, requiring use of VMT as the transportation impact metric, does not apply until July 1, 2020, Public Resources Code Section 21099(b)(2) is already in effect. As a result of the ruling, although lead agencies are not yet required to analyze transportation impacts under the VMT metric, they can no longer draw a transportation impact significance conclusion solely through a metric that measures traffic congestion (e.g., level of service (LOS)). While this chapter focuses primarily on the traffic congestion effects of the proposed project, LOS is not considered a significant impact on the environment. The LOS data is included at the end of this chapter as additional information only. The transportation impacts of the proposed project are evaluated using VMT as the metric. However, Placer County has not yet established a VMT threshold, and is not required to do so until July of 2020.

## 8.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 CERTIFIED EIR

As discussed in Section 1.2, this SEIR will consider the impacts of the HFRP Trails Expansion and compare it against the analysis contained in the 2010 HFRP certified EIR. The purpose is to determine whether the Trail Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, result in a new impact not previously identified, or require application of mitigation measures that were previously found infeasible, and were therefore not adopted for the prior project, are currently feasible and should be incorporated into project approvals.

### 8.1.1 FINDINGS OF FACT – 2010 HFRP EIR

Chapter 8, “Transportation and Circulation” of the 2010 HFRP Certified EIR included a detailed discussion of the park transportation and circulation environmental and regulatory setting, potential impacts associated with transportation and circulation resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts. The following is a summary of the 2010 Certified EIR findings.

- Although local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks during HFRP construction, this increase in traffic would be temporary and not expected to be substantial in relation to the existing traffic load and capacity of area roadways. Therefore, the impact was considered **less than significant**.

- Additional automobiles and trucks with equestrian trailers entering and exiting the proposed HFRP entrance via Garden Bar Road could cause an increase in traffic impacts in the HFRP area. HFRP project construction included improvements to Garden Bar Road and the HFRP entrance at Garden Bar Road in three phases. The entrance would be designed for safe ingress and egress of trucks and trailers. Public automobile and bus access to HFRP via Garden Bar Road would be allowed with Phase 2 improvements. However, truck and trailer access would not be allowed until after completion of Phase 3 (final) improvements. Because the improvements to the road and the park entrance would be completed before trucks and trailers would be allowed to access the park from Garden Bar Road, this impact was considered **less than significant**.

- The HFRP project would add additional vehicle trips to the local roadways. However, the projected traffic increase would not result in conditions in excess of adopted standards at local intersections or on individual roadway segments. Therefore, this impact was determined to be **less than significant**.

- Reservation-based events at HFRP could cause an increase in automobile, truck, and bus traffic in addition to regular HFRP use. Although use of Garden Bar Road by buses and/or delivery trucks during events could significantly impact traffic flow along the road, the County's implementation of traffic control measures during peak reservation-based events, including restrictions on event days and hours, and the number and types of vehicles, reduced the impact to **less than significant**.

- Because parking areas would be provided on both sides of HFRP and the sizes of the parking areas were expected to be adequate to accommodate HFRP users, and events that could exceed the capacity of the parking areas would be required to undergo separate environmental review that would require measures to ensure adequate parking, this impact was considered **less than significant**.

- The proposed park trail system would have several access points to provide adequate access for emergency response vehicles and personnel within HFRP. Because the proposed project would not interfere with any emergency response routes and would provide adequate emergency access on-site, this impact was determined to be **less than significant**.

### 8.1.2 HFRP Mitigation Measure Adopted by the County in 2010

Implementation of the following mitigation measure, which was adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on transportation and circulation to less than significant.

**Mitigation Measure 8-1**: **Implement Traffic Control Measures During Park Reservation-based Events.**

Reservation-based events (involving less than 200 people on-site at a given time) would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

- Event start and end times so as to minimize impacts to traffic along Garden Bar Road and not to exceed peak usage capacity or coincide with scheduled use of the road by school buses;

- Regulation of number and types of vehicles so as not to exceed parking capacity (i.e., 50 paved stalls and 20 truck and trailer gravel stalls) in combination with daily use; and

- The range of vehicle sizes allowed on Garden Bar Road during Phases 1 and 2 to be determined by the County Department of Public Works. Vehicles exceeding the maximum unrestricted size on Garden Bar Road shall be subject to County-imposed traffic controls.

The County may also regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary.

## 8.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The setting for this Subsequent EIR describes the transportation and circulation related environmental conditions of the proposed HFRP Trails Expansion project. See Chapter 8.0 "Transportation and Circulation" of the 2010 HFRP EIR for information about the existing HFRP.

### 8.2.1 ROADWAYS

Regionally, the HFRP trail expansion areas are served primarily by various rural Placer County roads and state highways which connect Lincoln and SR 65 to the west, Interstate 80 and the Rocklin/Loomis area to the south and the Auburn area and SR 49 to the east. Regional roads such as Mt. Pleasant Road, Garden Bar Road, Mt. Vernon Road, Big Ben Road, Wise Road, Riosa Road, McCourtney Road, Fowler Road, Fruitvale Road, and Gold Hill Road will link the site with SR 65 to the west and SR 193 to the south, while Bell Road, Lone Star Road and Cramer Road link the property with SR 49 to the east. Locally, traffic traveling to the site may use various local roads to access HFRP and the trail expansion areas. The permitted (but not yet constructed) HFRP access off of Garden Bar Road can be reached via Mt. Pleasant Road and Garden Bar Road.

State highways serving the project area are described below:

- **Interstate 80 (I-80)** is the primary east-west arterial across Placer County and Northern California. Near the project, I-80 is a six-lane controlled access freeway. Access to the HFRP trail expansion areas from Interstate 80 is from the Bell Road/I-80 intersection.

  The California Department of Transportation (Caltrans) provides annual reports of the volume of traffic on the state highway system. Recent counts available from Caltrans report an *Annual Average Daily Traffic (AADT - 2016)* volume of 85,500 vehicles per day on I-80, west of the SR 193 junction, 88,700 between SR 193 and Ophir Road and 88,300 AADT east of the Ophir Road interchange. (Caltrans 2016).

- **State Route 193 (SR 193)** is an east-west route that connects the City of Lincoln with I-80 across the study area. SR 193 originates in Lincoln and becomes SR 193 roughly 1.4 miles west of the Sierra College Boulevard intersection. SR 193 continues from that point east to I-80. Near the proposed project, SR 193 is a two-lane conventional highway. Caltrans data indicate that in 2016, SR 193 carried 9,500 AADT west of Sierra College Blvd and 5,000 AADT between Sierra College Blvd and Newcastle. Trucks comprised nine (9) percent of the daily traffic on SR 193 east of Sierra College Blvd (Caltrans 2016).

- **State Route 49 (SR 49)** is a principal arterial that is the primary north-south route through the Auburn – North Auburn area. SR 49 links I-80 with the Grass Valley – Nevada City area to the north. Through North Auburn SR 49 is generally a 4 – 6 lane conventional highway with a continuous center two-way left-turn (TWLT) lane or median. From the Dry Creek Road/SR 49 intersection to Lone Star Road, SR 49 is a 4-lane rural highway constructed with a continuous center TWLT.

  Caltrans traffic counts indicate that in 2017, SR 49 carried an *Annual Average Daily Traffic (AADT)* volume of 34,700 vehicles per day north of the Bell Road intersection, with the volume reported to be 32,000 AADT in the area of the proposed project north of Dry Creek Road and 30,700 AADT in the area of

Lorensen Road to the Nevada County line. Caltrans data indicates that trucks comprised six (6) percent of the Daily traffic on SR 49 in the area of the project.

- **State Route 65** (SR 65) is an important north-south route west of HFRP that extends from I-80 to its northern terminus at a junction with SR 70 in Yuba County. SR 65 is a four or six-lane controlled access freeway in the urban Rocklin / Roseville area and continues that configuration through Placer County to the City of Lincoln. Beyond West Wise Road SR 65 is a two-lane expressway or conventional highway to a location north of Wheatland where a four-lane controlled access freeway is again available.

  The most recent traffic counts published by Caltrans indicate that in 2017, SR 65 carried 117,400 AADT north of I-80 with 76,800 AADT north of the Blue Oaks Blvd – Washington Blvd interchange and 21,700 AADT at the Placer County – Yuba Countyline. Trucks comprise 15 percent to 20 percent of the daily volume on SR 65.

The Placer County roadways addressed in this analysis are those most likely to carry expansion traffic or were previously investigated in the prior HFRP EIR. The roads listed below provide access to the existing HFRP and would provide access to the HFRP trail expansion areas, if approved.

- **Mt. Pleasant Road** is a local east-west road that extends for approximately three miles linking Big Ben Road and Mt. Vernon Road.
- **Mt. Vernon Road** is a rural collector road that extends easterly from an intersection on Wise Road for about 7 miles into the City of Auburn.
- **Mears Drive** is a local road that connects the existing portion of HFRP with Mt. Vernon Road.
- **Garden Bar Road** is a local road that extends north from an intersection on Fruitvale Road across Mt. Pleasant Road along the west side of the HFRP for approximately three miles to the Nevada County line.

The following public roads are generally located in the area east of the proposed HFRP Trails Expansion project.

- **Bell Road** is a rural collector road that extends from an intersection on SR 49 north-westerly to Lone Star Road.
- **Lone Star Road** is a local road that connects SR 49 with Auburn Valley Road and the north end of Bell Road.
- **Cramer Road** is a local road that links Bell Road and SR 49.

The following private roads exist in the area near the proposed HFRP Trails Expansion project and would provide access to the new park facilities within the Harvego Bear River Preserve. The County has rights of public access to these roads through either an offer of dedication or easements:

- **Auburn Valley Road** is a private road that extends west from Bell Road to provide access to Auburn Valley Country Club and to an existing residential neighborhood.

- **Curtola Ranch Road** is a local road that extends north from Auburn Valley Road towards the northern portion of the HFRP Trails Expansion area. Three existing residences as well as other parcels are accessed off of Curtola Ranch Road.

### 8.2.2 EXISTING VEHICLE MILES TRAVELED

VMT is a measure of transportation network use. It is causally related to fuel consumption and is routinely used as an input for estimating air pollution emissions, greenhouse gases, and energy consumption for environmental impact purposes. It can be calculated by multiplying all vehicle trips generated by their associated trip lengths or by multiplying traffic volumes on roadway links by the associated trip distance of each link. However, in this "interim" period, the following qualitative discussion of VMT has been provided.

The existing park and project area are located within western Placer County on land designated primarily as Agriculture/Timberland in the Placer County General Plan. This designation generally corresponds with zoning which allows for Open Space, Farm, and Residential-Agricultural land uses. The growth in these areas in generally low, due to the large minimum parcel sizes and land use types.

The project is located within an area that was not identified for development within the 2020 MTP/SCS planning period. According to the MTP/SCS these areas are dominated by commercial agriculture, forestry, resource conservation, mining, flood protection or a combination of these uses. Some have long-term plans and policies to preserve or maintain the existing "non-urban" uses; however, some are covered under adopted or proposed plans that allow urban development and/or are included in the adopted Blueprint vision for future growth.

The approximately 2,765 acres of land included as part of the proposed Park Expansion project is generally undeveloped. Low intensity agricultural uses (i.e. cattle grazing) occur on portions of the proposed expansion area and there is one existing single-family dwelling. As such, the existing VMT to and from Park Expansion area is negligible.

The existing park operations, which were approved by the County in January of 2010, are not considered to be part of the project description for the proposed Park Expansion. Therefore, VMT resulting from the existing park is part of the baseline VMT. Using the data collected from the parking reservation system, the existing park currently generates approximately 18,000 VMT on a peak weekend.

### 8.2.3 PEDESTRIAN/BICYCLE FACILITIES

The status of existing facilities for pedestrians, bicycle and transit users have been evaluated based on identification of existing facilities and review of planned programs and improvements.

#### TRANSIT SERVICES

***Placer County Transit (PCT)*** provides bus service to most of the urbanized south Placer County area, but services are limited in the rural study area addressed by this analysis. The Auburn Station on Nevada Street in the City of Auburn is the hub for service in Western Placer County. PCT's *Taylor Road Shuttle* travels between Auburn and Sierra College in Rocklin, and this route follows Ophir Road between Auburn and the Ophir Park-&-Ride lot on I-80. This route provides service Mondays through Saturdays from 6:40 a.m. to 8:20 p.m. However, stops on Ophir Road are by reservation only. The SR 49 route follows the state highway north from The Auburn

Station to the Placer County Government Center on Bell Road and Chana High School on Richardson Drive south of Dry Creek Road. This service runs Monday through Saturday from 4:35 a.m. to 7:30 p.m. None of these routes are near the trail's expansion areas.

### Bicycle Facilities

The 2018 Update to the *Placer County Regional Bikeway Plan* (Bikeway Plan) provides the most current information regarding location of existing and planned bicycle facilities in the County.

The Bikeway Plan notes that there are four types of bikeways defined by Chapter 1000 of the Caltrans Highway Design Manual (2017).

- **Class I Bikeway (Bike Path).** Bike paths or share-use paths provide a completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal vehicle crossflows. Motorized vehicles are not allowed on Class I Bike Paths.
- **Class II Bikeway (Bike Lane).** Bike lanes are on-street bikeways that provide a designated right of way for the exclusive or semi-exclusive use of bicycles. Through travel by motor vehicles or pedestrians prohibited, but vehicle parking and crossflows by pedestrians and motorists are permitted.
- **Class III Bikeway (Bike Route).** Bike routes provide a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III Bike Routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Shared-lane markings ("sharrows") can be used on roadways with a posted speed limit of 35 mph or less to provide an additional alert to drivers of the shared roadway environment with bicyclists.
- **Class IV Bikeway (Separated Bikeway).** Separated bikeways provide a physical separation from vehicular traffic. This separation may include grade separation, flexible posts, planters, or other inflexible physical barriers, or on-street parking. This class of bikeway has not yet been implemented in Placer County.

### Existing Bicycle Facilities

The Bikeway Plan noted the presence of existing bicycle facilities and this information has been described for the project area in Table 8-1. Dedicated bicycle facilities are rare in the project area.

The Bikeway Plan notes the presence of recreational cyclists on many rural roads and identifies High-Use Recreational Routes. Nearly all project area roads fall under this classification.

### Planned Bicycle Facilities

The Bikeway Plan describes facilities that may be developed in the future and notes "priority," with those facilities that would be expected be constructed first having higher scores. Projects with larger numbers rank higher in priority due to scoring criteria based upon regional significance, overall connectivity, likelihood of grant support, disadvantaged community service, severity-weighted crash frequency and public outreach support. This information has been described for the project area in Table 8-2.

**Table 8-1. Existing Study Area Bicycle Facilities**

| Road | Location | Facility Designation |
|---|---|---|
| SR 193 | Oak Tree Lane to Lincoln City limit | Class II |
| Ophir Road | Newcastle to I-80 | Class II |
| English Colony Road | Penryn Elementary School to UPRR | Class III |
| Auburn Folsom Road | Auburn to Douglas Blvd. | Class III |
| Bell Road | SR 49 to I-80 | Class II |
| Lozanos Road | Adjoining Ophir Elementary School | Class III |
| Meadow Vista Road | Placer Hills Road to Pine Cone Lane | Class III |
| Richardson Drive | Joeger Road to Dry Creek Road | Class III |

Source: Compiled by KD Anderson & Associates, Inc. in 2019
I-80 = Interstate 80
SR = State Route
UPRR = Union Pacific Railroad

**Table 8-2. Future Study Area Bicycle Facilities**

| Road | Location | Facility | |
|---|---|---|---|
| | | Designation | Priority |
| SR 193 | Lincoln to Newcastle | Class II | 4 |
| Ophir Road | Newcastle to I-80 | Class II | existing |
| Atwood Road | Mt. Vernon Road to SR 49 | Class II | 4 |
| Bell Road | Lone Star Road to Joeger Road | Class III | 2 |
| Bell Road | Joeger Road to I-80 | Class II | 8 |
| Cramer Road | Bell Road to SR 49 | Class III | 0 |
| Dry Creek Road | Joeger Road to SR 49 | Class II | 6 |
| English Colony Way | Sierra College Blvd to school | Class III | 3 |
| English Colony Way | School to Taylor Road | Class II | 4 |
| Fowler Road | SR 193 to Virginiatown Road | Class III | 2 |
| Garden Bar Road | Wise Road to Mt. Pleasant Road | Class II | 1 |
| Garden Bar Road | Mt. Vernon Rd to Hidden Falls Park | Class III | 1 |
| Gold Hill Road | SR 193 to Virginiatown Road | Class III | 4 |
| Horseshoe Bar Road | Loomis to Auburn Folsom Road | Class II | 5 |
| Joeger Road | Mt. Vernon Road to Bell Road | Class III | 2 |
| Joeger Road | Bell Road to Dry Creek Road | Class II | 3 |
| Joeger Road | Dry Creek Road to SR 49 | Class III | 3 |
| Lone Star Road | Bell Road to SR 49 | Class III | 0 |
| Lozanos Road | By Ophir Elementary School | Class III | existing |
| McCourtney Road | Lincoln to Wise Road | Class II | 2 |
| McCourtney Road | Wise Road to Camp Far West | Class III | 2 |
| Mears Drive | Hidden Falls Park to Mt. Vernon Road | Class III | - |
| Mt. Vernon Road | Wise Road to Mears Drive | Class III | - |
| Mt. Vernon Road | Mears Drive to Merry Knoll Road | Class II | 3 |
| Park Drive | Richardson Drive to Quartz Drive | Class II | 7 |
| Richardson Drive | Joeger Road to Dry Creek Road | Class III | existing |
| Richardson Drive | Dry Creek Road to Park Drive | Class II | 7 |
| Ridge Road | Gold Hill Road to Ophir Road | Class III | 4 |
| Virginiatown Road | Lincoln to Gold Hill Road | Class III | 2/4 |
| Wise Road | McCourtney Rd to Garden Bar Road | Class II | 1 |
| Wise Road | Garden Bar Road to Ophir Road | Class III | 3 |

Source: Compiled by KD Anderson & Associates, Inc. in 2019
I-80 = Interstate 80
SR = State Route

### 8.2.4 COLLISION HISTORY

Placer County has a robust Traffic Accident Analysis System (TAAS) in which traffic collision data is collected and reviewed on an annual basis. It is recognized that many roadways throughout the County do not conform to current design standards and guidelines; however, the fact that a roadway does not meet current design standards does not necessarily make safety improvements essential. Traffic and roadway engineering design standards and guidelines have evolved over many years; therefore, many roadways that do not display any safety deficiencies no longer meet the current standards simply due to the passage of time since their construction. Conversely, some roadways that meet current standards may display safety deficiencies. The TAAS recognizes that reconstructing all roadways that do not meet current design standards would be financially infeasible, and that doing so would expend funds to upgrade many roadways that operate safely. Through the TAAS program, locations for detailed engineering investigations are identified and improvements to facilitate safe travel for all modes, if necessary, are implemented on a regular basis.

Consistent with the TAAS guidelines, three-years of collision history (January 1, 2014 – December 31, 2016) was obtained for study area roadways. This information was reviewed, and roadway collision rates were calculated based on the number of collisions per Million Vehicle Miles (MVM) of travel. This method permits comparison of roadways carrying different traffic volumes. In addition, reference to average collision rates for several types of facilities is a helpful way to determine if a location is experiencing a higher than expected rate of collisions. Comparative collision rates are published by Caltrans based on statewide data, based on the formulas noted in Table 8-3.

**Table 8-3. 2010 Statewide Average Collision Rates**

| | Collisions per Million Vehicle Miles (MVM) | |
|---|---|---|
| **Rural** | | |
| 2-lane Flat – Rural ≤55 mph | 0.82 | +0.35/ADT |
| 2-lane Rolling – Rural ≤55 mph | 1.14 | +0.35/ADT |
| **Suburban (outside City limits, but classified as urban by FHWA)** | | |
| 2-lane Suburban < 45 mph | 2.39 | |
| 2-lane Suburban 45 – 55 mph | 1.32 | |

Source: Compiled by KD Anderson & Associates, Inc. in 2019
ADT = average daily traffic
FHWA = Federal Highway Administration
mph = miles per hour

As noted in Table 8-4, the study area roadways are generally experiencing collision rates at, or below, the comparative statewide average for their facility types. However, review of that data reveals that while Cramer Road has experienced only three collisions over this three-year time period, because the traffic volume is low, the accident frequency rate exceeds the statewide average for similar facilities by more than 10 percent.

Additional review of the collision history conducted for Cramer Road indicates that one collision occurred immediately west of the SR 49 intersection, where a motorist DUI hit a fixed object. A second collision occurred 1,000 feet west of Oak Hollow Lane and involved a head-on collision between a vehicle and a motorcycle who was proceeding on the wrong side of the road. Cramer Road is in a curve at this location. The third collision occurred 1,400 feet east of Oak Hollow Lane when the driver was eating and allowed the vehicle to run off the road and strike a fence. The information available for these three collisions is not indicative of a particular pattern of accident cause or location.

**Table 8-4. Collision Analysis (1/1/2014 - 12/31/2016)**

| Road Name | From | To | Length (miles) | Segment Related Collisions (3-year) | ADT | Collision Rate | Statewide Average |
|---|---|---|---|---|---|---|---|
| Ayers Holmes Road | Mt. Vernon Road | Wise Road | 0.9 | 0 | 412 | 0.00 | 1.99 |
| Bald Hill Road | Wise Road | Mt. Vernon Road | 2.1 | 2 | 1,309 | 0.66 | 1.32 |
| Baxter Grade Road | Wise Road | Mt. Vernon Road | 2.1 | 3 | 971 | 1.34 | 1.50 |
| Bell Road | Lone Star Road | Richardson Drive | 5.2 | 9 | 1,400 | 1.13 | 1.39 |
| Chili Hill Road | Lozanos Road | Gold Hill Road | 3.7 | 1 | 355 | 0.70 | 2.13 |
| Cramer Road | Bell Road | SR 49 | 1.6 | 3 | 558 | 3.07 | 1.77 |
| Crosby Herold Road | Fruitvale Road | Mt. Pleasant Road | 2.3 | 1 | 525 | 0.76 | 1.81 |
| Delmar Avenue | Sierra College Blvd | English Colony Way | 1.9 | 0 | 1,126 | 0.00 | 1.13 |
| Fowler Road | SR 193 | Virginiatown Road | 0.9 | 3 | 3,412 | 0.89 | 0.92 |
| Fleming Road | Gladding Road | McCourtney Road | 1 | 0 | 43 | 0.00 | 8.96 |
| Fruitvale Road | McCourtney Road | Gold Hill Road | 5.1 | 2 | 1,486 | 0.24 | 1.38 |
| Gold Hill Road | SR 193 | Wise Road | 2.4 | 2 | 1,542 | 0.49 | 1.37 |
| Lone Star Road | Bell Road | SR 49 | 1.8 | 1 | 1,328 | 0.38 | 1.40 |
| McCourtney Road | Wise Road | Big Ben Road | 1.8 | 1 | 1,192 | 0.43 | 1.11 |
| Millertown Road | Wise Road | Mt. Vernon Road | 2.3 | 0 | 510 | 0.00 | 2.39 |
| Mt. Vernon Road | Wise Road | Joeger Road | 4.8 | 13 | 2,021 | 1.22 | 1.31 |
| Mt. Vernon Road | Joeger Road | City of Auburn | 3.4 | 16 | 2,995 | 1.43 | 2.39 |
| Ridge Road | Gold Hill Road | SR 193 | 3.5 | 5 | 789 | 1.65 | 1.58 |
| Virginiatown Road | City of Lincoln | Gold Hill Road | 5.4 | 6 | 773 | 1.31 | 1.27 |
| Wise Road | McCourtney Road | Garden Bar Road | 2.5 | 5 | 2,575 | 0.71 | 0.96 |
| Wise Road | Garden Bar Road | Ophir Road | 9.7 | 14 | 1,394 | 0.95 | 1.39 |

**HIGHLIGHTED** values exceed statewide average by more than 10%
Source: Compiled by KD Anderson & Associates, Inc. in 2019
ADT = average daily traffic
SR = State Route

The Regional Bikeway Plan also presents information regarding bicycle related collisions that have occurred countywide from 2012 to 2016 (refer to Table 5 in the Bikeway Plan). A total of 74 collisions were identified, and the Bikeway Plan's Figure 20 illustrates the location of collisions. Review of that figure indicates that excluding incidents occurring on SR 49 in North Auburn, eight bicycle-related collisions occurred in the study area.

Within the study area, intersections on the State Route 49 corridor are of particular concern to the community. Caltrans and Placer County have discussed measures to improve safety by slowing the speed of traffic on SR 49 and controlling opportunities to access the state highway.

As discussed at the beginning of this chapter, the California Transportation Commission (CTC) approved inclusion of the SR 49 Safety Improvements project in the 2018 SHOPP with $26.3 million of funding. Construction of this project will improve LOS to meet the County's standards at the SR 49/Cramer Road intersection by restricting the turning movements at the intersection to right-in, right-out only; however, the Lone Star Road intersection with SR 49 will continue to experience a LOS that exceeds standards with installation of a roundabout. Roundabouts would slow traffic and provide a safe location for accessing the state highway. Motorists accessing the highway at locations between the roundabouts would be able to turn right and use the next roundabout to make a U-turn, rather than making left turns across high speed traffic. Any measure that involves

stopping traffic on mainline state highways is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires that an Intersection Control Evaluation (ICE) report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout. Because the project was not programmed or funded at release of the NOP, it was not assumed under cumulative conditions.

Placer County regularly monitors the status of its roads and takes corrective actions where needed. In the spring of 2016, the Department of Public Works and Facilities completed a Roadway Safety Sign Audit which recommends the replacement, relocation and installation of yellow warning signage at various locations on 62 roadways in Placer County. In November 2018, the Board of Supervisors authorized the *Roadway Safety Sign Audit and Sign Upgrade Project*. The need to complete this project is based upon safety analyses undertaken by the Department to identify high collision concentration locations that resulted in a safety evaluation of selected roadway corridors. This project undertakes to provide a systemic solution for these collision locations in the form of updating curve warning signage for the entire length of roadway. Current Caltrans standards as identified in the 2014 Manual of Uniform Traffic Control Devices (MUTCD) specify placement of new warning signs for roadway curves based upon the advisory speed of the curve, as well as replacement of signs due to the poor physical condition or lack of reflectivity of the sign. The scope of this project includes installation of approximately 1,800 new curve warning signs, relocation of 350 existing signs, replacement of 1,000 signs and removal of 1,300 signs along 62 County roadways. This project was completed during the 2019 construction season.

Study area roadways addressed by this safety project include:

- Bell Road from Lone Star Road to SR 49
- Joeger Road
- Mt. Vernon Road

## 8.3 REGULATORY SETTING UPDATE

### FEDERAL

There are no federal plans, policies, regulations, or laws related to transportation and circulation which are applicable to the proposed project.

### STATE

The California Department of Transportation (Caltrans) has primary responsibility for the State Highway system in California. This includes State Route (SR) 49 and its intersections with local streets. As such, the following Caltrans planning and policy document provides guidance on expectations for traffic operations.

#### Transportation Concept Report, State Route 49

Caltrans long range transportation planning process is directed at the maintenance, operation, management and development of the highway system. Caltrans, in partnership with the Nevada County Transportation Commission and the Placer County Transportation Planning Agency, prepared a study/update to identify operational improvements and deficiencies, bicycle route gaps, and user safety enhancements within Segments 10 and 11 of the SR 49 Corridor. The study identifies a project list to improve safety, reduce travel time and delay, and

improve connectivity. Improving accessibility and connectivity for all modes of transportation and maintaining or exceeding the minimum acceptable Level of Service (LOS) on each corridor segment are key issues for SR 49.

### Senate Bill 743

In late 2018, the Secretary of the Natural Resources Agency promulgated and certified CEQA Guidelines Section 15064.3 to implement Public Resources Code Section 21099(b)(2). Public Resources Code Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In response to PRC 21099(b)(2), CEQA Guidelines Section 15064.3 notes that "Generally, vehicle miles traveled is the most appropriate measure of transportation impacts." The Guidelines section further states that although a lead agency may elect to be governed by this section immediately, lead agencies are not required to utilize VMT as the metric to determine transportation impact until July 1, 2020. The inconsistency between the implementation date of July 1, 2020 allowed by the Guidelines and the requirement of PRC 21099(b)(2) to no longer use congestion metrics created a gap or "interim" period when use of traffic congestion metrics is no longer allowable; however, the lead agency may not yet have an established VMT threshold(s), as is currently the case for Placer County.

A recent court case (*Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609) attempted to add clarity to the timing issue surrounding the transition between transportation impact metrics. The court ruled that although CEQA Guidelines section 15064.3, requiring use of VMT as the transportation impact metric, does not apply until July 1, 2020, Public Resources Code Section 21099(b)(2) is already in effect. As a result of the ruling, although lead agencies are not yet required to analyze transportation impacts under the VMT metric, they can no longer draw a transportation impact significance conclusion solely through a metric that measures traffic congestion (e.g., level of service (LOS)).

The standard of significance of VMT has not been established for Placer County. The County is currently working on an SB 743 Implementation Plan, which will establish standards of significance for VMT under CEQA analysis. Nonetheless, and in an abundance of caution, an assessment of VMT is provided. Per CEQA Guidelines Section 15064.7, Placer County can choose to apply thresholds from other CEQA lead agencies on an ad hoc basis. For example, the County could apply the recommended thresholds from the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research (OPR), December 2018). However, the Technical Advisory only recommends quantifiable thresholds for residential, retail, and office projects. The proposed project type does not align with any of the OPR recommended thresholds or screening criteria in the Technical Advisory. Therefore, Placer County cannot apply the recommended thresholds to the proposed project.

OPR's advisory document also identifies a potential approach which an agency could utilize as the basis for determining significant transportation impacts. Specifically, the OPR Technical Advisory recommends consideration of whether the project is consistent with the applicable Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The guidance aligns with CEQA Guidelines Section 15125(d), which requires that an EIR should discuss inconsistencies between the proposed project and the regional transportation plan. For the SACOG region, this consists of the Metropolitan Transportation

Plan/SCS (MTP/SCS). The proposed project would result in an increase in VMT above the assumptions in the MTP/SCS and is therefore inconsistent with the land use plan.

## 8.3.1 Local Plans, Policies, Regulations, and Ordinances

### Placer County General Plan

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for transportation and circulation issues **GOAL 3.D:** To provide a safe, comprehensive, and integrated system of facilities for non-motorized transportation.

- **Policy 3.D.1.** The County shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provides connections between the County's major employment and housing areas and between its existing and planned bikeways.
- **Policy 3.D.2.** The County shall work with neighboring jurisdictions to coordinate planning and development of the County's bikeways and multi-purpose trails with those of neighboring jurisdictions.
- **Policy 3.D.3.** The County shall pursue all available sources of funding for the development and improvement of trails for non-motorized transportation (bikeways, pedestrian, and equestrian).
- **Policy 3.D.4.** The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information.
- **Policy 3.D.6.** The County shall support the development of parking areas near access to hiking and equestrian trails.
- **Policy 3.D.8.** The County's Engineering and Surveying Division and the Department of Public Works shall view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers and recognize cycling, pedestrian, and transit modes as integral elements of the transportation system.
- **Policy 3.D.10.** Consider the accessibility and accommodation of cycle and pedestrian traffic, where appropriate, on and across major thoroughfares.
- **Policy 3.D.11.** The County shall work to achieve equality of convenience and choice among all modes of transportation – pedestrian, cycling, transit and motor vehicles, through a balanced and interconnected transportation system.
- **Policy 3.D.12.** Provide safe and comfortable routes for walking, cycling, and where feasible, public transportation, to encourage use of these modes of transportation, enable convenient and active travel as part of daily activities, reduce pollution, and meet the needs of all users of the roadway system.

## 8.4 IMPACTS

### 8.4.1 ANALYSIS METHODOLOGY

The following discussion evaluates impacts to transportation and circulation resulting from project implementation. This analysis also considers how construction and operation of the HRFP Trail Expansion project would or would not change the conclusions of the prior environmental review. Impacts on transportation and circulation that would result from the proposed project were identified by comparing existing VMT levels to VMT associated with implementation of the proposed project. The site plans developed for the four areas of the HFRP expansion project are depicted in Section 3.0 "Project Description" to this SEIR.

### 8.4.2 PROJECT PHASING PLAN

Each trailhead entry planned as part of the HFRP Trail Expansion is anticipated to be constructed in phases over time as funding is available.

It is important to note that parking space numbers in this chapter coincide with the traffic study and are used in this chapter for consistency with the traffic analysis. The numbers shown in this chapter and in the traffic, study are conservative numbers which include 60 parking spaces attributed to private parking facilities. The original project description in the June 2018 Notice of Preparation included up to 60 parking spaces attributed to private individuals creating commercial parking lots adjacent to HFRP. This provision was subsequently removed from the project description. However, as an additional margin of conservative traffic estimation, the 60 parking spaces were kept into the traffic impact analysis by KD Anderson & Associates, Inc. The Project Description and rest of the SEIR document therefore reflect the removal of the 60 spaces from the project.

Additionally, the final number of parking spaces provided at each of the project access points have been fine-tuned based on site specific characteristics and other considerations. The updated parking space numbers are included in various sections of this document including the Project Description (Section 3). However, the minor modifications did not necessitate updating the traffic impact analysis as the assumptions in the study remain conservative.

**Harvego Bear River Preserve area.** The Phasing plans include four phases:

- ***Phase 1*** – Creation of 17 regular and 1 ADA parking spaces with access limited to docent-led tours.
- ***Phase 2*** – 17 regular and 1 ADA parking spaces with access per reservations on a daily basis, with pull-outs.
- ***Phase 3*** – 102 additional regular spaces and 4 additional ADA spaces, for a total of 119 regular and 5 ADA spaces with access per reservations permit system on a daily basis with Curtola Ranch Road improved to 20-foot minimum pavement, except over the dam where staging locations at each end of the one lane section will be available.
- ***Phase 4*** – Addition of 10 equestrian spaces for a total of 119 regular, 5 ADA and 10 equestrian parking spaces with no additional road improvements beyond Phase 3.

**Garden Bar Road area.** The Garden Bar area was approved in 2010 with three phases linked to improvements to Garden Bar Road. While original Phases 2 and 3 remain as part of the project, a revised phasing plan is proposed

that further divides Phase 1 to more clearly defined utilization of this area in light of the reservation permit system.

The original HFRP Phasing Plan:

- ***Phase 1*** – Occasional use by "classroom sized groups" with access the site through the Garden Bar entrance with an appointment so that the gate could be opened to allow entrance. No other improvements to Garden Bar Road.

- ***Phase 2*** – Unrestricted access for 50 automobiles with improvements to Garden Bar Road based on 18-foot roadway width.

- ***Phase 3*** – Unrestricted access for 20 vehicles pulling equestrian trailers with improvements to Garden Bar Road based on 20-foot roadway width.

With the proposed HFRP Trail Expansion project, Phase 1 would be broken down into the following sub-phases:

- ***Phase 1-A*** – 30 parking spaces (25 regular and 5 ADA) used on weekends, holidays and other "high volume" days only, with a parking reservation required, with each parking space only allowed one reservation/day. Improved signing and pavement markings would be added on Garden Bar Road.

- ***Phase 1-B*** – Access to 30 (25 regular and 5 ADA) spaces on any day, with each space permitted to turnover as anticipated for the overall HFRP project on weekends and holidays (i.e., approximately 45 peak day permits issued/day). Special events would be permitted by using the allocated parking and permits. "Pull outs" would be installed at key locations on Garden Bar Road where existing right of way is available and where physical constraints make it possible to widen the road.

- ***Phase 1-C*** – Access to 30 spaces per Phase 1-B, plus the ability to concurrently accommodate a 200-person special event under a Special Event Permit Application (SEPA) required by the County Parks Division for special events. Special events shall be limited to 6 days per year.

- ***Phase 2*** – As approved with the 2010 Conditional Use Permit, access to a total of 45 regular and 5 ADA spaces (i.e., 83 peak day permits) under the overall HFRP reservation system limits, with originally-approved Phase 2 improvements.

- ***Phase 3*** – Access to a total of 45 regular, 5 ADA and 20 equestrian spaces (i.e., 116 peak day permits) with originally-approved Phase 3 improvements.

**Mears Drive area.** Additional overflow parking area sized to accommodate 25 vehicles would be constructed in a single phase.

**Twilight Ride area**. Two project phases are proposed.

- ***Phase 1*** – Access to 50 regular, 4 ADA spaces and 20 equestrian parking spaces, with parking reservation required only on weekends, holidays and other peak usage days with access as proposed.

- ***Phase 2*** – Access to a total of 96 regular, 4 ADA and 40 equestrian parking spaces under reservation system on weekends, holidays and other peak usage days with access as proposed.

### 8.4.3 OPERATING CHARACTERISTICS

**Parking / Reservation System Characteristics:** The amount of new vehicular traffic associated with the HFRP Trail Expansion project has been estimated based on current usage statistics, the number of parking spaces provided and the anticipated turnover characteristics of those spaces. The existing HFRP reservation system is assumed to continue on weekends, holidays and on peak usage days, and the number of parking permits that would be issued is also identified based on current demands and the amount of parking available at each phase. If demand changes over time, the reservation system would be modified to accommodate changing use. For example, if normal weekday demand begins to increase above capacity of the parking lot, reservations would be issued for weekday use.

Table 8-5 and Table 8-6 provide parking counts, maximum number of permits issued on daily basis, and the related vehicle trip generation rates developed for the HFRP are applied to the HFRP Trails Expansion project Saturday and weekday traffic characteristics, respectively. As shown in Table 8-5, 359 new parking spaces for autos and trailers would be constructed with buildout of the HFRP Trails expansion plus an additional 70 spaces

**Table 8-5. HFRP Expansion Saturday Trip Generation Estimate**

| Location | Parking Spaces | | | | Permits Available[1] | Trips per Permit | | | | Trips | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily | Saturday Peak | | | Daily | Saturday Peak Hour | | |
| | Regular | Equestrian | Handicap | Total | | | In | Out | Total | | In | Out | Total |
| **Proposed Project** | | | | | | | | | | | | | |
| Twilight Ride | 96 | 40 | 4 | 140 | 232 | | | | | 599 | 21 | 42 | 63 |
| Harvego Bear Rd | 119 | 10 | 5 | 134 | 222 | | | | | 573 | 20 | 40 | 60 |
| Mears | 25 | 0 | 1 | 25 | 42 | 2.58[2] | 33% | 67% | 0.27[3] | 108 | 4 | 7 | 11 |
| Private | 57 | 0 | 3 | 60 | 100 | | | | | 258 | 9 | 18 | 27 |
| Total | 297 | 50 | 12 | 359 | 596 | | | | | 1,538 | 54 | 107 | 161 |
| Trips caused by turn-away's without permit[4] | | | | | | | | | | 167 | 9 | 9 | 18 |
| Project Total | | | | | | | | | | 1,705 | 63 | 116 | 179 |
| **Prior Approval not yet Constructed** | | | | | | | | | | | | | |
| Garden Bar (Prior approval) | 45 | 20 | 5 | 70 | 116 | 2.58 | 33% | 67% | 0.27 | 299 | 11 | 20 | 32 |
| Trips caused by turn-away's without permit[4] | | | | | | | | | | 32 | 2 | 2 | 4 |
| Previously approved total | | | | | | | | | | 331 | 13 | 22 | 35 |
| **Total of Proposed Project Plus Prior Approval not yet Constructed** | | | | | | | | | | | | | |
| Total | 342 | 70 | 17 | 429 | 712 | | | | | 1,837 | 65 | 128 | 193 |
| Trips caused by turn-away's without permits[4] | | | | | | | | | | 199 | 11 | 11 | 22 |
| **Grand Total with turn-away's** | | | | | | | | | | **2,036** | **76** | **139** | **215** |

1 Based on 187 Saturday permits offered at Mears for 113 parking space capacity = 1.66 permits per space (135 issued)

2 Based on 348 daily trips at Mears divided by 135 permits issued on June 16, 2018 = 2.58 trips per permit (The observed daily volume includes the effects of automobile – trailer combinations with multiple axels that would overstate actual vehicle trips, as well as the effect of staff travel, but no adjustment has been made in order to produce a conservative estimate).

3 Based on observed peak hour percentage of daily and directional split observed at Mears entrance

4 Assume 1/3 the current turn-away rate observed at Mears due to increased knowledge of reservation system and improved cellular phone coverage. The current rate was 58 turn-away's out of 135 permits issued or 43%. One Third is 14%. Assume two daily trips per turn-away.

**Table 8-6. HFRP Expansion Weekday Trip Generation Estimate**

| Location | Parking Spaces | | | | Unit | Trips per Parking Space | | | | Trips | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily | PM peak | | | Daily | PM Peak Hour | | |
| | Regular | Equestrian | ADA | Total | | | In | Out | Total | | In | Out | Total |
| **Proposed Project** | | | | | | | | | | | | | |
| Twilight Ride | 96 | 40 | 4 | 140 | Space | 2.20[1] | 27% | 73% | 0.22[2] | 308 | 8 | 23 | 31 |
| Harvego Curtola Ranch Rd | 119 | 10 | 5 | 134 | Space | | | | | 295 | 8 | 21 | 29 |
| Mears | 25 | 0 | 0 | 25 | Space | | | | | 55 | 1 | 5 | 6 |
| Private | 57 | 0 | 3 | 60 | Space | | | | | 132 | 4 | 9 | 13 |
| Total | 297 | 50 | 12 | 359 | Space | | | | | 790 | 21 | 58 | 79 |
| **Prior Approval not yet Constructed** | | | | | | | | | | | | | |
| Garden Bar (Prior approval) | 45 | 20 | 5 | 70 | space | 2.20 | 27% | 73% | 0.22 | 154 | 4 | 11 | 15 |
| **Total of Proposed Project Plus Prior Approval not yet Constructed** | | | | | | | | | | | | | |
| Total | 342 | 70 | 17 | 429 | space | | | | | 944 | 25 | 69 | 94 |

[1] Based on each space turning over once each day plus 10% for ancillary travel = 2.20 trips per space

[2] Based on observed 10% in peak hour and directional split observed at Mears

that are part of the previously approved Garden Bar Road site would be available in the future. As noted above, subsequent to release of the NOP in 2018, the project was revised to remove the assumption that as a part of this Project description, private individuals would construct up to 60 additional spaces on private property. However, the traffic impact study prepared for the project retained the assumption of 60 private parking spaces to provide the reader with a conservative analysis of project impacts to operating conditions and safety on the rural roadways serving the area.

Including the 60 private parking spaces which were analyzed in the traffic impact analysis, the HFRP Trail Expansion Project would add 359 automobile spaces and the previously approved Garden Bar access will provide another 70 parking spaces for a total of 429 parking spaces.

The number of parking permits that would be issued by Placer County has also been identified. As of this writing, Placer County makes available 187 Saturday parking permits for the 113 regular and overflow spaces at the existing Mears Drive facility. The ratio of permits to spaces is 1.66 permits per space, and this ratio is assumed to continue in the future for the regular spaces created with the HFRP Trail Expansion project.

Altogether, a total of 712 parking permits have been assumed to be made available for the new expansion areas, in addition to the 187 permits already offered at the Mears Drive facility. For phases 1A and 1B at the Garden Bar entrance, the proposed project would regulate that parking reservations would be required seven days a week, instead of only on weekends, holidays and other peak usage days. For the Harvego Bear River entrance, Phase 1 would be restricted to once per day docent-led tours, and Phase 2 would require a reservation 7 days/week. It is expected that the Mears and Twilight Ride entrances would only require parking reservations on weekends, holidays and other peak usage days. The reservation system schedule would adapt to usage patterns and could result in reservations required during weekdays if demand warrants.

**Trip Generation Forecasts:** As noted in Tables 8-5 and 8-6, the daily and peak hour trip generation associated with use of new facilities has been estimated based on trip generation rates derived from observation of existing HFRP facilities. The current trip generation at Mears Drive parking area with the reservation system was compared to the number of available permits or parking supply and resulting trip generation rates were created on a "per permit" basis. The travel associated with turning away motorists who arrive without a permit has also been quantified based on current experience but recognizing that increasing familiarity with the reservation system (see Section 3.0 "Project Description") should reduce the number of "turn-aways" when the HFRP Trail Expansion project is completed.

**Daily Trips:** As indicated, the new elements of the HFRP expansion project are projected to generate 1,705 daily trips on Saturday and 790 daily trips on a weekday at full buildout. Use of the 70 spaces already approved at the Garden Bar Road site could result in another 331 Saturday and 154 weekday daily trips. The total daily trip generation associated with proposed and approved but not built uses totals 2,036 weekend and 944 weekday trips at full buildout. Again, these numbers are conservatively high numbers, as they reflect the inclusion of the private parking spaces which have been removed from the project description.

**Peak Hour Trips:** As shown in Tables 8-5 and 8-6, peak hour traffic volumes at HFRP are expected to be highest on Saturdays. The proposed uses would result in 179 Saturday peak hour trips, which when added to the 36 trips occurring at the approved Garden Bar Road site yields 215 new Saturday peak hour trips. On weekdays these estimates are 79 p.m. peak hour trips, an additional 15 p.m. trips from the Garden Bar Road site and an overall total of 94 p.m. peak hour trips.

**Trip Distribution:** Having determined the number of trips that are expected to be generated by the project, it is necessary to identify the directional distribution of project-generated traffic. Because HFRP is a regional attraction, many weekend visitor trips originate in the Sacramento / Roseville area, which is much larger than the local Auburn area, with lesser shares traveling from areas to the north and east. This analysis utilizes data collected from over 21,000 individual parking reservations at the existing HFRP made on weekends and holidays between 2017 and 2019. Home zip codes were used to determine the average trip length and percentage of visitors from each geographic area. The data is representative of weekend visitor trip distribution. The average trip length was developed by averaging the trip distance from the home zip code to the existing HFRP parking lot. Table 8-7 identifies the distribution assumptions made for this analysis, based on existing visitors to the park. Trip distribution during the week has indicated that the majority of visitors are from local areas.

**Table 8-7. Project Trip Length Assumptions – Peak Saturday**

| To/From | Percent of Total Visitors | Average Trip Length (miles) |
|---|---|---|
| Auburn Area | 6% | 8.4 |
| Placer County (outside Auburn) | 31% | 19.7 |
| Adjacent Counties | 52% | 37.4 |
| Beyond Adjacent Counties | 11% | 108.4 |

Source: Parking Reservations 2017-2019

### 8.4.4 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on traffic or circulation if it would:

- conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- cause a substantial increase in hazards attributable to a geometric design feature or incompatible uses; or
- result in inadequate emergency access.

As mentioned above, there are no transit facilities, light rail, or airport facilities in the project vicinity; therefore, the proposed project would not have an impact on any of these types of facilities. The proposed HFRP Trail Expansion project would not conflict with any policies supporting alternative transportation. Because the proposed HFRP Trail Expansion project would have no impact on these resources, they are not discussed further in this chapter.

Public Resources Code section 21099, subdivision (b)(2) states that automobile delay, as described solely by level of service, shall not be considered a significant impact on the environment. In addition, the thresholds of significance contained in CEQA Guidelines 15064.3 do not apply until July 1, 2020, and Placer County has not elected to be governed by the provisions of that section prior to the July 1, 2020 date. For those reasons, the EIR's discussion of Level of Service Standards is included, but not for purposes of establishing a threshold of significance. In an abundance of caution, this EIR does contain a VMT analysis that discusses VMT levels, however, the County has not adopted a threshold of significance and the project is inconsistent with the MTP/SCS.

### 8.4.5 IMPACT ANALYSIS

| | |
|---|---|
| IMPACT 8-1 | Conflict with an adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities —Temporary Increase in Traffic during Construction. *During construction of the trail system and related components, local roadways would experience an increase in traffic from daily commutes by construction workers and delivery trucks. However, this increase in traffic would be temporary and is not expected to be substantial in relation to the existing traffic load and capacity of area roadways.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP certified EIR evaluated the effect of vehicle trips generated during construction and operation. The maximum number of workers commuting to the project area at any given time was estimated at four 15-person California Conservation Corps crews and 10–15 other workers/delivery drivers. It was anticipated that the crews would commute in four vans, one per 15-person crew. Construction of the trail system and associated recreational facilities was expected to generate a total of 400 delivery trucks over the duration of project construction (i.e., several years) to/from the project area.

The analysis found the local roads providing access to the HFRP were operating at LOS C or better at that time, and that this increase in traffic would constitute a temporary and very small increase in traffic and would not be substantial in relation to existing traffic load and capacity of Mt. Vernon Road, Mears Drive, Mt. Pleasant Road, or Garden Bar Road. In addition, this increase in traffic would be intermittent with the active periods of construction. Therefore, this impact was found to be **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

During construction of the proposed project, there would be a temporary increase in construction-related traffic from delivery trucks and construction workers traveling to and from the project area. The number of workers would vary over the life of the construction activity. The maximum number of workers who would be commuting to the project area at any given time is conservatively estimated to be four 15-person California Conservation Corps crews and 10–15 other workers/delivery drivers. It is anticipated that the crews would commute in four vans, one per 15-person crew. Therefore, it is expected that the maximum number of vehicle trips generated in any one day would be four vans and 10–15 other worker/delivery vehicles.

This would be in addition to ongoing daily trips generated by County maintenance staff and County contractors including park rangers. Carpooling amongst construction workers would be encouraged by the County to reduce the number of vehicle trips to the extent possible. Construction of the trail system and associated recreational facilities is expected to generate a total of approximately 400 delivery trucks over the duration of project construction (i.e., over a number of years), to haul needed materials (e.g., concrete and lumber) to and from the project area. For Phase 1 of construction, truck traffic is expected to be approximately 10–20 percent of the total number of truck trips (i.e., 40–80 truck trips).

Because the local roadways providing access to the project area are currently operating at LOS C or better, this increase in traffic would constitute a temporary and very small increase in traffic and would not be substantial in relation to existing traffic load and capacity of Mt. Vernon Road, Mears Drive and Mears Place, Mt. Pleasant Road, Garden Bar Road, Bell Road, Cramer Road, Lone Star Road, Auburn Valley Road and Curtola Ranch Road. Similarly, the VMT generated by the construction traffic would constitute a temporary and very small increase in VMT and would not be substantial in relation to the existing VMT of Placer County. In addition, this increase in traffic would be intermittent with the active periods of construction. Therefore, this impact would be **less than significant**.

The proposed trails expansion would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects related to temporary construction traffic based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 8-2 | Conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities— Existing Plus Project Conditions. *The proposed project does not conflict with any adopted program, plan, ordinance or policy under Existing Plus Project conditions.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The analysis found the addition of project trips would not result in any individual roadway segments or additional intersections operating with a Level of Service that fell below the adopted minimum standard. Therefore, this impact was found to be **less than significant**.

### 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

As discussed above, LOS is no longer considered to be a significant impact in CEQA analysis. However, the traffic operations analysis is presented in Section 8.6 below for reference. The proposed project does not conflict with any adopted program, plan, ordinance, or policy under existing plus project conditions. Therefore, this impact was found to be **less than significant**.

| | |
|---|---|
| IMPACT 8-3 | Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b). – *The addition of project traffic does result in an increase in vehicle miles traveled. Since no threshold has been established by the County and the proposed project is inconsistent with the MTP/SCS, the increase in VMT is considered significant.* |
| Significance | *Significant* |
| Mitigation Proposed | *None Feasible* |
| Residual Significance | *Significant and Unavoidable* |

### 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

VMT was not considered as a metric in CEQA when the 2010 HFRP EIR was prepared and certified in January 2010. VMT is not required to be assessed in CEQA documents until July 1, 2020 However, an assessment of VMT is provided below.

## 2019 HFRP CERTIFIED EIR IMPACT SUMMARY

Implementation of the proposed project will result in new daily vehicle travel, which would add VMT to the study area. For this project, VMT is calculated by multiplying the total number of trips generated from the project site by the average trip length of each trip. VMT is typically calculated for a typical weekday or peak travel day. The proposed project is anticipated to generate 2,036 daily trips on a Saturday and 944 daily trips on a typical weekday, as shown in Tables 8-5 and 8-6 above. The average trip lengths and trip distribution for a peak Saturday are expected to be similar to the existing park, as shown in Table 8-7 above.

VMT estimates for a peak Saturday were developed by multiplying the trip generation by the average trip length and the average trip distribution percentages for each geographic area where visitors originate from. VMT for each geographic area is then summed to generate the VMT estimate for the project for a peak Saturday. The analysis indicates that the project would generate approximately 78,000 VMT on a peak Saturday. To put that in context, the existing HFRP generates approximately 18,000 VMT on a peak Saturday. Therefore, the proposed project would result in a substantial increase in VMT over the existing park operations.

VMT estimates for a typical weekday are not available, because the County does not require parking permits on weekdays. However, informal surveys of visitors to the park on typical weekdays indicate most visitors are from the Auburn area or local to Placer County. Additionally, trip generation on a typical weekday is about half the trip generation on a peak weekend day. Therefore, it can be assumed that VMT on a typical weekday is substantially less than the peak weekend day.

Additionally, the proposed project is located within an area designated as “Lands not Identified for Development” in the 2020 MTP/SCS. The MTP/SCS is aimed at reducing greenhouse gas emissions through VMT reduction, and these efforts are primarily focused on urban areas, where investments in the roadway system and transit, bike, pedestrian infrastructure are built into the MTP/SCS to achieve identified air quality targets. According to the MTP/SCS, “Lands not Identified for Development” areas are typically located outside of urbanized areas and designated in local land use plans for no further development. Travel occurs almost exclusively by automobile, as transit service is minimal or nonexistent.

Figures 3-10 and 3-11 of the 2020 MTP/SCS show the 2016 and projected 2040 vehicle miles traveled per capita for the six-County SACOG region. The sub-region in which the project is located is shown as having both now, and in the future, greater than 150% of the regional average VMT per capita. Additionally, these areas are recognized as having high VMT per capita both now and in the future (2040 MTP/SCS Planning Period). The proposed project would further increase VMT above the assumptions in the MTP/SCS. Thus, it can be concluded that the potential increased activity associated with the proposed project would conflict with the MTP/SCS' strategy for reducing VMT through investments in roadway and multi-modal infrastructure primarily in urban areas.

The County does not have an established threshold for VMT and is not required to have a threshold in place until July of 2020, but because the project generates additional VMT beyond the baseline condition and it is not consistent with the MTP/SCS land use plan, the proposed project would result in a **significant impact.**

Mitigation measures for this impact are limited. Most mitigation measures that reduce VMT have low to negligible effects in rural areas, such as bike lanes, transit network improvements, and pedestrian networks. Other mitigation measures are not applicable, like commute reduction strategies and diversifying or intensification of

land uses on the project site. The only feasible mitigation measure is the parking reservation system, which is already being employed as part of the project for weekends, holidays and other peak usage days. The parking reservation system serves to promote carpooling and control the amount of VMT generated by the proposed project. Even with the parking reservation system, the project generates VMT inconsistent with the MTP/SCS. Therefore, this impact remains **significant and unavoidable**.

| | |
|---|---|
| IMPACT 8-4 | Conflict with adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities—Increase in Traffic Impacts Associated with Project Access. *The project would create new points of access off existing public roads. The adequacy of these access points has been considered with regards to applicable safety and design standards. This traffic increase would not result in conditions in excess of adopted standards at intersections or on individual roadway segments.* |
| Significance | *Potentially Significant (New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Measure S8-4: Prepare Improvement Plans and Construct Improvements for Access to Twilight Ride*<br>*Measure S8-5: Construct Left Turn Lane at Access to Twilight Ride* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The impacts associated with the previously-approved project were evaluated based on the amount of traffic generated and added to access roads to the project vicinity. The characteristics of the two access points were identified. Additional automobiles and trucks with equestrian trailers entering and exiting the proposed HFRP entrance via Garden Bar Road could cause an increase in traffic impacts in the Garden Bar area. Project construction included improvements to Garden Bar Road and the HFRP entrance in three phases. The road and entrance would be designed for safe ingress and egress of autos as well as vehicles with trailers. Public automobile and bus access to the HFRP via Garden Bar Road would be allowed with Phase 2 improvements. However, access for vehicles with trailers would not be allowed until after completion of Phase 3 (final) improvements. Because the improvements to Garden Bar Road and the HFRP entrance at Garden Bar would be completed before automobiles and vehicles with trailers would be allowed to access the HFRP from Garden Bar Road, this impact was found to be **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

The project would introduce a new point of access onto the local roadway network at the Twilight Ride and Curtola Ranch Road entrances and provide a new public access to Garden Bar 40 parking area, while the existing access at Mears Place would remain. The Garden Bar 40 access is planned near the location previously evaluated as part of the preceding EIR and approved on Garden Bar Road. As noted in the site illustration, the new connection is located within a tight horizontal curve at a location that allows exiting traffic to have views in each direction. No further analysis of this access is required.

The Twilight Ride site access is located on Bell Road, roughly 1,800 feet south of the Cramer Road intersection. The site frontage is at the southern end of a long straight section of Bell Road, and the road curves to the right in the area beyond the project frontage. The available sight distance at Twilight Ride access point was determined through engineering evaluation of the proposed site plans and was then compared to applicable Placer County standards (Plate 116) for access to public roads. Placer County typically designs roadway connections and left turn lanes based on the greater of the posted speed limit and the observed 85th percentile speed. As noted earlier, the design speed on Bell Road is 40 mph, and Plate 116 requires 440 feet of sight distance from a location measured 15 feet from the edge of the travel way. However, Plate 116 notes that "where restrictive conditions do not allow compliance with the specific sight distance requirements, the engineer may approve a reduction of the corner sight distance to no less than the minimum sight distance as outlined in the Caltrans Highway Design Manual (HDM). HDM Table 201.1 notes that the minimum stopping sight distance at 40 mph is 300 feet.

Because Bell Road is straight north of the proposed access, the view looking left to the north will satisfy the Plate 116 requirement. Looking right to the south, the alignment of Bell Road curves, and the view along the sight line required by Plate 116 would pass through existing brush on the project site and then cross a portion of the adjoining parcel. To meet Plate 116 requirements the brush will need to be trimmed, and it will be necessary to ensure that no new obstructions develop along the line of site on the adjoining parcel. This view is behind the fence and may lie within the existing public right of way or may cross private property depending on the location of right of way in relation to the final entrance configuration. The minimum stopping distance requirement of 300 feet can be provided but could still require a view across a smaller portion of the adjoining parcel.

The Twilight Ride plan includes the alternative of creating project access at the parcel's current driveway further north. This location is farther from the curve on Bell Road, and Plate 116 requirements could be met looking south without the view crossing the adjoining parcel.

Plate 116 also requires that rural roads be developed with approach tapers that provide space for turning motorists to decelerate outside the flow of through traffic and to accommodate the turning requirements of trucks and vehicles pulling trailers. As a practical matter, these features also provide "wayfaring" assistance to motorists by differentiating between the design of commercial driveways and the design of access to individual private residences. Plate 116 guidelines for 40 mph design require 40-foot radius curve returns and 150-foot long approach tapers in advance of the returns in each direction. As a practical matter, Placer County has in the past approved new access in restricted areas with improvements that deviate from Plate 116 improvement requirements.

At the Twilight Ride site, the centerline of the proposed access location is roughly 80 feet from parcel's southern boundary. Thus the 150 foot taper would begin along the edge of pavement roughly 122 feet south of the property line and widen to about 8 feet at the property line. Depending on the right of way location in this area, this work may encroach into the adjoining parcel. A shorter taper may be needed to avoid encroaching into the adjoining parcel, and this deviation from Plate 116 would require an engineer to design an acceptable alternative and request an approval from Placer County's Director of Public Works. Mitigation Measure S8-4 requires the preparation of Improvement Plans meeting County standards on plate 116 for installing a separate northbound left turn lane on Bell Road and construction of a driveway entrance taper for the Twilight Ride site.

The alternative Twilight Ride access location appears to have a similar constraint as this driveway location adjoins the parcel's northern boundary. Deviation from the Plate 116 guideline may be needed in this location as well.

The methodology employed by Placer County and other public agencies was used to quantitatively determine whether left turn lanes are justified at un-signalized intersections. The American Association of State Transportation and Highway Officials (AASHTO) have identified guidelines for the installation of left turn lanes in their publication "A Policy on Geometric Design of Highways and Streets." AASHTO guidelines take two forms. These guidelines are presented the 11th Edition (2011) in their Exhibit 9-29 and in Table 8-8 (below) and base the need for a left turn lane on the volume of approaching and opposing traffic on the mainline road and the relative percentage of that traffic that turns. These criteria are applicable to intersections where the major street traffic proceeds freely and side street traffic is controlled by stop signs.

**Table 8-8. Assessment of Justification for Left Turn Lanes Under 2011 AASHTO**

| Opposing Volume (veh/hr) | Advancing Volume (veh/hr) | | | |
|---|---|---|---|---|
| | 5% Left Turns | 10% Left Turns | 20% Left Turns | 30% Left Turns |
| **40-mph operating speed** | | | | |
| 800 | 330 | 240 | 180 | 160 |
| 600 | 410 | 305 | 225 | 200 |
| 400 | 510 | 380 | 275 | 245 |
| 200 | 640 | 470 | 350 | 305 |
| 100 | 720 | 515 | 390 | 340 |
| 95 | | 119 | 119 | |

Source: A Policy on Geometric Design of Highway and Streets, AASHTO, 2011.

RED values are Cumulative plus Project Saturday volumes at the Twilight Ride access.

AASHTO = American Association of State Transportation and Highway Officials; mph = miles per hour; veh/hr = vehicles per hour

The volumes shown in red in Table 8-8 represent the cumulative plus project Saturday peak volumes at the Twilight Ride access. As noted in red in Table 8-8, for an opposing volume of 100 vehicles per hour, the advancing volume would have to be 515 VPH, for 10 percent left turns, or 390 VPH for 20 percent left turns. As such, the advancing volume of 119 vehicles per hour falls well below the level justifying a left turn lane under 2011 AASHTO guidelines with an opposing volume of 95 VPH. The AASHTO publication was updated in December 2018 and different guidelines are now available. The new guidelines suggest that a left turn lane could be beneficial based on the volume of traffic turning and the total volume per lane on the street. This guidance is presented in their Figure 9-36 Table 8-9 which follows. The information supporting the 2018 guidelines note, however, that "*The volume based guidelines or warrants presented below indicate situations where a left turn lane may be desirable, not necessarily situations where a left-turn lane is definitely needed*.

Placer County has considered the need for left turn lanes on rural roads as part of consideration of other development proposals. Factors such as the frequency of volumes reaching warrants levels, the availability of adequate sight distance and the nature of motorists attracted to the site are considered. In this case, a left turn lane would be required at the Twilight Ride site.

**Table 8-9. Assessment of Justification for Left Turn Lanes Under 2018 AASHTO**

| Left Turn Lane Volume (VPH) | Major Road Two-Lane Highway Peak-Hour Volume (VPH/Lane) | |
|---|---|---|
| | Three-Leg Intersection | Four-Leg Intersection |
| | Warrants a Left Turn Lane | Warrants a Left Turn Lane |
| 5 | 200 | 150 |
| 10 | 100 | 50 |
| 12 | 104 | - |
| 15 | 100 | 50 |
| 20 | 50 | <50 |
| 25 | 50 | < 50 |
| 30 | 50 | < 50 |
| 35 | 50 | < 50 |
| 40 | 50 | < 50 |
| 45 | 50 | < 50 |
| 50 or more | 50 | < 50 |

Source: A Policy on Geometric Design of Highway and Streets, AASHTO, 2018.

RED values are the Cumulative plus Project Saturday volumes at the Twilight Ride access.

AASHTO = American Association of State Transportation and Highway Officials; vph = volume per hour; VPH/lane = volume per hour per lane

The extent to which a portion of Twilight Ride can be operated without a left turn lane has been considered. Based on Table 8-9, a left turn lane would not be needed when the left turn volume was fewer than 10 left turns per hour. Proportionately 9 left turns represent 75 percent of the left turn demand at full occupancy. Therefore, 75 percent of the Twilight Ride parking supply could be created before a left turn lane was needed. The proposed phasing at Twilight Ride includes 53 percent of the overall parking supply in Phase 1 with the remainder developed in Phase 2. Mitigation Measure S8-5 requires the construction of a left turn lane at the access to the Twilight Ride site prior to Phase 2 opening to the public.

The characteristics of an applicable left turn lane can be determined from the guidelines contained in Chapter 4 of the Caltrans Highway Design Manual (HDM). Under HDM guidelines, the lane and its entry bay taper should be long enough to accommodate storage for a two-minute accumulation of turning cars, or a minimum of two vehicles. In addition, the lane and bay taper should also provide space for deceleration, which in the case of 40 mph design is 315 feet. HDM guidelines do allow a reduction in deceleration speed at the bay taper of up to 20 mph, which would reduce the deceleration requirement appreciably. A full 40 mph design would have a bay taper and lane that totaled 365 feet. Assuming that the deceleration distance into the pocket to the back of queue from 20 mph was 150 feet, the bay taper and pocket could be as short as 200 feet. The final left turn lane design will need to meet Placer County requirements or obtain approval of a design exception from the Placer County Director of Public Works.

In addition to the lane itself, a transition area is needed at each end to create the lane. Depending on whether the lane is created by widening on one or both sides of centerline, these transitions are 320 or 160 feet long for 40 mph design.

With the implementation of Mitigation Measure S8-4 requiring the construction of a tapered entrance during Phase 1 and Mitigation Measure S8-5 requiring a left turn lane during Phase 2 of improvements at the Twilight Ride access, the proposed expansion project would not result in new significant environmental effects or

substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 8-5 | Cause a substantial increase in hazards to motorists, pedestrians, and bicyclists attributable to a geometric design feature or incompatible uses. *The project will take access from multiple points along public roads including Cramer Road, which experienced collisions at a rate exceeding the statewide average for similar facilities (3 accidents in 3 years were recorded). Hazards to motorists are considered to be* ***potentially significant****.*<br><br>*Without mitigation, there is no guarantee that visitors may not occasionally elect to park off-site and walk to the new trail expansion areas. Pedestrian travel between off-site parking and the proposed expansion entrances could create automobile / pedestrian / bicyclist safety conflicts. Hazards to motorists, pedestrians and bicyclists is* ***potentially significant****.* |
| Significance | Potentially significant impact *(New impacts not previously considered in the prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Implement Mitigation Measure S8-1 through Mitigation Measure S8-4* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP Certified EIR evaluated impacts of additional vehicle trips and turning movements of automobiles and equestrian trailers entering and exiting the park entrances. The analysis indicated that project-related vehicles trying to access the HFRP at Garden Bar Road could cause an increase in traffic impacts in the area. A series of road and signage improvements were identified at Garden Bar Road and the park entrance to be implemented under a phased improvement program. The analysis found the park entrance was designed for safe ingress and egress of automobiles and vehicles with equestrian trailers. Public automobile and bus access to the park via Garden Bar Road would be restricted until Phase 2 improvements were constructed while equestrian trailer access would not be allowed until completion of Phase 3 (final) improvements. Because the improvements to the road and the park entrance would be completed before automobiles, and vehicles with trailers would be allowed to access the park from Garden Bar Road, the 2010 HFRP certified EIR found the impact **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

Operation of the HFRP Trails Expansion would introduce vehicles and equestrian trailers and potentially increase bicycle and pedestrian activity onto a rural roadway network where the roads are narrow, with short sight distance and little room for pull outs. If new access driveways are not properly designed, there is a potential for conflict between pedestrians, motor vehicles, and bicyclists**.** Each is discussed below.

**Pedestrians:** While the rural location of existing and proposed trail expansion facilities would suggest that the project would be unlikely to generate appreciable pedestrian activity, experience over the history of HFRP suggests that pedestrians could walk to future sites from off-site parking locations if measures are not taken to preclude this activity. After the existing HFRP opened in 2013, within about a year, overflow parking demand spilled over onto adjoining streets and generated pedestrians walking to and from HFRP. Because pedestrian facilities were not available and road width was insufficient for concurrent two-way automobile travel and pedestrians, Placer County responded by installing numerous "No Parking" signs on the roads around the HFRP entrance roads which virtually eliminated off-site parking and corresponding pedestrian travel to the park.

The expanded HFRP trails network assumes that access to all new areas will be managed and limited on peak days in the same manner as the existing HFRP entrance, thereby eliminating overflow conditions. Except for the Garden Bar Road access and Phase 1 and 2 of the Harvego Bear River Preserve entry, parking lot access would not be controlled on low demand days, with the expectation that the available parking spaces will exceed demand with little reason for visitors to park off-site. However, there is no guarantee that occasionally visitors may not elect to park along the roads adjoining HFRP entrances. Pedestrian traffic along roads that lack applicable facilities for this activity and two-way automobile travel is a potential safety issue. While not expected to occur, this potential impact can be reduced to "Less than Significant" by installing 'No Parking" restrictions along impacted roads, per Mitigation Measure S8-2.

**Bicycles:** To the extent that trail expansion visitors might elect to bicycle to the proposed new parking areas, the project could generate additional bicycle traffic on study area roads. As noted in the existing setting, study area roads are used frequently by recreational bicyclists who share the roads which lack bicycle lanes or wide, paved shoulders. It is important to note that off-road cyclists who would use HFRP facilities would generally not ride their bicycles to the site, as mountain bicycles are preferred for off-road, while road bicycles are preferred for on-road, and road bicycles are generally not dual-purpose. While the amount of regular bicycle activity that might be generated by the trail expansion visitors is unknown, the project could incrementally contribute to the use of study area roads for this purpose.

Alternatively, the project will add automobile traffic to rural roads that are already used by bicyclists. As noted in Table 8-14 below, the HFRP Trail Expansion project could increase the traffic volume on rural roads (on peak usage Saturdays) from 34 to 664 vehicles per day, depending on the roadway section. However, the amount of traffic added to these roads does not result in a capacity deficiency as measured in terms of roadway segment Level of Service, and the traffic increase would not appreciably worsen the existing situation for bicyclists.

**Automobile Safety Impacts - Collision Frequency – County Roads:** The project will add traffic to the existing Placer County roads surrounding the project. Incrementally, any traffic increase is likely to result in a proportionate increase in the number of collisions based on historic accident frequency rates. For example, the project could add 177 (weekday) to 407 (Saturday) vehicles per day to Cramer Road. This represents an increase of roughly 32 percent in the current weekday volume and 74 percent of the current Saturday volume occurring on Cramer Road, between Bell Road and SR 49. As noted earlier, 3 collisions have occurred over the last 3 years in this area. After accounting for weekly traffic variation, the traffic volume increase accompanying the project could result in another 0.6 collisions per year. Similarly, the project's traffic increase on Lone Star Road would represent 22 percent of current weekday and 52 percent of current Saturday traffic, and because the collision experience on this road is lower, the project could result in another 0.10 collisions per year.

The project will add traffic to a roadway that experiences collisions at a rate that currently exceeds the statewide average for similar facilities, and as a result the project's impact to safety on Cramer Road is considered to be **potentially significant**.

Implementation of Mitigation Measure S8-3, which includes the installation or upgrade of traffic control devices along Cramer Road to meet current MUTCD standards for message, location and sign condition to the satisfaction of the Department of Public Works prior to the public use of the Twilight Ride facility in Phase 1, would reduce the project's impact to safety on Cramer Road to **less than significant**.

| | |
|---|---|
| IMPACT 8-6 | R*esult in inadequate* emergency access or access to nearby uses. *The proposed HFRP trail expansion project would have several access points to provide adequate access for emergency response vehicles and personnel.* |
| Significance | *Less than Significant. (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 analysis determined no known existing emergency response or evacuation routes were in the HFRP area. The 2010 HFRP EIR evaluated the benefits of the addition of 24 miles of new trails, a new and relocated helistop, and the proposed trail system which would improve access for emergency response vehicles, helicopter, and personnel within HFRP. Garden Bar Road would also be improved to County Fire Department's requirements prior to allowing automobiles in Phase 2, as well as most bus access. Because the HFRP project would not interfere with any emergency response routes and would provide adequate emergency access on-site, the impact was found to be **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Like 2010 HFRP analysis, no designated emergency evacuation plans are in place with CAL FIRE/Placer County Fire Department for the existing residential areas surrounding the expansion areas. However, the project improves access to rural areas of the County for emergency responders. The project would include improvements to on-site access roads in order to provide public and emergency service access to the parking lots and trailheads as well as 2 helicopter landing zones (one each at Harvego Bear River Preserve and Twilight Ride parking areas; the Garden Bar area already has an approved helicopter landing zone). The proposed trail network is designed at a sufficient width to allow emergency vehicles to reach a call for service at remote locations and for people to exit HFRP and the expansion area in an emergency. Barriers will be placed at each public access point to ensure public vehicle access is confined to the designated parking areas.

The proposed HFRP Trail Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects regarding potential interference with

emergency response routes or result in an inundated emergency access based on changes in the project, circumstances or new information.

## 8.5 MITIGATION MEASURES

Mitigation Measure S8-1: Implement Traffic Control Measures During Park Reservation-based Events.

Reservation-based events (involving less than 200 people on-site at a given time) entering at the Garden Bar entrance would be regulated by the County Parks Division Reservation System. The Reservation System would include, but not be limited to, applicable restrictions on:

- number of events – limited to six (6) times per year;
- event start and end times so as to minimize impacts to traffic along Garden Bar Road and not to exceed peak usage capacity or coincide with scheduled use of the road by school buses;
- regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary;
- regulation of number and types of vehicles so as not to exceed parking capacity of the unimproved event parking area at the Garden Bar 40 parking area in combination with daily use. The County may regulate the days and/or times of reservation-based events to avoid peak days or times such as holiday weekends, as necessary.

Measure S8-2: Install No Parking Signs to discourage Pedestrian Travel on Local Roads

Prior to the use of the new parking areas, install “No Parking” signs along public roads serving the Project site at the discretion of the County Department of Public Works to discourage offsite parking and limit pedestrian movement between offsite street parking and each project entry. If parking on side streets near park entrances becomes a repetitive problem, the County shall institute “No Parking” areas along the impacted portions of the roadways.

Measure S8-3: Install or Upgrade Traffic Control Devices along Cramer Road

Prior to the public use of the Twilight Ride facility in Phase 1, install or upgrade traffic control devices along Cramer Road to meet current MUTCD standards for message, location and sign condition to the satisfaction of the Department of Public Works.

Measure S8-4: Prepare Improvement Plans and Construct Improvements for Access to Twilight Ride

With the initial Phase of the parking space construction and access at the Twilight Ride site, Improvement Plans shall be prepared showing the construction of a driveway encroachment onto Bell Road to a Plate 116 Major Land Development Manual standard, unless an alternative is approved by the County Department of Public Works that results in an equal level of performance based on the considerations listed in General Plan Policy 3.A.7(5) (listed earlier in this chapter). The design speed along Bell Road shall be 40 miles per hour, unless an alternate design speed is approved by the Department of Public Works (DPW). The improvements shall begin at the outside edge of any future lane(s) as directed by the DPW and the Engineering and Surveying Division (ESD). The Plate 116 structural section within the

main roadway right-of-way shall be designed for a Traffic Index of 7.5 but said section shall not be less than 3 inches of Hot Mix Asphalt (HMA) over 8 inches of Class 2 Aggregate Base (AB) unless otherwise approved by the ESD.

Measure S8-5: Construct Left Turn Lane at Access to Twilight Ride

Prior to operation of Phase 2 (time at which point 75 percent of the parking stalls at the Twilight Ride access are constructed), Improvement Plans meeting County standards shall be prepared showing the construction of a left turn lane at the Twilight Ride access encroachment from Bell Road onto the site to the satisfaction of the Department of Public Works. Traffic stripe removal, new striping and pavement markings shall conform to criteria specified in the latest version of the Caltrans Highway Design Manual for a design speed of 40 miles per hour (mph), unless an alternative is approved by the Department of Public Works.

## 8.6 TRAFFIC OPERATIONS ANALYSIS

As discussed above, lead agencies are not yet required to analyze transportation impacts under the VMT metric, however they can no longer draw a transportation impact significance conclusion solely through a metric that measures traffic congestion (e.g., level of service (LOS)).

While this section focuses primarily on the traffic congestion effects of the proposed project, LOS is not considered a significant impact on the environment. The LOS analysis presented is included as additional information only.

### 8.6.1 EXISTING SETTING

Analysis of LOS primarily focuses on roadway segments and intersections in rural areas. The affected roadway segments are described above. This section describes several of the intersections in the study area. Even in rural areas, the quality of traffic flow is often governed by the operation of key intersections, particularly where all-way stop control is employed. The following intersections have been identified for evaluation in this study in consultation with Placer County based on their location along primary routes to the project.

- The **Garden Bar Road (North)/Mt. Pleasant Road** intersection is a “tee” intersection controlled by a stop sign on the southbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt. Pleasant Road. There are no turn lanes on Mt. Pleasant Road at the northern Garden Bar Road intersection.

- The **Bell Road/Auburn Valley Road/Lone Star Road** intersection is a “tee” intersection controlled by a stop sign on the eastbound Auburn Valley Road approach. The intersection is located on a horizontal curve that follows Bell Road and Lone Star Road. There are no turn lanes at the intersection.

- The **Mt. Vernon Road/Mears Drive** intersection is the primary access to HFRP. The intersection is a “tee” controlled by a stop sign on the southbound Mears Drive approach. There are no auxiliary turn lanes at this location.

- The **SR 49/Lone Star Road** intersection is controlled by stop signs on the eastbound and westbound Lone Star Road approaches. The eastbound Lone Star Road approach follows a short (i.e., 60 foot radius curve)

horizontal curve as it approaches SR 49. Separate left turn and right turn lanes are provided on both SR 49 approaches, and the left turn lanes continue beyond the area of the intersection as continuous two-way left-turn (TWLT) lanes. The eastbound Lone Star Road approach is a single lane, but the westbound approach has short right turn lane. The intersection is illuminated by street lights.

- The **SR 49/Cramer Road intersection** is controlled by a stop sign on the eastbound Cramer Road approach. A separate left turn lane is provided on the northbound SR 49 approach, and the left turn lane continues beyond the area of the intersection as a continuous TWLT lane. A separate southbound right turn lane is provided on SR 49. The eastbound Cramer Road approach is a single lane. The intersection is illuminated by street lights.

### 8.6.2 APPLICABLE POLICIES AND STANDARDS

To assess the quality of existing traffic conditions, Levels of Service were calculated at study area intersections, the project access and on individual roadway segments identified by Placer County in response to the Subsequent EIR Notice of Preparation. “Level of Service” (LOS) is a qualitative measure of traffic operating conditions whereby a letter grade “A” through “F”, corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment. Traffic conditions are assessed in relation to the LOS Policy in the Placer County General Plan and the County’s Impact Analysis Methodology of Assessment. As noted above, LOS is no longer considered an appropriate metric for determining impact on the environment under the CEQA Guidelines, however it remains a policy within the Placer County General Plan.

**Placer County General Plan**: Minimum acceptable LOS standards for roadway and intersections is LOS C except at locations within ½ mile of a state highway where LOS D is acceptable. Placer County General Plan Policy 3.A.7 allows for temporary slippage of LOS at specific locations until adequate funding has been collected for construction of programmed improvements. The County may allow for exceptions to these LOS standards, based on a variety of established criteria.

> **GOAL 3.A:** To provide for the long-range planning and development of the County’s roadway system to ensure the safe and efficient movement of people and goods.
>
> - **Policy 3.A.7.** The County shall develop and manage its roadway system to maintain the following minimum levels of service (LOS), or as otherwise specified in a community or specific plan.
>
> 1. LOS “C” on rural roadways, except within one-half mile of state highways where the standard shall be LOS “D.”
> 2. LOS “C” on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS “D.”
> 3. A LOS no worse than specified in the Placer County Congestion Management Program (CMP) for the state highway system.
>
> Temporary slippage in LOS C may be acceptable at specific locations until adequate funding has been collected for the construction of programmed improvements.

The County may allow exceptions to the level of service standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:

- The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.
- The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.
- The right-of-way needs and the physical impacts on surrounding properties.
- The visual aesthetics of the required improvement and its impact on community identity and character.
- Environmental impacts including air quality and noise impacts.
- Construction and right-of-way acquisition costs.
- The impacts on general safety.
- The impacts of the required construction phasing and traffic maintenance.
- The impacts on quality of life as perceived by residents.
- Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.

Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation.

- **Policy 3.A.9.** The County shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.

- **Policy 3.A.12.** The County shall secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.

**Placer County Impact Analysis Methodology of Assessment:** Placer County has adopted a methodology for determining a project's effects within the context of the LOS goals established by the General Plan and local community plans. This methodology is noted below.

*Roadway Segment Assessment Methodology:*

*A project may be considered to exceed the minimum LOS policies if;*

1) *A roadway segment operating at or above the established Placer County policy without the project will decrease to an unacceptable LOS with the project; or*

2) *A roadway segment currently operating below the applicable established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 or greater; or*

3) *A roadway segment currently operating below the established acceptable LOS Policy experiences an increase in Average Daily Traffic (ADT) of 100 or more project generated trips, per lane.*

*Signalized Intersections Assessment Methodology:*

*A project may be considered to exceed the minimum LOS policies if;*

1) *An intersection operating at or above the established Placer County policies without the project will decrease to an unacceptable LOS with the project; or*

2) *An intersection currently operating below the acceptable LOS established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 (5%) or greater; or*

3) *An intersection currently operating below the established acceptable LOS policy will experience an increase in overall average intersection delay of 4 seconds or greater.*

*Un-signalized Intersection Assessment Methodology:*

*A project may be considered to exceed the minimum LOS policies if;*

1) *An all-way stop or side street controlled intersection which currently operates at or above the established Placer County policies without the project will deteriorate to an unacceptable LOS with the project and cause the intersection to meet California Manual of Uniform Traffic Control Devices (MUTCD) traffic signal warrant(s); or*

2) *An all-way stop or side-street controlled intersection which currently operates below the established acceptable LOS policy and meets MUTCD signal warrant(s) will experience an overall increase of 2.5 seconds or more with the project.*

*Further consideration will be given in situations where the existing level of service is just above or at the approved minimum level of service and any increase in vehicle trips, or even daily fluctuations in traffic, will deteriorate the level of service to an unacceptable level. In such cases, it may be determined by the County that part (2) or (3) of the above exceptions for intersection methodology is more applicable and should be used to analyze a proposed project's impacts.*

### 8.6.3 ANALYSIS METHODOLOGIES

**Intersections:** Different methodologies are available to address intersection operations and LOS based on the type of facility and traffic control. Table 8-10 presents general characteristics associated with each LOS grade.

***Signalized Intersections.*** No study intersection is currently signalized, but accepted methodologies would govern evaluation if a traffic signal was found to be needed. Various methodologies exist to determine operating LOS at intersections. The available techniques for addressing intersections vary with regard to factors such as traffic signal timing, interaction between adjoining signals, etc. Caltrans and Placer County make use of the procedures contained in the *Highway Capacity Manual (6th Edition)* for determining operating LOS. This methodology expresses the quality of intersection traffic operations in terms of average delay per vehicle.

**Table 8-10. Level of Service Definitions**

| Level of Service | Signalized Intersection | Unsignalized Intersection | Roadway (Daily) |
|---|---|---|---|
| "A" | Uncongested operations, all queues clear in a single-signal cycle.<br>Average Delay ≤ 10 seconds per vehicle | Little or no delay.<br>Average Delay ≤ 10 sec/veh | Completely free flow. |
| "B" | Uncongested operations, all queues clear in a single cycle.<br>Delay > 10 sec/veh and ≤ 20 sec/veh | Short traffic delays.<br>Delay > 10 sec/veh and < 15 sec/veh | Free flow, presence of other vehicles noticeable. |
| "C" | Light congestion, occasional backups on critical approaches.<br>Delay >20 sec/veh and <35 sec/veh | Average traffic delays.<br>Delay > 15 sec/veh and < 25 sec/veh | Ability to maneuver and select operating speed affected. |
| "D" | Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed.<br>Delay > 35 sec/veh and < 55 sec/veh | Long traffic delays.<br>Delay > 25 sec/veh and ≤ 35 sec/veh | Unstable flow, speeds and ability to maneuver restricted. |
| "E" | Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es).<br>Delay >55 sec and ≤ 80 sec/veh | Very long traffic delays, failure, extreme congestion.<br>Delay > 35 sec/veh and ≤ 50 sec/veh | At or near capacity, flow quite unstable. |
| "F" | Total breakdown, stop-and-go operation. Delay > 80 sec/veh | Intersection often blocked by external causes.<br>Delay > 50 sec/veh | Forced flow, breakdown. |

Sources: 6th Edition Highway Capacity Manual, and Transportation Research Board (TRB) Special Report 209.

***Un-signalized Intersections.*** At un-signalized intersections the number of gaps in through-traffic, gap acceptance time and corresponding length of delays for motorists waiting to turn are used for LOS analysis. Procedures used for calculating un-signalized intersection LOS are as presented in the *Highway Capacity Manual (6th Edition).* At un-signalized intersections controlled by side street stop signs, the Highway Capacity Manual (HCM) methodology identifies the average delay, and how the LOS for all movements that must yield the right of way can be determined. Typically, the "worst case" LOS is associated with side street traffic waiting to turn onto the major street. For environmental analysis, Placer County also identified the overall average delay experienced by those motorists who yield the right of way, and this is the measure used to determine the significance of traffic impacts to un-signalized intersections in Placer County.

**Roadway Segments:** The Placer County General Plan presents daily traffic volume levels that are to be indicative of LOS on arterials streets and rural roads. These volume thresholds are shown in Table 8-11.

**Table 8-11. Placer County Evaluation Criteria for Roadway Segment Level of Service**

| Roadway Capacity Class | Maximum Daily Traffic Volume Per Lane Level of Service | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| 1. Freeway – Level Terrain | 6,300 | 10,620 | 13,680 | 17,740 | 18,000 |
| 2. Freeway – Rolling Terrain | 5,290 | 8,920 | 11,650 | 14,070 | 15,120 |
| 3. Freeway – Mountainous Terrain | 3,400 | 5,740 | 7,490 | 9,040 | 9,720 |
| 4. Arterial – High Access Control | 6,000 | 7,000 | 8,000 | 9,000 | 10,000 |
| 5. Arterial – Moderate Access Control | 5,400 | 6,300 | 7,200 | 8,100 | 9,000 |
| 6. Arterial – Low Access Control | 4,500 | 5,250 | 6,000 | 6,870 | 7,500 |
| 7. Rural 2-lane Highway – Level Terrain | 1,500 | 2,950 | 4,800 | 7,750 | 12,500 |
| 8. Rural 2-lane Highway – Rolling Terrain | 800 | 2,100 | 3,800 | 5,700 | 10,500 |
| 9. Rural 2-lane Highway – Mountainous Terrain | 400 | 1,200 | 2,100 | 3,400 | 7,000 |
| *Rural 2 lane road – Mountainous Terrain (> 18 feet of pavement)* | *320* | *960* | *1,680* | *2,720* | *5,600* |
| *Rural 2 lane road – Mountainous Terrain (< 18 feet of pavement)* | *265* | *795* | *1,390* | *2,250* | *4,635* |

Source: Placer County General Plan FEIR and HFRP Expansion DEIR (2010)

Placer County thresholds account for the general terrain and alignment of rural collector and local roads. Some of the roads towards the western portion of the study area are fairly straight and level, while others follow the rolling terrain, and the roads toward the east mostly follow the rolling terrain of the foothills. For this analysis it has been assumed that roadways located in the study area would classify as "rolling." Specific roadway classifications are noted in subsequent tables.

### OTHER EVALUATION CRITERIA

**Traffic Signal Warrants:** Evaluation of un-signalized LOS has been supplemented by consideration of the need for traffic signals based on the Traffic Signal Warrant criteria published in the *California Manual of Uniform Traffic Control Devices (MUTCD).* Traffic signal warrants provide for an analysis of traffic operations, pedestrian and bicycle needs, and other factors that define the minimum conditions under which installing traffic control signals might be justified.

## 8.6.4 EXISTING TRAFFIC OPERATIONS

**Traffic Volumes:** Recognizing the operational characteristics of HFRP, traffic operations have been assessed under both weekday and weekend (Saturday) conditions. Daily traffic volumes were tabulated on key roadway segments, and hourly traffic volume counts were conducted at intersections during the typical weekday p.m. peak hour (4:00 to 6:00 p.m.). Based on review of traffic volume counts in the study area and at HFRP, Saturday turning movement counts were conducted during the midday peak hour on Saturday (noon to 2:00 p.m.).

**Daily Traffic Volume:** 24-hr traffic volume counts were collected on study area roadways from new counts or from data available from Placer County. Figure 3 in the KD Anderson Traffic Impact Analysis (2019) identifies the locations of these traffic counts. Saturday data was collected at various locations on May 21, 2016, June 4, 2016, and October 8, 2016. Weekday data was collected on October 3, 2017 and December 7, 2018. The results of these counts form the basis for Table 8-12, Existing Roadway Segment Level of Service.

**Table 8-12. Existing Daily Traffic Volumes and Levels of Service**

| Road | From | To | Class/Terrain | Weekend | | Weekday | |
|---|---|---|---|---|---|---|---|
| | | | | Daily Volume | Level of Service | Daily Volume | Level of Service |
| **Public Roads** | | | | | | | |
| Mears Drive | Mt. Vernon Road | HFRP Entrance | Local – R | 790[1] | A | 493 | A |
| Mt. Vernon Road | Ayers Holmes Road | Buffalo Road | RC – R | 1,328 | A | 1,714 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC – R | 2,679 | B | 2,010 | B |
| Garden Bar Road | Wise Road | Mt. Pleasant Road | Local-R | 691 | A | 748 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local-M[2] | 316 | A | 318 | A |
| Bell Road | Lone Star Road | Cramer Road | RC –R | 543 | A | 614 | A |
| Bell Road | Cramer Road | Joeger Road | RC – R[1] | 1,329 | A | 1,400 | A |
| Lone Star Road | Bell Road | SR 49 | Local-R | 1,223 | A | 1,328 | A |
| Cramer Road | Bell Road | SR 49 | Local-R | 548 | A | 558 | A |
| **Private Roads** | | | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local-R | 884 | A | 935 | A |
| Auburn Valley Road | Fairway Court | Curtola Ranch Road | Local-R | 399 | A | 295 | A |

Source: Data provided by KD Anderson & Associates, Inc. in 2019

R is Rolling terrain, M is Mountainous terrain

[1] Volume is the average of three Saturdays 5/21/2016, 6/04/2016 and 10/8/2016 (Counts were taken prior to implementation of the reservation system)

[2] Roadway with capacity adjustment for reduced width.

**Peak Hour Intersection Traffic Counts:** Weekday intersection turning movement counts were collected at various study locations on October 5, 2017 and December 7, 2018. Saturday data was collected on May 21, 2016, May 28, 2016, June 4, 2016, October 8, 2016, October 7, 2017 and August 18, 2018. Intersection count data was collected during the typical weekday p.m. peak hour (i.e., 4:00 to 6:00 p.m.) and during the highest volume hour for activity HFRP (i.e., noon to 2:00 p.m.) on Saturdays. The locations of study intersections and the results of these counts along with traffic count worksheets are included in the traffic study (Appendix D).

**Levels of Service:** Levels of Service were determined using methodologies accepted by Placer County.

**Roadway Segment Levels of Service:** Table 8-12 identifies the current LOS on study area roads based on daily traffic volume. As indicated, all roadways carry traffic volumes that result in LOS that satisfy Placer County's minimums standards for rural areas (i.e., LOS C or LOS D based on proximity to a state highway). Studied roadways and intersections in the project vicinity are shown in Exhibit 8-1 "Existing Traffic Volumes on Studied Roadway Segments."

**Intersection Levels of Service:** Table 8-13 identifies current peak hour LOS at study area intersections. As shown, with one exception all study area intersections operate with LOS that satisfy Placer County's overall minimum LOS C standard for locations more than ½ mile from a state highway or LOS D for locations within ½ mile of a state highway. The exception is the SR 49 / Lone Star Road where side street approaches operate at LOS F and where the overall weighted average Level of Service is LOS F.

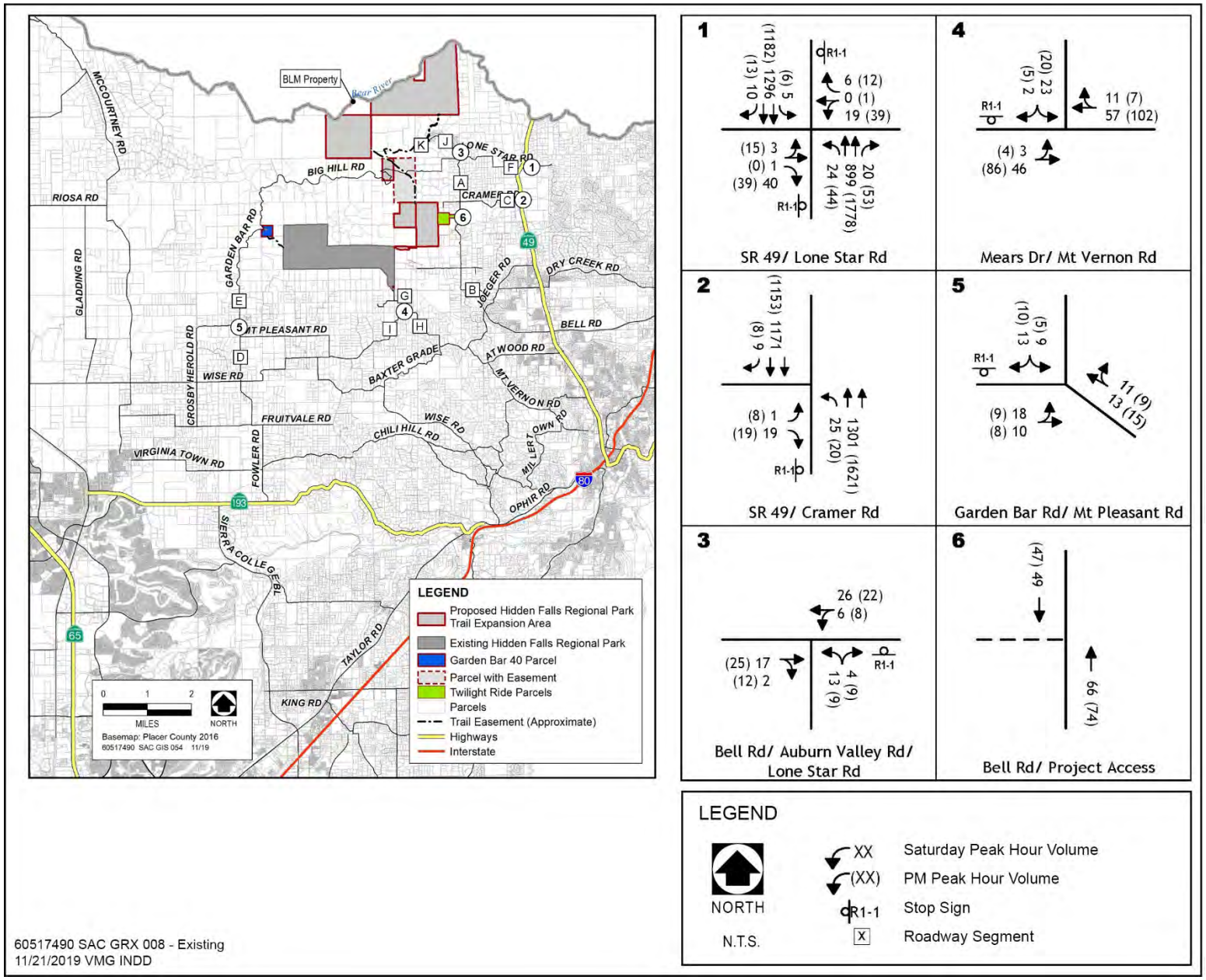



**Exhibit 8-1. Existing Traffic Volumes and Lane Configurations**

**Table 8-13. Existing Intersection Levels of Service**

| # | Location | Control | Weekday P.M. Peak Hour | | Saturday Peak Hour | |
|---|---|---|---|---|---|---|
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | EB/WB Stop | | | | |
| | (overall) | | **(106.3)** | **(F)** | **(93.4)** | **(F)** |
| | Eastbound approach | | 103.5 | F | 26.0 | D |
| | Westbound approach | | >300 | F | 195.6 | F |
| | Northbound left turn | | 11.9 | B | 12.9 | B |
| | Southbound left turn | | 16.5 | C | 10.2 | B |
| 2 | SR 49 / Cramer Road | EB Stop | | | | |
| | (overall) | | (15.6) | (C) | (13.0) | (B) |
| | Eastbound approach | | 18.8 | C | 14.6 | B |
| | Northbound left turn | | 11.3 | B | 11.8 | B |
| 3 | Bell Road/Auburn Valley Road/Lone Star Road | EB Stop | | | | |
| | (overall) | | (8.5) | (A) | (8.3) | (A) |
| | Eastbound approach | | 8.8 | A | 9.0 | A |
| | Northbound left turn | | 7.3 | A | 7.3 | A |
| 4 | Mt. Vernon Road / Mears Drive | SB Stop | | | | |
| | (overall) | | (9.5) | (A) | (9.2) | (A) |
| | Southbound approach | | 9.8 | A | 9.4 | A |
| | Eastbound left turn | | 7.5 | A | 7.4 | A |
| 5 | Mt. Pleasant Road/ Garden Bar Road | SB Stop | | | | |
| | (overall) | | (8.1) | (A) | (8.1) | (A) |
| | Southbound approach | | 8.6 | A | 8.8 | A |
| | Eastbound left turn | | 7.3 | A | 7.3 | A |

Source: Data provided by KD Anderson & Associates, Inc. in 2019

EB = eastbound; NB = northbound; SB = southbound; WB = westbound; LOS = level of service; sec/veh = seconds per vehicle

(XX) is overall weighted average delay and LOS for those movements yielding right of way

**BOLD** values exceed minimum LOS standard

**Traffic Signal Warrants:** The extent to which existing traffic volumes reach the level that satisfy peak hour traffic signal warrants has been evaluated. Peak hour warrants differentiate between *urban* and *rural* conditions based on the prevailing travel speed. Rural warrants are applied for speeds of 40 mph or greater, while urban criteria are employed at lower speeds. For this investigation rural warrant thresholds have been employed in all cases. Current traffic volumes at all study intersections fall below the level that would satisfy peak hour warrant requirements.

## 8.6.5 EXISTING PLUS PROJECT TRAFFIC OPERATIONS

The trip generation and trip distribution described data above was used to assign project trips to the study intersections and roadway segments. The assignment of project traffic to the local area street system will reflect the alternative routes available between various areas of HFRP, the expansion project, and ultimate destinations. The choice of access route was determined based on the relative difference in travel time along each route. Using the regional trip distribution assumptions noted previously, project trips were assigned to the local street system based on the least time path to each destination. Figure 9 of the traffic impact study presents resulting “project only” traffic for the trips associated with proposed and approved but unbuilt HFRP uses (Appendix D).

Table 8-14 identifies the amount of daily traffic added to study area roads by the project and compares Existing and Existing Plus Project volumes. As indicated, the addition of project traffic does not result in any roadway segment operating with a Level of Service that falls below the applicable minimum LOS C/D standard.

**Table 8-14. Existing Plus Project Roadway Segment Traffic Volumes and Level of Service**

| # | Road | Location | Class | Roadway Volume and Segment Level of Service | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Weekday | | | | | Saturday | | | | |
| | | | | Existing | | Existing Plus Project | | | Existing | | Existing Plus Project | | |
| | | | | Daily Volume | LOS | Daily Volume | | LOS | Daily Volume | LOS | Daily Volume | | LOS |
| | | | | | | Project | Total | | | | Project | Total | |
| ***Public Roads*** | | | | | | | | | | | | | |
| A | Bell Rd | Lone Star Rd to Cramer Rd | RC | 614 | A | 14 | 628 | A | 543 | A | 34 | 577 | A |
| B | Bell Rd | Joeger Rd to Cramer Rd | RC | 1,400 | A | 200 | 1,600 | A | 1,329 | A | 402 | 1,731 | B |
| C | Cramer Rd | Bell Rd to SR 49 | Local | 558 | A | 177 | 735 | A | 548 | A | 407 | 955 | B |
| D | Garden Bar Road | Wise Road to Mt. Pleasant Road | Local | 748 | A | 100 | 848 | A | 691 | A | 215 | 906 | A |
| E | Garden Bar Road | Mt. Pleasant Road to Park Entrance | Local | 318 | A | 154 | 472 | A | 316 | A | 331 | 647 | A |
| F | Lone Star Rd | Bell Rd to SR 49 | Local | 1,328 | A | 280 | 1,608 | B | 1,223 | A | 630 | 1,853 | B |
| G | Mears Drive | Mt. Vernon Road to Park Entrance | Local | 493 | A | 56 | 549 | A | 790 | A | 120 | 910 | A |
| H | Mt. Vernon Rd | Mears Drive to Meyers Lane | RC | 2,010 | B | 80 | 2,090 | B | 2,679 | B | 168 | 2,847 | B |
| I | Mt. Vernon Rd | Ayers Holms Road to Buffalo Road | RC | 1,714 | B | 96 | 1,810 | B | 1,328 | A | 216 | 1,544 | A |
| ***Private Roads*** | | | | | | | | | | | | | |
| J | Auburn Valley Road | Bell Road to View Ridge Drive | Local | 935 | A | 294 | 1,229 | A | 884 | A | 664 | 1,548 | A |
| K | Auburn Valley Road | Fairway Court to Curtola Ranch Road | Local | 295 | A | 294 | 589 | A | 399 | A | 664 | 1,063 | A |

Source: KD Anderson & Associates, Inc. in 2019

**BOLD** values exceed LOS C.

SR = State Route

LOS = level of service

Exhibit 8-2 depicts HFRP project-generated vehicle trips superimposed onto current traffic volumes. Table 8-15 compares the existing and "Plus Project" Levels of Service at study intersections. As indicated the addition of project trips does not result in any additional intersections operating with a Level of Service that exceeds the adopted minimum standard.

The SR 49 / Lone Star Road intersection currently operates at an overall Level of Service that exceeds the LOS D minimum standard and with the proposed project, will continue to operate with an overall Level of Service that exceeds the LOS D minimum. Because conditions exceed the minimum LOS standard with and without the HFRP project, the standard is evaluated based on 1) change in overall average delay and 2) satisfaction of peak hour traffic signal warrants. In this case, while the incremental change in delay caused by the project exceeds the 2.5 seconds allowed under Placer County criteria, rural peak hour traffic signal warrants are not satisfied.

Existing Plus Project traffic volumes were compared to peak hour warrant requirements to determine whether the addition of project trips results in the need for signalization. No study intersection will carry volumes that reach a level that warrants construction of a traffic signal.

The proposed expansion of the HFRP would not result in new significant effects or substantially increase the severity of previously identified significant effects of "Existing plus Project traffic conditions and Levels of Service" based on changes in the project, circumstances or new information.

### 8.6.6 CUMULATIVE NO PROJECT TRAFFIC OPERATIONS

The cumulative traffic operations analysis considers the relative effect of the HFRP Trails Expansion Project within the context of long-term traffic conditions in the study area. In addition to the HFRP Trails Expansion Project, the analysis of long-term cumulative effects considers the combined effect of regional traffic growth on study area roads and includes trips associated with other reasonably foreseeable development proposals.

**Background Growth:** Because the HFRP expansion area is rural with relatively limited development prospects, Placer County staff reviewed traffic model results and the configuration of each model with regards to the level of detail provided and the reliability of forecasts to determine the best approach for this analysis. Placer County staff also reviewed available traffic studies and Caltrans planning documents and compared traffic model results to historic traffic volume counts on study area roads. Based on this comprehensive review, Placer County staff determined that the best approach yielding conservative results while incorporating the effects of growth in all jurisdictions would assume a uniform annual growth rate of 2.0% on each roadway segment. The resulting 20-year growth factor (i.e., 1.49) has been applied to the traffic volumes on each roadway and at study intersections.

**Reasonably Foreseeable Projects:** Placer County staff considered the extent of other development projects that might add traffic to the study area that would not reasonably be addressed by a background growth rate. For this analysis it was assumed that projects within the immediate study area could be considered but projects located at more distant locations would be assumed to be part of the background growth rate.

The **HFRP Garden Bar Road** site has been previously evaluated under CEQA and approved with conditions. This analysis assumes this portion of the HFRP Trails Expansion occurs as part of the Cumulative baseline condition, although the location of the parking lot has been changed to the 40-acre parcel adjacent to Garden Bar Road. Two other projects were identified:

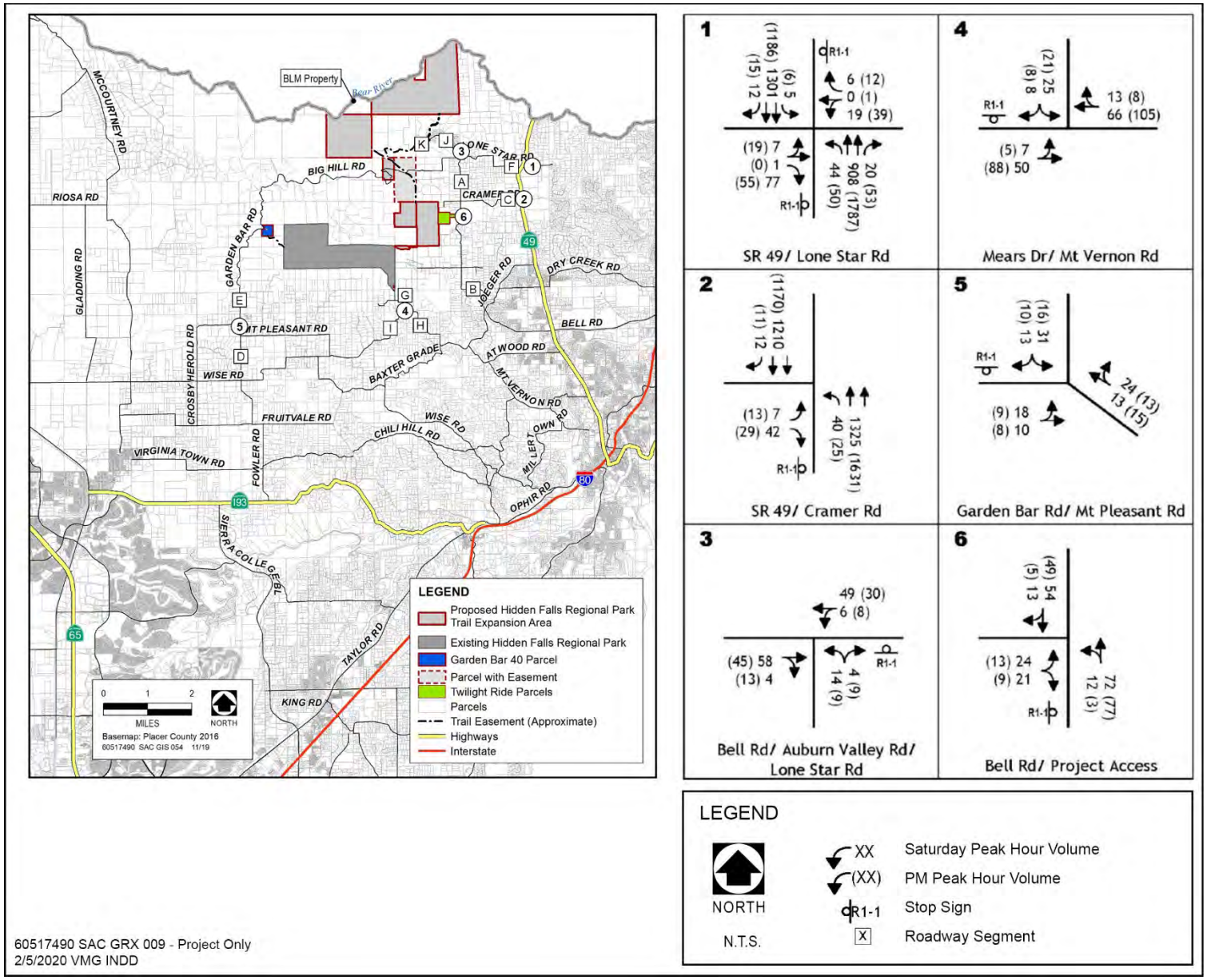



**Exhibit 8-2. Existing Plus Project Traffic Volumes and Lane Configurations**

**Table 8-15. Existing Plus Project Intersection Levels of Service**

| # | Location | Control | Weekday PM Peak Hour | | | | Saturday Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Existing | | EX Plus Project | | Existing | | EX Plus Project | |
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | | | | | | | | | |
| | (overall) | EB/WB Stop | **(106.3)** | **(F)** | **(110.3)** | **(F)** | **(93.4)** | **(F)** | **(101.2)** | **(F)** |
| | Eastbound approach | | 103.5 | F | 120.2 | F | 26.0 | D | 31.2 | D |
| | Westbound approach | | >300 | F | >300 | F | 195.6 | F | 298.8 | F |
| | Northbound left turn | | 11.9 | B | 12.0 | B | 12.9 | B | 13.3 | B |
| | Southbound left turn | | 16.5 | C | 16.6 | C | 10.2 | B | 10.3 | B |
| 2 | SR 49 / Cramer Road | | | | | | | | | |
| | (overall) | EB Stop | (15.6) | (C) | (16.9) | (C) | (13.0) | (B) | (15.5) | (C) |
| | Eastbound approach | | 18.8 | C | 20.0 | C | 14.6 | B | 17.9 | C |
| | Northbound left turn | | 11.3 | B | 11.5 | B | 11.8 | B | 12.3 | B |
| 3 | Bell Rd/Auburn Valley Rd/Lone Star Rd | | | | | | | | | |
| | (overall) | EB Stop | (8.5) | (A) | (8.7) | (A) | (8.3) | (A) | (9.0) | (A) |
| | Eastbound approach | | 8.8 | A | 9.0 | A | 9.0 | A | 9.4 | A |
| | Northbound left turn | | 7.3 | A | 7.3 | A | 7.3 | A | 7.4 | A |
| 4 | Mt. Vernon Road / Mears Drive | | | | | | | | | |
| | (overall) | SB Stop | (9.5) | (A) | (9.5) | (A) | (9.2) | (A) | (9.1) | (A) |
| | Southbound approach | | 9.8 | A | 9.8 | A | 9.4 | A | 9.5 | A |
| | Eastbound left turn | | 7.5 | A | 7.5 | A | 7.4 | A | 7.4 | A |
| 5 | Mt. Pleasant Road / Garden Bar Road | | | | | | | | | |
| | (overall) | SB Stop | (8.1) | (A) | (8.4) | (A) | (8.1) | (A) | (8.7) | (A) |
| | Southbound approach | | 8.6 | A | 8.8 | A | 8.8 | A | 9.2 | A |
| | Eastbound left turn | | 7.3 | A | 7.3 | A | 7.3 | A | 7.4 | A |
| 6 | Bell Road / Twilight Ride Access | | | | | | | | | |
| | (overall) | EB Stop | - | - | (8.8) | (A) | - | - | (8.9) | (A) |
| | Eastbound approach | | | | 9.1 | A | | | 9.3 | A |
| | Northbound left turn | | | | 7.3 | A | | | 7.4 | A |

Source: KD Anderson & Associates, Inc. in 2019

(XX) is overall weighted average delay and LOS for those movements yielding right of way

**BOLD** values exceed minimum overall LOS standard.

EB = eastbound; LOS = level of service; SB = southbound; sec/veh = seconds per vehicle; SR = State Route; WB = westbound

**Placer County Winery and Farm Brewery Zoning Text Amendment Project:** Placer County has prepared an Environmental Impact Report evaluating the impacts of amending the Winery & Farm Brewery Ordinance. In general, the proposed amendment is intended to provide additional flexibility with respect to holding events at existing and future wineries and farm breweries. From a standpoint of traffic and transportation, the amendments do not change the day-to-day operation of wineries and farm breweries nor does the amendment change the process undertaken by the County to process new winery and farm brewery applications. The amendment will change the number of agricultural promotional events permitted at wineries and farm breweries and will increase the number of special events that are allowed at existing and future facilities located on large (10+ acre) parcel sizes.

The approach to estimating the traffic contribution accompanying the amendment identifies the immediate impacts of implementing the ordinance at existing facilities as well as the long-term cumulative effect of operating new, existing and pending wineries and farm breweries with the change in events permitted under the ordinance. Very conservative assumptions for the activity associated with additional events were identified based on data collected at existing wineries and farm breweries and permitted attendance. Additional events were assumed to occur at each existing winery and farm brewery because of the proposed amendments to the ordinance, and the resulting vehicle trips were assigned to the study area circulation system. The cumulative impacts of developing new wineries and farm breweries under the amended ordinance were also evaluated, assuming that 30 new facilities would be developed over twenty years. Under the conservative assumptions made for the EIR, a total of 3,728 daily trips and 1,044 peak hour trips were anticipated as a result of additional events at the 11 existing and 30 future wineries or rural breweries.

**Sierra College Blvd and SR 193 Commercial Project:** Placer County has also been in pre-development discussions regarding a possible retail center to be constructed at the intersection of Sierra College Blvd and SR193. This 10-acre development would require a GPA/rezone and would be subject to an EIR before consideration by the Placer County Planning Commission and Board of Supervisors. However, for this analysis this project has been assumed to be completed to provide a very conservative assessment of cumulative effects.

For this analysis, traffic associated with development in the City of Lincoln, projects south of SR 193, such as Bickford Ranch, the Village at Loomis and Loomis Costco, and development in North Auburn is reflected in the background growth rate.

**Roadway Improvements:** Improvements to study area roads and intersections that are reasonably certain have been determined based on consideration of projects included in adopted plans with established funding mechanisms. Placer County administers the Countywide Traffic Mitigation Fee Program, which requires new development to contribute to the cost of circulation system improvements of countywide benefit. Individual benefit districts have been established for specific areas of the County. Table 8-16 notes improvements included in the Countywide Capital Improvement Program (CIP) that affect study area roads. These improvements are assumed to be in place under cumulative conditions. In addition, the improvements to Garden Bar Road that were required to support full use of the site have been assumed to be constructed under the cumulative base condition.

**Table 8-16. Placer County CIP Benefit District Projects**

| Street / Intersection | Segment | Description of Improvements |
|---|---|---|
| **Auburn Bowman Benefit District** | | |
| Mt. Vernon Road | City of Auburn to Joeger Road | Improve Existing 2-lanes |
| Ophir Road | At Wise Road | Reconstruct pavement |
| SR 49 | Dry Creek Road to Bell Road | Widen to 6-lanes |
| **Newcastle / Horseshoe Bar / Penryn Benefit District** | | |
| Bald Hill Road | Mt. Vernon Rd to Lozanos Road | Widen / Reconstruct |
| Crater Hill Road | At Chili Hill Road | Realign intersection |
| Chili Hill Road | West of Lozanos Road | Realign Horizontal Curve |
| Lozanos Road | At Auburn Ravine | Replace Bridge |
| | Ophir Road to Wise Road | Shoulder widening |
| Sierra College Blvd | King Road to English Colony Way | Widen to 4-lanes |
| | At Delmar Avenue | Signalize |
| Wise Road | Ophir Road to Crater Hill Road | Shoulder widening |
| SR 193 | Taylor Road to Gold Hill Road | Shoulder widening |
| **Placer Central Benefit District** | | |
| Mt. Vernon Road | At Ayers Holmes Road | Improve sight distance |
| | At Mount Pleasant Road | Reconstruct intersection |
| Sierra College Blvd | English Colony Way to SR 193 | Widen to 4 lanes |
| SR 193 | Gold Hill Road to Sierra College Blvd | Shoulder widening |
| | Sierra College Blvd to City of Lincoln | Widen to 4 lanes |

**Roadway Traffic Volumes:** Tables 8-17 and 8-18 present a forecast of daily traffic volumes that compare conditions with and without the HFRP Trail Expansion project. As indicated, if the project does not proceed and no new facilities are created, all study area roadways will carry traffic volumes that result in Levels of Service that remain within Placer County's minimum LOS C or LOS D (i.e., ½ mile of state highway) standards.

**Table 8-17. Cumulative No Project Saturday Daily Traffic Volumes and Levels of Service**

| Road | From | To | Class | Saturday | |
|---|---|---|---|---|---|
| | | | | Daily Volume | LOS |
| **Public Roads** | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local - R | 915 | A |
| Mt. Vernon Road | Ayers Holmes Road | Buffalo Road | RC - R | 2,160 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC - R | 4,190 | C |
| Garden Bar Road | Wise Road | Mt. Pleasant Rd | Local - R | 1,284 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local - R | 802 | A |
| Bell Road | Lone Star Road | Cramer Road | EC - R | 986 | A |
| Bell Road | Cramer Road | Joeger Road | RC - R | 2,254 | B |
| Lone Star Road | Bell Road | SR 49 | Local - R | 1,944 | B |
| Cramer Road | Bell Road | SR 49 | Local - R | 1,158 | A |
| **Private Roads** | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 1,290 | A |
| Auburn Valley Road | Fairway Court | Curtola Ranch Rd | Local - R | 585 | A |

**BOLD** values exceed minimum LOS C or LOS D standard.
**HIGHLIGHTED** values are a significant impact

**Table 8-18. Cumulative No Project Weekday Daily Traffic Volumes and Levels of Service**

| Road | From | To | Class | Weekday | |
|---|---|---|---|---|---|
| | | | | Daily Volume | LOS |
| **Public Roads** | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local – R | 979 | A |
| Mt. Vernon Road | Ayers Holmes Rd | Buffalo Road | RC – R | 2,734 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC – R | 4,278 | B |
| Garden Bar Road | Wise Road | Mt. Pleasant Rd | Local - R | 1,237 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local – R | 628 | A |
| Bell Road | Lone Star Road | Cramer Road | EC – R | 1,091 | A |
| Bell Road | Crammer Road | Joeger Road | RC – R | 2,272 | A |
| Lone Star Road | Bell Road | SR 49 | Local – R | 2,294 | B |
| Cramer Road | Bell Road | SR 49 | Local – R | 1,388 | A |
| **Private Roads** | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 1,393 | A |
| Auburn Valley Road | Fairway Court | Curtola Ranch Rd | Local - R | 440 | A |

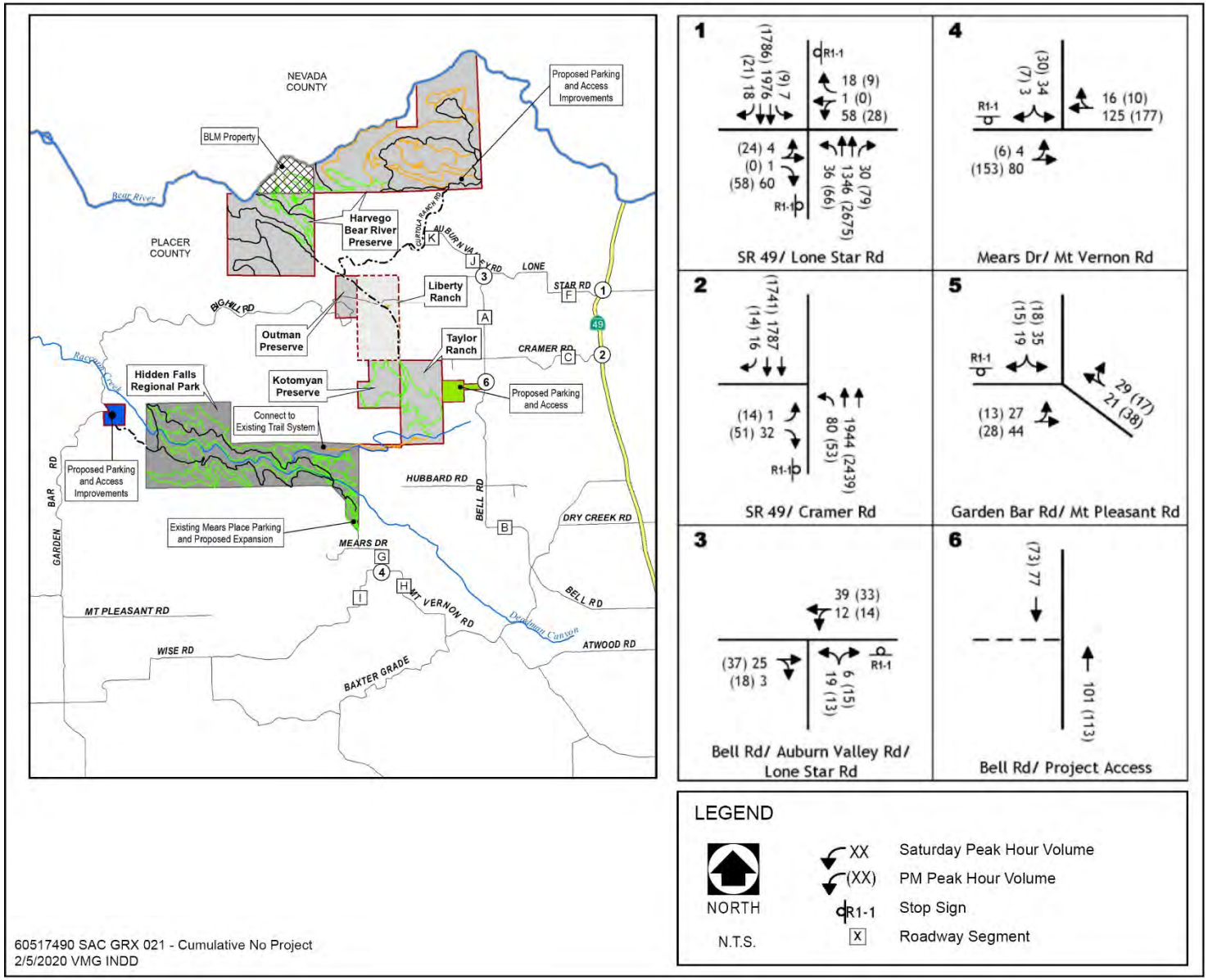
**BOLD** values exceed minimum LOS C or LOS D standard.

**HIGHLIGHTED** values are a significant impact

**Peak Hour Traffic Volume Forecasts:** Exhibit 8-3 presents cumulative peak hour traffic volumes without the trips associated with implementing the HFRP Trails Expansion project. These forecasts reflect the identified background growth rate as well as trips from reasonably foreseeable projects.

**Cumulative No Project Intersection Level of Service:** Table 8-19 below identifies the long-term cumulative Level of Service projected at study intersections under the Cumulative No Project scenario. While most locations will satisfy the adopted minimum LOS standard, one intersection will operate with conditions that exceed the minimum LOS standard based on overall LOS.

The **SR 49 / Lone Star Road** intersection currently operates and will continue to operate at LOS F in both the weekday p.m. peak hour and the Saturday peak hour. If background traffic on Lone Star Road increases at the assumed rate, the westbound volume would satisfy peak hour warrants in the weekday p.m. peak hour and Saturday peak hour. Therefore, even without the proposed trails expansion project, the SR 49/Lone Star Road intersection would operate unacceptably.




Source: KD Anderson & Associates in 2019

**Exhibit 8-3. Cumulative No Project Volumes and Lane Configurations**

**Table 8-19. Cumulative No Project Intersection Levels of Service**

| # | Location | Control | Weekday PM Peak Hour | | Saturday Peak Hour | |
|---|---|---|---|---|---|---|
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | EB/WB Stop | | | | |
| | (overall) | | **(192.0)** | **(F)** | **(174.8)** | **(F)** |
| | Eastbound approach | | >300 | F | >300 | F |
| | Westbound approach | | >300 | F | >300 | F |
| | Northbound left turn | | 18.9 | C | 22.1 | C |
| | Southbound left turn | | 33.6 | D | 13.1 | B |
| 2 | SR 49 / Cramer Road | EB Stop | | | | |
| | (overall) | | (30.9) | (D) | (21.5) | (C) |
| | Eastbound approach | | 42.0 | E | 23.0 | C |
| | Northbound left turn | | 17.3 | C | 20.9 | C |
| 3 | Bell Rd / Auburn Valley Rd / Lone Star Rd | EB Stop | | | | |
| | (overall) | | (8.7) | (A) | (8.5) | (A) |
| | Eastbound approach | | 9.0 | A | 9.2 | A |
| | Northbound left turn | | 7.3 | A | 7.4 | A |
| 4 | Mt. Vernon Road / Mears Drive | SB Stop | | | | |
| | (overall) | | (10.7) | (B) | (10.0) | (B) |
| | Southbound approach | | 11.2 | B | 10.3 | B |
| | Eastbound left turn | | 7.7 | A | 7.6 | A |
| 5 | Mt. Pleasant Road / Garden Bar Rd | SB Stop | | | | |
| | (overall) | | (8.5) | (A) | (8.9) | (A) |
| | Southbound approach | | 9.0 | A | 9.7 | A |
| | Eastbound left turn | | 7.4 | A | 7.4 | A |
| 6 | Bell Road / Twilight Access | EB Stop | | | | |
| | (overall) | | - | - | - | - |
| | Eastbound approach | | | | | |
| | Northbound left turn | | | | | |

(XX) is overall weighted average delay and LOS for those movements yielding right of way
**BOLD** values exceed minimum overall LOS C or D Standard. **HIGHLIGHTED** values are a significant impact

## 8.6.7 CUMULATIVE PLUS PROJECT TRAFFIC OPERATIONS

Tables 8-20 and 8-21, below, present the daily traffic volumes anticipated on study area roads in the future if the HFRP Trails Expansion project is completed and other growth also occurs. As indicated, all roadways will remain within Placer County's minimum LOS C/D standard. Thus, the effects of the HFRP Trails Expansion project are not significant in these areas. Exhibit 8-4 presents the Weekday and Saturday peak hour traffic volumes occurring with the HFRP Trails Expansion project and other growth.

**Table 8-20. Cumulative Saturday Daily Traffic Volumes and Levels of Service**

| Road | From | To | Class | Saturday | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Cumulative | | Cumulative Plus HFRP | | |
| | | | | Daily Volume | LOS | Daily Volume | | LOS |
| | | | | | | HFRP Only | Total | |
| **Public Roads** | | | | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local - R | 915 | A | 120 | 1,035 | A |
| Mt. Vernon Road | Ayers Holmes Road | Buffalo Road | RC - R | 2,160 | B | 216 | 2,376 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC - R | 4,190 | C | 168 | 4,358 | C |
| Garden Bar Road | Wise Road | Mt. Pleasant Rd | Local - R | 1,284 | A | 0 | 1,284 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local - R | 802 | A | 0 | 802 | A |
| Bell Road | Lone Star Road | Cramer Road | EC - R | 986 | A | 34 | 1,020 | A |
| Bell Road | Cramer Road | Joeger Road | RC - R | 2,254 | B | 402 | 2,656 | B |
| Lone Star Road | Bell Road | SR 49 | Local - R | 1,944 | B | 630 | 2,574 | B |
| Cramer Road | Bell Road | SR 49 | Local - R | 1,158 | A | 407 | 1,565 | A |
| **Private Roads** | | | | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 1,290 | A | 664 | 1,954 | B |
| Auburn Valley Road | Fairway Court | Curtola Ranch Rd | Local - R | 585 | A | 664 | 1,249 | A |

**BOLD** values exceed minimum LOS C or LOS D standard.

**HIGHLIGHTED** values are a significant impact

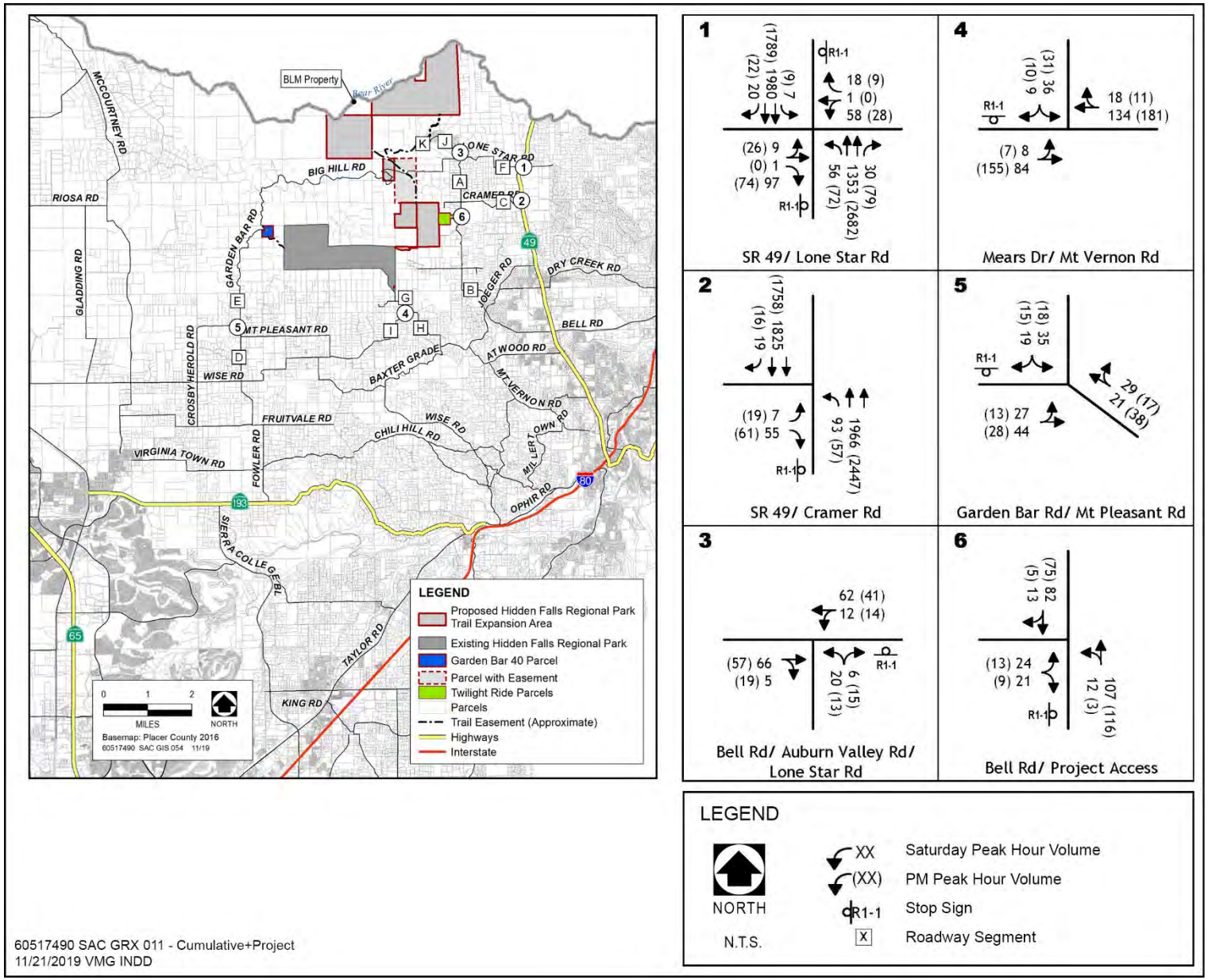
**Table 8-21. Cumulative Weekday Daily Traffic Volumes and Levels of Service**

| Road | From | To | Class | Weekday | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Cumulative | | Cumulative Plus HFRP | | |
| | | | | Daily Volume | LOS | Daily Volume | | LOS |
| | | | | | | HFRP Only | Total | |
| **Public Roads** | | | | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local – R | 979 | A | 56 | 1,035 | A |
| Mt. Vernon Road | Ayers Holmes Rd | Buffalo Road | RC – R | 2,734 | B | 96 | 2,830 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC – R | 4,278 | B | 80 | 4,358 | C |
| Garden Bar Road | Wise Road | Mt. Pleasant Rd | Local - R | 1,237 | A | 0 | 1,237 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local – R | 628 | A | 0 | 628 | A |
| Bell Road | Lone Star Road | Cramer Road | EC – R | 1,091 | A | 14 | 1,105 | A |
| Bell Road | Crammer Road | Joeger Road | RC – R | 2,272 | A | 170 | 2,442 | B |
| Lone Star Road | Bell Road | SR 49 | Local – R | 2,294 | B | 280 | 2,574 | B |
| Cramer Road | Bell Road | SR 49 | Local – R | 1,388 | A | 217 | 1,605 | B |
| **Private Roads** | | | | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 1,393 | A | 294 | 1,687 | B |
| Auburn Valley Road | Fairway Court | Curtola Ranch Rd | Local - R | 440 | A | 294 | 734 | A |

**BOLD** values exceed minimum LOS C or LOS D standard.

**HIGHLIGHTED** values are a significant impact

Table 8-22 compares the long-term cumulative Level of Service projected at study intersections under the No Project and Plus Project conditions. While many locations will continue to satisfy the adopted minimum LOS standard, two intersections will operate with conditions will that exceed the minimum standard for overall LOS if the HFRP Trails Expansion project proceeds.




Source: KD Anderson & Associates in 2019

**Exhibit 8-4. Cumulative Plus HFRP Trails Expansion Project Volumes and Lane Configurations**

**Table 8-22. Cumulative Plus Project Intersection Levels of Service**

| # | Location | Control | Weekday PM Peak Hour | | | | Saturday Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cumulative No Project | | Cumulative Plus Project | | Cumulative No Project | | Cumulative Plus Project | |
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | | | | | | | | | |
| | (overall) | | **(192.0)** | **(F)** | **(197.2)** | **(F)** | **(174.8)** | **(F)** | **(229.3)** | **(F)** |
| | Eastbound approach | EB/WB Stop | >300 | F | >300 | F | >300 | F | >300 | F |
| | Westbound approach | | >300 | F | >300 | F | >300 | F | >300 | F |
| | Northbound left turn | | 18.9 | C | 19.3 | C | 22.1 | C | 24.2 | C |
| | Southbound left turn | | 33.6 | D | 33.8 | D | 13.1 | B | 13.2 | B |
| 2 | SR 49 / Cramer Road | | | | | | | | | |
| | (overall) | EB Stop | (30.9) | (D) | **(36.6)** | **(E)** | (21.5) | (C) | (30.3) | (C) |
| | Eastbound approach | | 42.0 | E | 50.0 | E | 23.0 | C | 37.3 | E |
| | Northbound left turn | | 17.3 | C | 17.7 | C | 20.9 | C | 22.9 | C |
| 3 | Bell Rd / Auburn Valley Rd / Lone Star Rd | | | | | | | | | |
| | (overall) | EB Stop | (8.7) | (A) | (8.8) | (A) | (8.5) | (A) | (9.2) | (A) |
| | Eastbound approach | | 9.0 | A | 9.1 | A | 9.2 | A | 9.7 | A |
| | Northbound left turn | | 7.3 | A | 7.3 | A | 7.4 | A | 7.5 | A |
| 4 | Mt. Vernon Road / Mears Drive | | | | | | | | | |
| | (overall) | SB Stop | (10.7) | (B) | (10.7) | (B) | (10.0) | (B) | (10.1) | (B) |
| | Southbound approach | | 11.2 | B | 11.2 | B | 10.3 | B | 10.5 | B |
| | Eastbound left turn | | 7.7 | A | 7.7 | A | 7.6 | A | 7.6 | A |
| 5 | Mt. Pleasant Road / Garden Bar Rd | | | | | | | | | |
| | (overall) | SB Stop | (8.5) | (A) | (8.5) | (A) | (8.9) | (A) | (8.9) | (A) |
| | Southbound approach | | 9.0 | A | 9.0 | A | 9.7 | A | 9.7 | A |
| | Eastbound left turn | | 7.4 | A | 7.4 | A | 7.4 | A | 7.4 | A |
| 6 | Bell Road / Twilight Access | | | | | | | | | |
| | (overall) | EB Stop | | | (9.1) | (A) | | | (9.2) | (A) |
| | Eastbound approach | | | | 8.9 | A | | | 9.6 | A |
| | Northbound left turn | | - | - | 7.4 | A | - | - | 7.4 | A |

(XX) is overall weighted average delay and LOS for those movements yielding right of way
**BOLD** values exceed minimum overall LOS C or D Standard. **HIGHLIGHTED** values are a significant impact

As discussed above, the California Transportation Commission (CTC) approved the programming of the SR 49 Safety Improvements Project into the 2018 State Highway Operation and Protection Program (SHOPP) with $26.3 million in project funding during their August 2019 meeting. The project includes two roundabouts and a concrete median barrier from 0.3 miles south of Lorenson Road/Florence Lane to 0.3 miles north of Lone Star Road. This project has not been assumed in the cumulative analysis as it was not programmed or funded at the time of the release of the NOP.

The **SR 49 / Lone Star Road** intersection currently operates and will continue to operate at LOS F in the weekday p.m. and Saturday peak hour. Traffic operations exceed LOS D with and without the project during both peak hours. The significance of the project's impact at intersections controlled by side street stop signs is based on the incremental change in delay and is also predicated on satisfaction of peak hour traffic signal warrants. In this case, the incremental change in overall delay (5.2 seconds in p.m. and 54.5 seconds on Saturday) exceeds the

incremental change allowed under Placer County methodology (i.e., 2.5 seconds) and projected traffic volumes do satisfy peak hour warrants under this scenario. For the reasons stated above, the project's traffic contribution to the SR 49/Lone Star Road intersection is considered to be substantial.

Traffic operations at the **SR 49 / Cramer Road** intersection would degrade from LOS D to LOS E during the weekday PM peak hour with the proposed project. Caltrans' SR 49 Safety Improvements Project would restrict turning movements to right turns only to and from the Cramer Road. Construction of the Caltrans project will reduce delay and improve LOS to meet the County's standards at this location.

Measures to achieve acceptable LOS are subject to Caltrans approval on this state highway, and as noted in the SR-49 TCR, a regional approach incorporating roundabouts at selected intersections may be pursued by Caltrans and the County. Alternatively, a traffic signal at this location would result in LOS D conditions, which would satisfy Placer County's minimum LOS standards. Any improvement to the state highway is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires that an Intersection Control Evaluation (ICE) report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout.

As noted earlier, funding sources have just recently been identified for improvements to the SR 49 corridor north of Dry Creek Road. If not otherwise funded, Placer County could elect to identify a strategy for the overall traffic controls in the area and update its fee program to address the local share of these costs. The HFRP Trails Expansion Project is subject to the traffic mitigation fee program and could contribute its fair share toward the cost of constructing SR 49 corridor improvements through payment of adopted fees. However, any improvements on SR 49 would require approval from Caltrans and the County cannot guarantee that the improvements would occur.

The SR 49/Cramer Road intersection will operate at LOS E in the weekday peak hour. Because LOS E conditions exceed LOS D standard and peak hour traffic signal warrants are satisfied, the project's impact is potentially significant at this intersection. However, long range planning is underway for the SR 49 corridor. As part of these efforts, improvements could be made that would reduce the volume of traffic on Cramer Road. For example, the plan for SR 49 roundabouts could involve new roundabout intersections at Lone Star Road and Lorensen Road with a continuous raised median between these locations. Thus, access at the SR 49 / Cramer Road intersection may be limited to right turns in and out only, and this measure would reduce the amount of background traffic on Cramer Road as well as the amount of HFRP project traffic.

Measures to reduce this impact to a less than significant level are subject to Caltrans approval on this state highway, and as noted earlier a regional approach incorporating roundabouts at selected intersections may be pursued by Caltrans and the County. Any improvements on SR 49 would require approval from Caltrans and the County cannot guarantee that the improvements would occur.

**Cumulative Plus Project Traffic Signal Warrants:** The status of peak hour traffic signal warrants with implementation of the HFRP Trails Expansion project was determined. Beyond the two locations on SR 49, no additional intersections carry volumes that satisfy rural traffic signal warrants.

# 9.0 AIR QUALITY

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) air quality findings; describes the existing HFRP and proposed trail network expansion project area (project area) environmental setting and pertinent regulations; evaluates the potential for short-term and long-term project-related impacts on air quality; and provides mitigation measures as necessary to reduce those impacts. The methods of analysis for short-term construction, long-term regional (operational), local mobile source, odor, and toxic air contaminant (TAC) emissions are consistent with the recommendations of the Placer County Air Pollution Control District (PCAPCD).

## 9.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 HFRP CERTIFIED EIR

As discussed in Section 1.2, the focus of the SEIR is to determine whether the proposed HFRP trails expansion would result in effects not discussed in the prior certified EIR, substantially increase the effect compared to that discussed in the prior certified EIR, or would be consistent with the findings of the prior certified EIR.

### 9.1.1 FINDINGS OF FACT

A summary of the findings of fact adopted for the 2010 Certified HFRP is provided below. Chapter 9, "Air Quality," of the 2010 HFRP Certified EIR included a detailed discussion of the park environmental and regulatory setting, potential impacts on air quality resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts.

- Short-term emissions of ozone precursors and fugitive dust from construction of trails and other facilities would not exceed PCAPCD's significance thresholds for criteria air pollutants and ozone precursors. Thus, the park project would not violate or contribute substantially to an existing or projected air quality violation, nor expose sensitive receptors to substantial concentrations of pollutants. The impact was determined to be **less than significant**.

- Long-term regional emissions associated with operation of the park project would not exceed PCAPCD's significance thresholds for criteria air pollutants and ozone precursors; thus, project operation would not violate or contribute substantially to an existing or project air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with air quality planning effort. The impact was considered **less than significant**.

- The park project would not expose sensitive receptors to substantial emissions of toxic air contaminants during project construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. The impact was determined to be **less than significant**.

- Construction workers and surrounding residents could be exposed to dust from asbestos rock and soils during project construction. Implementing a mitigation measure to conduct on-site soil testing and prepare and implement an Asbestos dust control plan, if needed, reduced this potentially significant impact to **less than significant**.

- Long-term operational (local) mobile-source emissions of carbon monoxide during park project operation would not violate California Ambient Air Quality Standards or National Ambient Air Quality Standards, nor expose sensitive receptors to substantial pollutant concentrations. The impact was considered **less than significant**.

### 9.1.2 2010 HFRP Mitigation Measures Adopted by the County

Implementation of the following mitigation measures, which were adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on air quality to less than significant.

- **Mitigation Measure 9-1:** Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, if Needed.

- **Mitigation Measure 9-2:** List Standard Air Quality Notes on Grading and Improvement Plans.

## 9.2 ENVIRONMENTAL SETTING

This section of the Subsequent EIR describes the air quality related environmental conditions of the proposed HFRP expansion. See Chapter 9.0 “Air Quality” of the 2010 Certified HFRP EIR for information about the existing park.

The existing park and project area are located in the western portion of Placer County, California, which is within the Sacramento Valley Air Basin (SVAB). The SVAB also comprises all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba Counties and the eastern portion of Solano County. Western Placer County is also part of the Sacramento Federal Ozone Nonattainment Area, which comprises Sacramento and Yolo Counties and parts of El Dorado, Solano, and Sutter Counties. PCAPCD works in conjunction with the air pollution control and air quality management districts of these contiguous jurisdictions to develop plans to bring the entire ozone nonattainment area into compliance.

Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the ability of the atmosphere to transport and dilute such emissions. Terrain, wind, atmospheric stability, and the presence of sunlight all affect transport and dilution. Therefore, existing air quality conditions in the project area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

### 9.2.1 Topography, Climate, and Meteorology

Land within the SVAB is relatively flat, bordered by the north Coast Range to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay Area.

The Mediterranean climate of the project area is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit ($^{o}$F) to more than 100$^{o}$F. The inland location and surrounding mountains shelter the area from many of the ocean breezes that keep the coastal regions moderate in temperature.

Most precipitation in the SVAB results from air masses that move in from the Pacific Ocean, usually from the west or northwest during the winter months. More than half the total annual precipitation falls during the winter rainy season (November–February); the average winter temperature is a moderate 49$^{o}$F. Periods of dense and persistent low-level fog, which are most prevalent between storms, are common during the winter months in the SVAB. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry-land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Poor air movement occurs most frequently in fall and winter when high-pressure cells are present over the project area and meteorological conditions are stable. The lack of surface winds during these periods, combined with the reduced vertical flow caused by less surface heating, reduces the influx of air and results in the concentration of pollutants. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May–October is ozone season in the SVAB, and is characterized by poor air movement in the mornings and the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen ($NO_X$), which in turn result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, during approximately half of the time from July to September, a phenomenon known as the Schultz Eddy prevents this from occurring. The Schultz Eddy phenomenon causes the wind pattern to shift southward, blowing air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the air basin and contributes to violations of the ambient air quality standards.

The winds and unstable atmospheric conditions associated with the passage of winter storms result in periods of low air pollution and excellent visibility. Precipitation and fog tend to reduce or limit some pollutant concentrations. For instance, clouds and fog block sunlight, which is required to fuel photochemical reactions that form ozone. Because carbon monoxide (CO) is partially water soluble, precipitation and fog also tend to reduce concentrations of CO in the atmosphere. In addition, respirable particulate matter with an aerodynamic diameter of 10 micrometers or less ($PM_{10}$) can be washed from the atmosphere through wet deposition processes, such as rain, snow, and fog. However, between winter storms, high pressure and light winds contribute to low-level temperature inversions and stable atmospheric conditions, resulting in the concentration of air pollutants (e.g., CO, $PM_{10}$).

Air quality in Placer County is also affected by inversion layers, which occur when a layer of warm air traps a layer of cold air, preventing vertical dispersion of air contaminants. The presence of an inversion layer results in higher concentrations of pollutants near ground level. Inversions occur primarily in the autumn and summer, formed by warm air subsiding in a region of high pressure with accompanying light winds that do not provide adequate dispersion of air pollutants.

## 9.2.2 AIR QUALITY—CRITERIA AIR POLLUTANTS

Concentrations of several air pollutants—ozone, CO, nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), respirable and fine particulate matter ($PM_{10}$ and $PM_{2.5}$), and lead—are used as indicators of ambient air quality conditions. These pollutants are commonly referred to as "criteria air pollutants" because they are the most prevalent air pollutants known to be deleterious to human health, and extensive documentation is available on the health-effects criteria for these pollutants.

Source types, health effects, and future trends associated with each air pollutant are described below along with the most current attainment area designations and monitoring data for the project area and vicinity.

### OZONE

Ozone is a colorless gas that is odorless at ambient levels. It exists primarily as a beneficial component of the ozone layer in the upper atmosphere (stratosphere), shielding the earth from harmful ultraviolet radiation emitted by the sun, and as a pollutant in the lower atmosphere (troposphere).

Ozone is the primary component of urban smog. It is not emitted directly into the air, but is formed through a series of reactions involving Volatile Organic Compound (VOC) and $NO_X$ in the presence of sunlight. VOC emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. $NO_X$ includes various combinations of nitrogen and oxygen, including nitric oxide, $NO_2$, and others, typically resulting from the combustion of fuels.

Emissions of both VOCs and $NO_X$ are considered critical to ozone formation; therefore, either VOCs or $NO_X$ can limit the rate of ozone production. When the production rate of $NO_X$ is lower, indicating that $NO_X$ is scarce, the rate of ozone production is $NO_X$-limited. Under these circumstances, ozone levels could be most effectively reduced by lowering current and future $NO_X$ emissions (from fuel combustion), rather than by lowering VOC emissions. Rural areas tend to be $NO_X$-limited, while areas with dense urban populations tend to be VOC-limited.

Meteorology and terrain play a major role in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum conditions for formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. Therefore, ozone is a regional pollutant that often affects large areas. In general, ozone concentrations over or near urban and rural areas reflect an interplay of emissions of ozone precursors, transport, meteorology, and atmospheric chemistry.

Individuals exercising outdoors, children, and people with lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term ozone exposure (lasting for a few hours) can result in changes in breathing patterns, reductions in breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes. In recent years, a correlation has also been reported between elevated ambient ozone levels and increases in daily hospital admission rates and mortality (EPA 2017a). An increased risk of asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

### Carbon Monoxide

Carbon Monoxide (CO) is a colorless and odorless gas that, in the urban environment, is produced primarily by the incomplete burning of carbon in fuels, primarily from mobile (transportation) sources. As of the 2014 EPA National Emissions Inventory, more than 50 percent of the nation's CO emissions were from mobile sources (EPA 2018). The remaining emissions are primarily from fires (both wildfires and prescribed fires), releases from vegetation and soil, wood-burning stoves, incinerators, and industrial sources. Relatively high concentrations are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300–600 feet) of heavily traveled roadways. Vehicular traffic emissions can cause localized CO impacts, and severe vehicle congestion at major signalized intersections can generate elevated CO levels, called "hot spots," which can be hazardous to human receptors adjacent to the intersections. Overall, CO emissions are decreasing, in part because the Federal Motor Vehicle Control Program has mandated increasingly lower emission levels for vehicles manufactured since 1973.

CO enters the bloodstream through the lungs by combining with hemoglobin, which normally supplies oxygen to the cells. However, CO combines with hemoglobin much more readily than oxygen does, drastically reducing the amount of oxygen available to the cells. Adverse health effects from exposure to high CO concentrations, which typically can occur only indoors or within similarly enclosed spaces, include dizziness, headaches, and fatigue. CO exposure is especially harmful to individuals who suffer from cardiovascular and respiratory diseases (EPA 2017b).

### Nitrogen Dioxide

Nitrogen Dioxide ($NO_2$) is one of a group of highly reactive gases known as oxides of nitrogen, or $NO_X$. $NO_2$ is formed when ozone reacts with nitric oxide (i.e., NO) in the atmosphere and is listed as a criteria pollutant because $NO_2$ is the more toxic than nitric oxide. The major human-made sources of $NO_2$ are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. The combined emissions of nitric oxide and $NO_2$ are referred to as $NO_X$ and reported as equivalent $NO_2$. Because $NO_2$ is formed and depleted by reactions associated with ozone, the $NO_2$ concentration in a particular geographical area may not be representative of local $NO_X$ emission sources. $NO_X$ also reacts with water, oxygen, and other chemicals to form nitric acids, contributing to the formation of acid rain.

Inhalation is the most common route of exposure to $NO_2$. Breathing air with a high concentration of $NO_2$ can lead to respiratory illness. Short-term exposure can aggravate respiratory diseases, particularly asthma, resulting in respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Longer exposures to elevated concentrations of $NO_2$ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these subgroups (EPA 2017c).

### Sulfur Dioxide

Sulfur Dioxide ($SO_2$) is one component of the larger group of gaseous oxides of sulfur ($SO_X$). $SO_2$ is used as the indicator for the larger group of $SO_X$, as it is the component of greatest concern and found in the atmosphere at much higher concentrations than other gaseous $SO_X$. $SO_2$ is typically produced by such stationary sources as coal

and oil combustion facilities, steel mills, refineries, and pulp and paper mills. The major adverse health effects associated with $SO_2$ exposure pertain to the upper respiratory tract. On contact with the moist mucous membranes, $SO_2$ produces sulfurous acid, a direct irritant. Concentration rather than duration of exposure is an important determinant of respiratory effects. Children, the elderly, and those who suffer from asthma are particularly sensitive to effects of $SO_2$ (EPA 2017d).

$SO_2$ also reacts with water, oxygen, and other chemicals to form sulfuric acids, contributing to the formation of acid rain. $SO_2$ emissions that lead to high concentrations of $SO_2$ in the air generally also lead to the formation of other $SO_X$, which can react with other compounds in the atmosphere to form small particles, contributing to particulate matter pollution, which can have health effects of its own.

### Particulate Matter

Particulate Matter (PM) is a complex mixture of extremely small particles and liquid droplets made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Natural sources of particulates include windblown dust and ocean spray. The major areawide sources of $PM_{2.5}$ and $PM_{10}$ are fugitive dust, especially from roadways, agricultural operations, and construction and demolition. Other sources of $PM_{10}$ include crushing or grinding operations. $PM_{2.5}$ sources also include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes. Exhaust emissions from mobile sources contribute only a very small portion of directly emitted $PM_{2.5}$ and $PM_{10}$ emissions; however, they are a major source of VOCs and $NO_X$, which undergo reactions in the atmosphere to form PM, known as secondary particles. These secondary particles make up the majority of PM pollution.

The size of PM is directly linked to its potential for causing health problems. EPA is concerned about particles that are 10 micrometers in diameter or smaller, because these particles generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects, even death. The adverse health effects of $PM_{10}$ depend on the specific composition of the particulate matter. For example, health effects may be associated with metals, polycyclic aromatic hydrocarbons, and other toxic substances adsorbed onto fine PM (referred to as the “piggybacking effect”), or with fine dust particles of silica or asbestos. Effects from short- and long-term exposure to elevated concentrations of $PM_{10}$ include respiratory symptoms, aggravation of respiratory and cardiovascular diseases, a weakened immune system, and cancer (WHO 2016). $PM_{2.5}$ poses an increased health risk because these very small particles can be inhaled deep in the lungs and may contain substances that are particularly harmful to human health.

### Lead

Lead is a highly toxic metal that may cause a range of human health effects. Lead is found naturally in the environment and is used in manufactured products. Previously, the lead used in gasoline anti-knock additives represented a major source of lead emissions to the atmosphere. Soon after its inception, EPA began working to reduce lead emissions, issuing the first reduction standards in 1973. Lead emissions have decreased substantially as a result of the near-elimination of leaded gasoline use. Metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose “hot spot” problems in some areas. As a result, the California Air Resources Board (CARB) has identified lead as a toxic air contaminant (TAC).

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotients. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death, although it appears that lead does not directly affect the respiratory system.

## MONITORING STATION DATA AND ATTAINMENT AREA DESIGNATIONS

Health-based air quality standards have been established for criteria pollutants by EPA at the national level and ARB at the state level. These standards were established to protect the public with a margin of safety from adverse health impacts caused by exposure to air pollution. In addition to criteria pollutants, California has established standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride.

Table 9-1 presents the national ambient air quality standards (NAAQS) and the California ambient air quality standards (CAAQS). These health-based pollutant standards are reviewed with a legally prescribed frequency and are revised as warranted by new data on health and welfare effects. Each standard is based on a specific averaging time over which the concentration is measured. Different averaging times are based on protection from short-term, high-dosage effects or longer term, low-dosage effects. NAAQS may be exceeded no more than once per year; CAAQS are not to be exceeded.

**Table 9-1. National and California Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards a | National Standards b | |
|---|---|---|---|---|
| | | Concentration c | Primary c,d | Secondary c,e |
| Ozone [f] | 1 hour | 0.09 ppm (180 μg/m$^3$) | – | Same as primary standard |
| | 8 hours | 0.070 ppm (137 μg/m$^3$) | 0.070 ppm (147 μg/m$^3$) | |
| Respirable particulate matter—10 micrometers or less [g] | 24 hours | 50 μg/m$^3$ | 150 μg/m$^3$ | Same as primary standard |
| | Annual arithmetic mean | 20 μg/m$^3$ | – | |
| Fine particulate matter—2.5 micrometers or less [g] | 24 hours | – | 35 μg/m$^3$ | Same as primary standard |
| | Annual arithmetic mean | 12 μg/m$^3$ | 12 μg/m$^3$ | 15 μg/m |
| Carbon monoxide | 8 hours | 9.0 ppm (10 mg/m$^3$) | 9 ppm (10 mg/m$^3$) | None |
| | 1 hour | 20 ppm (23 mg/m$^3$) | 35 ppm (40 mg/m$^3$) | |
| | 8 hours (Lake Tahoe) | 6 ppm (7 mg/m$^3$) | – | – |
| Nitrogen dioxide [h] | Annual arithmetic mean | 0.030 ppm (57 μg/m$^3$) | 0.053 ppm (100 μg/m$^3$) | Same as primary standard |
| | 1 hour | 0.18 ppm (339 μg/m$^3$) | 100 ppb (188 μg/m$^3$) | None |
| Sulfur dioxide [i] | Annual arithmetic Mean | – | 0.030 ppm (for certain areas) [i] | – |
| | 24 hours | 0.04 ppm (105 μg/m$^3$) | 0.14 ppm (for certain areas) [i] | – |
| | 3 hours | – | – | 0.5 ppm (1,300 μg/m$^3$) |
| | 1 hour | 0.25 ppm (655 μg/m$^3$) | 75 ppb (196 μg/m$^3$) | – |

**Table 9-1. National and California Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards a | National Standards b | |
|---|---|---|---|---|
| | | Concentration c | Primary c,d | Secondary c,e |
| Lead [j,k] | 30-day average | 1.5 μg/m$^3$ | – | – |
| | Calendar quarter | – | 1.5 μg/m$^3$ (for certain areas) [j] | Same as primary standard |
| | Rolling 3-month average | – | 0.15 μg/m$^3$ | |
| Visibility-reducing particles [l] | 8 hours | See footnote l | No national standards | |
| Sulfates | 24 hours | 25 μg/m$^3$ | | |
| Hydrogen sulfide | 1 hour | 0.03 ppm (42 μg/m$^3$) | | |
| Vinyl chloride [j] | 24 hours | 0.01 ppm (26 μg/m$^3$) | | |

Notes: μg/m$^3$ = micrograms per cubic meter; mg/m$^3$ = milligrams per cubic meter; ppb = parts per billion; ppm = parts per million

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter ($PM_{10}$, $PM_{2.5}$, and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For $PM_{10}$, the 24-hour is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m$^3$ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standards.

[c] Concentration expressed first in the units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and reference pressure of 760 torr; "ppm" in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] *National Primary Standards:* The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] *National Secondary Standards:* The levels of air quality necessary to protect public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m$^3$ to 12.0 μg/m$^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m$^3$, as was the annual secondary standard of 15 μg/m$^3$. The existing 24-hour $PM_{10}$ standards (primary and secondary) of 150 μg/m$^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[h] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from 100 ppb to 0.100 ppm.

[i] On June 2, 2010, a new 1-hour $SO_2$ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical of 0.075 ppm.

[j] ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/m$^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

[l] In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and the "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: CARB 2017a

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state (CARB 2017b). Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Concentrations of criteria air pollutants are measured at several monitoring stations in the SVAB. The Auburn– 11645 Atwood Road and Roseville–North Sunrise Avenue stations are the closest to the project area with recent data for ozone, $NO_2$, CO, $PM_{10}$, and $PM_{2.5}$. Table 9-2 summarizes the air quality data from these stations for the most recent 3 years.

**Table 9-2. Summary of Annual Ambient Air Quality Data (2015–2017)**

| Pollutant | California Standard | Federal Standard | Year | Maximum Concentration[a] | Days State/Federal Standard Exceeded |
|---|---|---|---|---|---|
| Ozone ($O_3$)[b] | 0.09 ppm (1-Hour) | NA | 2015<br>2016<br>2017 | 0.098 ppm<br>0.115 ppm<br>0.117 ppm | 1/0<br>5/0<br>4/0 |
| | 0.070 ppm (8-Hour) | 0.070 ppm (8-Hour) | 2015<br>2016<br>2017 | 0.084 ppm<br>0.092 ppm<br>0.088 ppm | 6/6<br>21/20<br>10/9 |
| Nitrogen Dioxide ($NO_2$)[b] | 0.18 ppm (1-Hour) | 0.100 ppm (1-Hour) | 2015<br>2016<br>2017 | 0.051 ppm<br>0.050 ppm<br>0.059 ppm | 0/0<br>0/0<br>0/0 |
| Particulate Matter ($PM_{10}$) [b, d] | 50 µg/m$^3$ (24-Hour) | 150 µg/ m$^3$ (24-Hour) | 2015<br>2016<br>2017 | 35.7 µg/ m$^3$<br>39.2 µg/ m$^3$<br>65.8 µg/ m$^3$ | 1/0<br>0/0<br>5/0 |
| Fine Particulate Matter ($PM_{2.5}$) [b, d] | 12 µg/m$^3$ (Annual Average) | 12 µg/ m$^3$ (Annual Average) | 2015<br>2016<br>2017 | 8.1 µg/ m$^3$<br>6.9 µg/m$^3$<br>7.2 µg/ m$^3$ | 0/0<br>0/0<br>0/0 |

Notes: ppm = parts per million; $PM_{10}$ = particulate matter 10 microns in diameter or less; NM = not measured; µg/m$^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less; NA = not applicable. NA = data not available

[1] State and national statistics may differ for the following reasons: State statistics are based on California-approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers. State statistics are based on local conditions while national statistics are based on standard conditions. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

[2] Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

[a] Maximum concentration is measured over the same period as the California Standards.

[b] Roseville-N Sunrise Avenue Monitoring Station located at 151 North Sunrise Avenue, Roseville, CA.

[c] The United States Environmental Protection Agency revoked the federal 1-hour standard in June of 2005.

[d] $PM_{10}$ and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Source: California Air Resources Board, Aerometric Data Analysis and Measurement System (ADAM) Air Quality Data Statistics, http://www.arb.ca.gov/adam/welcome.html

Both CARB and EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants published by the agencies. The purpose of these designations is to identify areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified." The "unclassified" designation is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called "nonattainment-transitional." The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment. The most recent attainment designations with respect to the Placer County portion of the SVAB are shown in Table 9-3 for each criteria air pollutant.

**Table 9-3. Summary of Ambient Air Quality Standards and Western Placer County Designations**

| Pollutant | Averaging Time | California | | National Standards [1] | |
|---|---|---|---|---|---|
| | | Standards [2,3] | Attainment Status [4] | Concentration[5] | Attainment Status [7] |
| Ozone | 1-hour | 0.09 ppm (180 µg/m$^3$) | N | – | – |
| | 8-hour | 0.07 ppm (137 µg/m$^3$) | N | 0.07 ppm[6] (150 µg/m$^3$) | N |
| Carbon Monoxide (CO) | 1-hour | 20 ppm (23 mg/m$^3$) | A | 35 ppm (40 mg/m$^3$) | A |
| | 8-hour | 9 ppm (10 mg/m$^3$) | | 9 ppm (10 mg/m$^3$) | A |
| Nitrogen Dioxide ($NO_2$) [8] | Annual Arithmetic Mean | 0.030 ppm (57 µg/m$^3$) | A | 0.053 ppm (100 µg/m$^3$) | A |
| | 1-hour | 0.18 ppm (339 µg/m$^3$) | A | 0.100 ppm | U |
| Sulfur Dioxide ($SO_2$) | Annual Arithmetic Mean | – | A | 0.030 ppm (80 µg/m$^3$) | A |
| | 24-hour | 0.04 ppm (105 µg/m$^3$) | A | 0.14 ppm (365 µg/m$^3$) | |
| | 1-hour | 0.25 ppm (655 µg/m$^3$) | A | 0.075 ppm (196 µg/m3) | |
| Respirable Particulate Matter ($PM_{10}$) | Annual Arithmetic Mean | 20 µg/m$^3$ | N | - | – |
| | 24-hour | 50 µg/m$^3$ | | 150 µg/m$^3$ | A |
| Fine Particulate Matter ($PM_{2.5}$) | Annual Arithmetic Mean | 12 µg/m$^3$ | A | 12 µg/m$^3$ | – |
| | 24-hour | – | – | 35 µg/m$^3$ | A |
| Lead [9] | 30-day Average | 1.5 µg/m$^3$ | – | NA | A |
| | Calendar Quarter | NA | – | 1.5 µg/m$^3$ | A |
| | Rolling 3-Month Average | NA | – | 1.5 µg/m$^3$ | – |

Notes: µg/m$^3$ = micrograms per cubic meter; ppm = parts per million

1 National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone and particulates, and those based on annual averages, are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the three-year average of the fourth highest daily concentration is 0.075 ppm (775 ppb) or less. The 24-hour $PM_{10}$ standard is attained when the three-year average of the 99th percentile of monitored concentrations is less than 150 µg/m$^3$. The 24-hour $PM_{2.5}$ standard is attained when the three-year average of 98th percentile is less than 35 µg/m$^3$.

2 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and suspended particulate matter ($PM_{10}$) are values that are not to be exceeded. he standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the $PM_{10}$ annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

3 Concentration expressed first in units in which it was issued (i.e., parts per million [ppm] or micrograms per cubic meter [µg/m$^3$]). Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Unclassified (U): The data are incomplete and do not support a designation of attainment or nonattainment.
Attainment (A): The state standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment (N): There was at least one violation of a state standard for that pollutant in the area.
Nonattainment/Transitional (NT) (a subcategory of the nonattainment designation): The area is close to attaining the standard for that pollutant.

5 National air quality standards are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.

6 The EPA revised the 8-hour ozone standard from 0.075 to 0.070 ppm on October 1, 2015.

7 Nonattainment (N): Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
Attainment (A): Any area that meets the national primary or secondary ambient air quality standard for the pollutant.
Unclassifiable (U): Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

8 On February 19, 2008, the Office of Administrative Law approved a new $NO_2$ ambient air quality standard, which lowers the 1-hour standard to 0.19 ppm and establishes a new annual standard of 0.030 ppm. These changes became effective March 20, 2008.

9 CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Sources: Placer County Air Pollution Control District, 2017 CEQA Air Quality Handbook.

### 9.2.3 EXISTING AIR QUALITY—TOXIC AIR CONTAMINANTS

Both federal and state air quality regulations also focus on TACs. A TAC is an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may otherwise pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their toxicity or health risk may pose a threat to public health even at low concentrations. TACs can be separated into carcinogens and noncarcinogens, based on the nature of the effects associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Noncarcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur.

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), most of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (i.e., diesel particulate matter [DPM]). Other TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

DPM differs from other TACs because it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, type of lubricating oil, and presence or absence of an emission control system. Unlike the other TACs, no ambient monitoring data are available for DPM because no routine measurement method currently exists. However, emissions of DPM are forecasted to decline; it is estimated that emissions of DPM in 2035 will be less than half those in 2010, further reducing statewide cancer risk and non-cancer health effects (CARB 2016).

### 9.2.3 EXISTING AIR QUALITY—ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The human nose is the sole sensing device for odors. The ability to detect odors varies considerably among the population and is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may be sensitive to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person (e.g., an odor from a fast food restaurant) may be perfectly acceptable to another. It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition occurs only with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the odor is quite difficult to detect or recognize. At some point

during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

### 9.2.4 SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others, because of the types of population groups or activities involved. Children, pregnant women, the elderly, those with existing health conditions, and athletes or others who engage in frequent exercise are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered sensitive receptors include schools, daycare centers, parks and playgrounds, and medical facilities.

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to the pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time.

## 9.3 REGULATORY SETTING UPDATE

Air quality in Placer County is regulated by EPA, CARB, PCAPCD, and the County. Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent. The regulatory frameworks for criteria air pollutants, TACs, and odor emissions are described separately below.

#### FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table 9-1, EPA has established NAAQS for ozone, CO, $NO_2$, $SO_2$, $PM_{10}$, $PM_{2.5}$, and lead. The CAA also required each state to prepare an air quality control plan referred to as a state implementation plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. EPA must review all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and to determine whether implementing them will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may cause sanctions to be applied to transportation funding and stationary air pollution sources in the air basin.

## STATE PLANS, POLICIES, REGULATIONS, AND LAWS

CARB is responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS) (Table 9-3). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources, and provides districts with the authority to regulate indirect sources.

Among CARB's other responsibilities are overseeing local air districts' compliance with California and federal laws, approving local air quality plans, submitting SIPs to EPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

California's adopted 2007 *State Strategy for the State Implementation Plan for Federal $PM_{2.5}$ and 8-Hour Ozone Standards* was submitted to EPA in November 2007 as a revision to the SIP (CARB 2017b). In July 2011, CARB approved revisions to the 2007 SIP that updated the CARB rulemaking calendar, made adjustments to transportation conformity budgets, revised reasonable further progress tables and made associated reductions for contingency purposes, and updated actions to identify advanced emission control technologies (CARB 2017b). In 2008, EPA strengthened the 8-hour ozone standard to 75 parts per billion (ppb), and again further strengthened this standard in 2015 down to 70 ppb. Sixteen areas in California were designated nonattainment in 2012. In 2012, EPA also strengthened the annual fine particulate matter ($PM_{2.5}$) standard to 12 micrograms per cubic meter ($\mu g/m^3$), and designated four areas in California as nonattainment for this standard. CARB released the *Revised Proposed 2016 State Strategy for the State Implementation Plan*, describing the proposed commitment to achieve the reductions necessary from mobile sources, fuels, and consumer products to meet federal ozone and $PM_{2.5}$ standards over the next 15 years (CARB 2017b).

## LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

### Placer County Air Pollution Control District

PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean-air strategy of PCAPCD includes the preparation of plans and programs for the attainment of ambient air-quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. PCAPCD also inspects stationary sources of air pollution, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAAA, and CCAA.

All projects within PCAPCD's jurisdictional area are subject to PCAPCD rules and regulations in effect at the time of construction. Specific PCAPCD rules that could be applicable to the proposed project may include but are not limited to the following:

- **Rule 202—Visible Emissions**. A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour which is as dark or darker in shade as that designated as number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

- **Rule 205—Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause to have a natural tendency to cause injury or damage to business or property. The provisions of Rule 205 do not apply to odors emanating from agriculture operations necessary for the growing of crops or raising of fowl or animals.

- **Rule 217—Cutback and Emulsified Asphalt Paving Materials**. A person shall not manufacture for sale nor use for paving, road construction, or road maintenance any: rapid cure cutback asphalt; slow cure cutback asphalt containing organic compounds which evaporate at 500°F or lower as determined by current American Society for Testing and Materials (ASTM) Method D402; medium cure cutback asphalt except as provided in Section 1.2; or emulsified asphalt containing organic compounds which evaporate at 500°F or lower as determined by current ASTM Method D244, in excess of 3% by volume.

- **Rule 218—Application of Architectural Coatings**. No person shall manufacture, blend, or repackage for sale within PCAPCD; supply, sell, or offer for sale within PCAPCD; or solicit for application or apply within the PCAPCD, any architectural coating with a volatile organic carbon (VOC) content in excess of the corresponding specified manufacturer's maximum recommendation.

- Rule 228—Fugitive Dust.

  - ***Visible Emissions Not Allowed Beyond the Boundary Line:*** A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.

  - ***Visible Emissions from Active Operations:*** In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines.

  - ***Concentration Limit:*** A person shall not cause or allow $PM_{10}$ levels to exceed 50 micrograms per cubic meter ($\mu g/m^3$) (24-hour average) when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for $PM_{10}$ monitoring.

- ***Track-Out onto Paved Public Roadways:*** Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.

  – The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures, and removed within 1 hour from adjacent streets such material any time track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations.

  – All visible roadway dust tracked out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a High Efficiency Particulate Air (HEPA) filter–equipped vacuum device shall be used for roadway dust removal.

  – Any material tracked out, or carried by erosion, and clean-up water, shall be prevented from entering waterways or storm water inlets as required to comply water quality control requirements.

- ***Minimum Dust Control Requirements:*** The following dust mitigation measures are to be initiated at the start and maintained throughout the duration of the construction or grading activity, including any construction or grading for road construction or maintenance.

  – Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered.

  – The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.

  – Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.

  – Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.

  – Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.

  – When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended.

  – No trucks are allowed to transport excavated material off-site unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either covered with tarps; or wetted and loaded such that the material does not touch the front, back, or sides

of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment.

- ***Wind-Driven Fugitive Dust Control:*** A person shall take action(s), such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.

- **Rule 501—General Permit Requirement:** Any person operating an article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, shall first obtain a written permit from the Air Pollution Control Officer (APCO). Stationary sources subject to the requirements of Rule 507, Federal Operating Permit Program, must also obtain a Title V permit pursuant to the requirements and procedures of that rule.

PCAPCD has also produced the *CEQA Thresholds of Significance Justification Report* (2016) *and the CEQA Air Quality Handbook* (2017), which outlines guidance for analyzing construction and operational emissions from land use projects. PCAPCD also includes a list of analysis expectations and methodologies for CEQA analyses. On October 13, 2016, the PCAPCD Board of Directors adopted the *Review of Land Use Projects under CEQA Policy*, which includes recommendations for thresholds of significance for criteria air pollutant emissions. In developing the thresholds, PCAPCD took into account health-based air quality standards and the strategies to attain air quality standards, historical CEQA project review data in Placer County, and the geographic and land use features of Placer County. PCAPCD's emissions thresholds of significance are discussed further below in Section 9.4.2, "Thresholds of Significance."

### Air Quality Plans

At the county level, air quality is managed through land use and development planning practices implemented by Placer County and through permitted source controls implemented by the PCAPCD. The PCAPCD is also the agency responsible for enforcing federal and state air quality requirements and for establishing air quality rules and regulations. The PCAPCD attains and maintains air quality conditions in Placer County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The PCAPCD's clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The PCAPCD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the Federal Clean Air Act, the Clean Air Act Amendments of 1990, and the California Clean Air Act.

#### *Air Quality Attainment Plan*

Under the Clean Air Act requirements, each nonattainment area throughout the state is required to develop a regional air quality management plan. Collectively, all regional air quality management plans throughout the state constitute the State Implementation Plan (SIP). With jurisdiction over part of the Sacramento Federal Ozone Nonattainment Area (which covers the project area), the PCAPCD worked with the other local air districts in the Sacramento area to develop a regional air quality management plan to describe and demonstrate how Placer County, as well as the Sacramento federal nonattainment area, would attain the required federal 8-hour ozone standard by the proposed attainment deadline. In accordance with the requirements of the Clean Air Act, the

PCAPCD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Ozone Attainment Plan) in July 2017. The ozone SIP for 2008 standard was approved by each air district in the Sacramento region between August and October in 2017. The PCAPCD adopted the Ozone Attainment Plan on October 12, 2017, and CARB determined that the plan meets Clean Air Act requirements and approved it on November 16, 2017, as a revision to the SIP. The updated ozone SIP was submitted to the EPA on December 18, 2017. Accordingly, the 2017 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan is the applicable air quality plan for the region.

Since the adoption of the Ozone Attainment Plan in early 2009 and its subsequent revision in 2011 and 2017, there were significant updates to emissions calculation methods, vehicle traveled activity data, and growth assumptions used to develop the plan. The 2017 Ozone Attainment Plan revision shows that the region continues to meet federal progress requirements. The 2008 federal 8-hour ozone NAAQS lowered the health-based limit for ambient ozone from 84 ppb to 75 ppb averaged over eight hours. The area is classified as serious based on its design value of 102 ppb at the Folsom Monitoring Site. The region requested reclassification to severe-15 under the 1997 ozone standard because it could not attain by the deadline for a serious area. The region was classified as a severe-15 area with a demonstrated attainment deadline of July 20, 2027.

The 2017 Ozone Attainment Plan updates the emissions inventory, provides a review of photochemical modeling results based on changes in the emissions inventories, updates the reasonable further progress and attainment demonstrations, revises adoption dates for control measures, and establishes new motor vehicle emissions budgets for transportation conformity purposes. The 2017 Ozone Attainment Plan also includes a vehicle mile traveled (VMT) offset demonstration that showed the emissions reduction from transportation control measures and strategies is sufficient to offset the emissions increase due to VMT growth. The 2017 Ozone Attainment Plan contains regional and local control measures that address both ROG and $NO_X$. A single $NO_X$ pollutant strategy is not appropriate because, even though ROG (and volatile organic compound) measures are not as effective as $NO_X$ control measures, ROG-reducing measures still provide needed reductions in ozone formation.

The SIP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The attainment status for Placer County is included in Table 9-3.

### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are relevant goals and policies identified by the *Placer County General Plan* (Placer County 2013) for air quality.

**GOAL 6.F:** To protect and improve air quality in Placer County.

- **Policy 6.F.1.** The County shall cooperate with other agencies to develop a consistent and effective approach to air quality planning and management.
- **Policy 6.F.2.** The County shall develop mitigation measures to minimize stationary source and area source emissions.

- **Policy 6.F.3.** The County shall support the Placer County Air Pollution Control District (PCAPCD) in its development of improved ambient air quality monitoring capabilities and the establishment of standards, thresholds, and rules to more adequately address the air quality impacts of new development.

- **Policy 6.F.4.** The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality.

- **Policy 6.F.5.** The County shall encourage project proponents to consult early in the planning process with the County regarding the applicability of Countywide indirect and areawide source programs and transportation control measure (TCM) programs. Project review shall also address energy-efficient building and site designs and proper storage, use, and disposal of hazardous materials.

- **Policy 6.F.6.** The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.

- **Policy 6.F.7.** The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.

- **Policy 6.F.8.** The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.

- **Policy 6.F.9.** In reviewing project applications, the County shall consider alternatives or amendments that reduce emissions of air pollutants.

- **Policy 6.F.10.** The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 *Air Quality Attainment Plan* (or updated edition).

**GOAL 6.G:** To integrate air quality planning with the land use and transportation planning process.

- **Policy 6.G.1.** The County shall require new development to be planned to result in smooth flowing traffic conditions for major roadways. This includes traffic signals and traffic signal coordination, parallel roadways, and intra- and inter-neighborhood connections where significant reductions in overall emissions can be achieved.

- **Policy 6.G.2.** The County shall continue and, where appropriate, expand the use of synchronized traffic signals on roadways susceptible to emissions improvement through approach control.

- **Policy 6.G.3.** The County shall encourage the use of alternative modes of transportation by incorporating public transit, bicycle, and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities.

- **Policy 6.G.4.** The County shall consider instituting disincentives for single-occupant vehicle trips, including limitations in parking supply in areas where alternative transportation modes are available and other measures identified by the Placer County Air Pollution Control District and incorporated into regional plans.

- **Policy 6.G.5.** The County shall endeavor to secure adequate funding for transit services so that transit is a viable transportation alternative. New development shall pay its fair share of the cost of transit equipment and facilities required to serve new projects.

- **Policy 6.G.6.** The County shall require large new developments to dedicate land for and construct appropriate improvements for park-and-ride lots, if suitably located.

- **Policy 6.G.7.** The County shall require stationary-source projects that generate significant amounts of air pollutants to incorporate air quality mitigation in their design.

### 9.3.1 TOXIC AIR CONTAMINANTS

Air quality regulations also focus on TACs. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. This contrasts with the criteria air pollutants, for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 9-3). Instead, EPA and CARB regulate hazardous air pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology for toxics (MACT) or best available control technology for toxics (BACT) to limit emissions. These in conjunction with additional rules set forth by PCAPCD establish the regulatory framework for TACs.

#### FEDERAL PLANS, POLICES REGULATIONS AND LAWS

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP for major sources of HAPs may differ from those for area sources. Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources.

The CAAA called on EPA to identify and set two emissions standards. First, the EPA developed technology-based emissions standards designed to reduce emissions as much as feasible. These standards are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. For the second, the EPA is required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of MACT.

The CAAA also required EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAAA required the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

#### STATE AND LOCAL PLANS, POLICIES, REGULATIONS, AND LAWS

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Chapter 1047, Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act (AB 2588 [Chapter 1252, Statutes of 1987]). AB 1807 sets forth a formal procedure for CARB to designate substances as

TACs. A total of 243 substances have been designated TACs under California law; they include the 189 (federal) HAPs adopted in accordance with AB 2728, which required the state to identify the federal HAPs as TACs to make use of the time and costs the EPA had already invested in evaluating and identifying hazardous/toxic substances.

Once a TAC is identified, CARB then adopts an airborne toxics control measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions; for example, the ATCM limits truck idling to 5 minutes (Title 13, Section 2485 of the California Code of Regulations [i.e., 13 CCR Section 2485]).

The Air Toxics Hot Spots Information and Assessment Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

According to the California Almanac of Emissions and Air Quality (CARB 2013), most of the estimated health risk from TACs is attributed to relatively few compounds, the most dominant being DPM. In 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled vehicles and engines. The regulation is anticipated to result in an 85 percent decrease in statewide diesel health risk by 2020 relative to the diesel health risk year in the year 2000 (CARB 2000). Additional regulations apply to new trucks and diesel fuel. Subsequent CARB regulations on diesel emissions include the On-Road Heavy Duty Diesel Vehicle (In Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-road Diesel Vehicle Regulation, and the New Off-road Compression Ignition Diesel Engines and Equipment Program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment.

*Air Quality and Land Use Handbook: A Community Health Perspective,* published by CARB, provides guidance on land use compatibility with sources of TACs (CARB 2005). The handbook is not a law or adopted policy but offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way.

State regulations on asbestos are related to demolition and renovations, and waste disposal of asbestos-containing materials. California also has a statewide regulation covering naturally occurring asbestos. The Asbestos ATCM for Asbestos-Containing Serpentine, adopted in 1990, prohibited the use of serpentine aggregate for surfacing if the asbestos content was 5% or more asbestos. The limit on asbestos content was lowered to 0.25% in 2000 and modified to include ultramafic rock (CARB 2015).

In July 2001, CARB adopted an ATCM for construction, grading, quarrying, and surface mining operations that regulates grading and excavation activities in areas of serpentine or ultramafic rocks. In addition, the Governor's Office of Planning and Research issued a memorandum providing guidance to lead agencies in analyzing the impacts of naturally occurring asbestos during the CEQA review process.

At the local level, air pollution control or management districts may adopt and enforce CARB control measures. Under PCAPCD Rule 501 (General Permit Requirements), Rule 502 (New Source Review), and Rule 507 (Federal Operating Permit), all sources that possess the potential to emit TACs must obtain permits from the

district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new-source review standards and air toxics control measures. PCAPCD limits emissions and public exposure to TACs through a number of programs. The district prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

Sources that require a permit are analyzed by PCAPCD (e.g., through a health risk assessment) based on their potential to emit toxics. A health risk assessment is a tool used to determine the exposure of sensitive receptors to TAC emissions based on a 70-year exposure period. If it is determined that the project will emit toxics in excess of PCAPCD's threshold of significance for TACs, as identified below, sources have to implement the best available control technology for TACs (T-BACT) to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after T-BACT has been implemented, PCAPCD will deny the permit required by the source. This helps to prevent new problems and reduces emissions from existing older sources by requiring them to apply new technology when retrofitting with respect to TACs. It is important to note that the air quality permitting process applies only to stationary sources; properties that may be exposed to elevated levels of TACs from nonstationary sources (e.g., vehicles) and the nonstationary sources themselves are not subject to this process or to any requirements of T-BACT implementation. Rather, emissions controls on nonstationary sources are subject to regulations implemented on the state and federal level.

PCAPCD also enforces CARB's Asbestos ATCM to control dust emissions and human exposure to the asbestos fibers found in serpentine and ultramafic rock (and soil derived from those substrates). The ATCM can be summarized as follows (CARB 2015): Large construction projects are required to prepare a dust mitigation plan and receive approval from the district before the start of the project. The plan must specify measures that will be taken to ensure that no visible dust crosses the property line and must address specific topics. The dust mitigation plan must address control of emissions from track-out, disturbed surface areas, storage piles, on-site vehicle traffic, off-site transport of material, and earthmoving activities. The plan must also address post construction stabilization and air monitoring (if required by the district). Table 1 of the Asbestos ATCM (not shown in this EIR) shows control options for the topics to be addressed in the asbestos dust mitigation plan for large construction projects. Many of these requirements would already be carried out by such projects to minimize nuisance dust complaints and protect water quality.

In addition, PCAPCD adopted a local dust control regulation in 2003 that goes beyond the state's measures by providing standards for the control of sources of fugitive dust, including dust from construction activities, and is not limited in applicability to areas where naturally occurring asbestos is found. In the identified areas of higher probability for the presence of naturally occurring asbestos, and where it or rock potentially containing it is known to be located, PCAPCD enforces the implementation of CARB's Asbestos ATCM.

### 9.3.2 ODORS

PCAPCD has identified types of facilities that have been known to produce odors: wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause any physical harm and no requirements for their control are included in federal or state air quality regulations, PCAPCD has no rules or standards related to odor emissions other than Rule 205 (Nuisance). Any actions related to odors are based on citizen complaints to local governments and PCAPCD.

One of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors, also referred to as a buffer zone or setback. The greater the distance between an odor source and receptor, the less concentrated the odor emission would be when reaching the receptor.

Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area.

PCAPCD Rule 205 (Nuisance) addresses odor exposure and prohibits discharging air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public; that endanger the public's comfort, repose, health, or safety; or that cause or have a natural tendency to cause injury or damage to business or property.

## 9.4 IMPACTS

### 9.4.1 ANALYSIS METHODOLOGY

The focus of this analysis is on air quality impacts that would result from proposed project implementation. This analysis also considers how the HFRP Trails Expansion Project would or would not change the conclusions of the prior environmental review.

Methodologies recommended by PCAPCD were used to assess short-term (construction-related) and long-term regional and local (operational) impacts on air quality; impacts from TACs and odors; and short-term emissions of criteria air pollutants (e.g., particulate matter) and ozone precursors (e.g., ROG and $NO_X$) generated by project construction. Where quantification was required, emissions from project construction were modeled using the California Emissions Estimator Model (CalEEMod) as recommended by PCAPCD. Project-generated emissions were modeled based on general information provided in the project description and trip generation from the transportation analysis prepared for this project (see Chapter 3.0, "Project Description," and Chapter 8.0, "Transportation and Circulation," of this SEIR). Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, and number of construction personnel. The duration of construction activities for the project is estimated to be approximately 5 years. Refer to Appendix E for the CalEEMod outputs and results. Table 9-4: Construction Emissions, presents the anticipated daily short-term construction emissions.

Operational emissions associated with the proposed project are estimated using the CalEEMod. Project-generated increases in emissions would be predominantly associated with motor vehicle use. The increase of traffic over existing conditions as a result of the project was obtained from Traffic Impact Analysis for HFRP Expansion, prepared by KD Anderson & Associates, Inc. (2019).

### 9.4.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on air quality if it would:

- conflict with or obstruct implementation of the applicable air quality plan,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable NAAQS or CAAQS,
- expose sensitive receptors to substantial pollutant concentrations, or
- result in other emissions (such as those leading to odors) adversely affecting a substantial number or people.

As stated in the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. Thus, pursuant to the PCAPCD-recommended thresholds (PCAPCD 2017) the proposed project would result in a potentially significant impact on air quality if it would:

- generate short-term construction-related emissions of ROG, $NO_X$, or $PM_{10}$ that would exceed the PCAPCD-recommended mass emissions threshold of 82 pounds per day (lb/day);
- generate long-term, operational (regional) emissions of ROG or $NO_X$ would exceed the PCAPCD-recommended mass emissions threshold of 55 lb/day, or 82 lb/day of $PM_{10}$;
- contribute to localized concentrations of air pollutants at nearby receptors that would exceed applicable ambient air quality standards; or
- expose sensitive receptors to excessive nuisance odors, as defined under PCAPCD Rule 205. [See "Regional and Local Plans, Policies, Regulations, and Ordinances," in Section 3.3.2.1, "Criteria Air Pollutants," above.]

For cumulative impacts, PCAPCD states that if a project's impacts would be significant at the project level (i.e., would exceed any of the thresholds listed above), it could also be considered significant on a cumulative level. Chapter 18 of this SEIR addresses cumulative impacts in detail.

### 9.4.3 IMPACT ANALYSIS

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| IMPACT 9-1 | Air Quality—Short-Term Emission of Criteria Air Pollutants and Precursors during Construction. *Modeled short-term emissions of ozone precursors and fugitive dust from construction of trails and other park and expansion project facilities would not exceed Placer County Air Pollution Control District's (PCAPCD's) significance threshold of 82 lb/day. Thus, emissions of Reactive Organic Gasses (ROG), Oxides of Nitrogen ($NO_X$), and Particulate Matter with a diameter of 10 micrometers or less ($PM_{10}$) associated with Project construction would not violate or contribute substantially to an existing or projected air quality violation, nor would they expose sensitive receptors to substantial concentrations of pollutants.* |
| Significance | *Less that Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *None Warranted* |

| | |
|---|---|
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 park project was to be constructed in phases over several years with the construction of bridge crossings, expansion of the parking area (including relocating the adjacent helistop) at the Didion Ranch portion of the park, and paving and widening of the access road from Garden Bar Road to the park the largest construction-related sources of emissions during Phase 1. Construction of the bunkhouse and restroom facilities was to be the largest contributors to air pollutant emissions; minor emissions were expected from other park improvements. The simultaneous occurrence of these activities and trail construction represented the worst-case scenario for daily air emissions. Based on the modeling conducted, construction-related activities were expected to result in ROG, $NO_X$, and $PM_{10}$ emissions that would not exceed PCAPCD's significance threshold of 82 lb/day. Construction-related activities associated with the worst-case day were anticipated to result in project-generated daily unmitigated emissions of approximately 43 lb/day of ROG, 67 lb/day of $NO_X$, and 48 lb/day of $PM_{10}$. Thus, project-generated construction-related emissions of criteria air pollutants and precursor emissions were not expected to violate or contribute substantially to an existing or projected air quality violation, and/or expose sensitive receptors to substantial pollutant concentrations. As a result, this impact was considered **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The proposed Trails Expansion project would be constructed in phases over a number of years as funding allows. Each phase would allow an additional level of public access to the trail expansion areas. Phase 1 of the construction activities is expected to occur over the next 5 years. Construction of trails and expansion facilities, including bridge crossings, expansion of the parking (including helicopter landing zones), and paving and widening of the access roads at Garden Bar Road, Bell Road, and Curtola Road to the new park entry gates would be the largest construction-related sources of emissions during Phase 1. Construction of access drives and parking lots would be the largest contributors to air pollutant emissions; minor emissions are expected from other trail expansion improvements. It is likely that trail construction would occur at the same time as the construction of these facilities. The simultaneous occurrence of these activities would represent the worst-case scenario for daily air emissions.

Vegetation along the trail corridor would be cleared by hand before construction, but removal of such vegetation would be minimized to the extent possible. Vegetation removed would be chipped or lopped and scattered near the trails. Topical exposed areas prone to erosion would be stabilized with certified weed free straw in accordance with the Storm Water Pollution Prevention Plan. The trail tread would be excavated using a Sweco trail dozer, a mini excavator, and other machinery capable of conforming to the dimensional requirements of the trails.

Construction-related emissions are described as short-term or temporary and have the potential to represent a significant impact with respect to air quality. Project construction activities would result in emissions of criteria air pollutants ($PM_{10}$ and $PM_{2.5}$) and ozone precursors (ROG and $NO_X$) from site preparation (e.g., excavation, grading, and clearing); exhaust from equipment, material transport vehicles, and worker commute vehicles; vehicle travel on unpaved roads; paving; application of architectural coatings; and other miscellaneous activities.

Construction of the trail system and the associated recreational facilities is expected to generate a maximum of 400 delivery truck trips.

Emissions of fugitive PM dust (e.g., $PM_{10}$ and $PM_{2.5}$) are associated primarily with ground disturbance activities during site preparation, such as grading, and vary as a function of soil silt content, soil moisture, wind speed, acreage of the disturbance area, vehicle miles traveled (VMT) on- and off-site, and other parameters. Exhaust emissions from diesel equipment and worker commute trips also contribute to short-term increases in total PM emissions, but to a much lesser extent. Emissions of ozone precursors are associated primarily with exhaust emitted by off-road (e.g., gas and diesel) construction equipment. Worker commute trips and other construction-related activities (e.g., application of architectural coatings) also contribute to short-term increases in such emissions.

Emissions of criteria air pollutants and precursors associated with project construction were modeled in accordance with methodologies recommended by PCAPCD. For Phase 1 of construction, truck traffic is expected to be approximately 10–20% of the total number of truck trips (i.e., 40–80 truck trips). However, exact project-specific data for each construction phase (e.g., required types and numbers of construction equipment and maximum daily acreage disturbed) were not available at the time of this analysis. Project-generated emissions were modeled based on general information provided in the project description (see Chapter 3.0 of this EIR) and default CalEEMod settings and parameters attributable to the construction period and site location.

Table 9-4 summarizes the modeled emissions for the construction phases. Construction-related effects on air quality were determined by comparing the modeling results by construction phase against applicable PCAPCD significance thresholds. Refer to Appendix E of this SEIR for detailed modeling input parameters and results.

**Table 9-4. Summary of Modeled Short-Term Daily Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction (Unmitigated)**

| Phase | Emissions (lb/day) | | | |
|---|---|---|---|---|
| | ROG | $NO_X$ | $PM_{10}$ | $PM_{2.5}$ [1] |
| Overall Construction | 11 | 82 | 22 | 12 |
| PCAPCD Significance Threshold | 82 | 82 | 82 | - |
| **PCAPCD Threshold Exceeded?** | **No** | **No** | **No** | **No** |

Notes:

lb/day = pounds per day; $NO_X$ = oxides of nitrogen; PCAPCD = Placer County Air Pollution Control District; $PM_{2.5}$ = fine particulate matter; $PM_{10}$ = respirable particulate matter; ROG = reactive organic gases

[1] PCAPCD has not adopted a significance threshold for $PM_{2.5}$; however, the emissions are included for disclosure purposes.

[2] 14 miles of trail would be constructed. Emissions include on-road emissions resulting from truck trips.

[3] Facilities construction phases are assumed to occur sequentially with no potential overlap between phases.

[4] Worst-case daily emissions were estimated under the premise that trail construction, road improvements, and the facilities construction phase with the highest emissions for each pollutant could occur simultaneously.

Note: Total daily emissions rounded to the nearest whole number. All emissions are for 2018.

Refer to Appendix D for detailed assumptions and modeling output files.

Source: Data modeled by AECOM in 2019

As shown in Table 9-4, construction-related activities associated with the worst-case scenario of summer grading would result in project-generated daily unmitigated emissions of approximately 11 lb/day of ROG, 82 lb/day of $NO_X$, and 22 lb/day of $PM_{10}$. The project emissions do not exceed the adopted thresholds for PCAPCD, and

therefore, short-term emissions of criteria air pollutants and precursors associated with the proposed project construction would be **less than significant**.

Short-term emissions of criteria air pollutants and precursors during construction of the proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 9-2 | Air Quality—Long-Term, Regional Emissions of Criteria Air Pollutants and Ozone Precursors Associated with Project Operation. *Operational activities associated with the proposed HFRP Trails Expansion Project would not result in emissions of ROG, $NO_X$, or $PM_{10}$ exceeding PCAPCD's significance threshold. Thus, emissions of criteria air pollutants and precursors associated with Project operation would not violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with air quality planning effort.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

Park project implementation was expected to result in area-source emissions from trail landscape activities and use of heating fuels at the buildings. However, the trail system and recreational facilities were to be designed to be as low maintenance as possible and would likely not require use of mobilized or mechanical equipment, and bunkhouse use would be sporadic. In addition, the increase of visitors to the park would result in additional vehicle trips, particularly on weekends. Based on the modeling conducted, operational activities would not result in project-generated emissions of ROG, $NO_X$, and $PM_{10}$ exceeding PCAPCD's applicable thresholds at of 82 lb/day $NO_X$. Modeled emissions of criteria air pollutants and precursors associated with project operation showed operational activities would result in project-generated daily unmitigated emissions of approximately 4.4lb/day of ROG, 7.2 lb/day of $NO_X$, and 5.9 lb/day of $PM_{10}$. In addition, because the proposed project would be consistent with the land use designations contained in the County's General Plan, emissions associated with the proposed land uses would have been accounted for in regional air quality planning efforts. As a result, this impact was considered **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Operation of the trails expansion project would generate emissions of ROG, $NO_X$ and PM generated by motor vehicles as visitors travel to and from the expansion areas, utility usage, and water/wastewater conveyance as well as a backup generator for emergency and maintenance use. Table 9-5 depicts the estimated emissions with project operation and provides a comparison against the PCAPCD thresholds. As shown, the project would generate

emissions of criteria air pollutants less than the adopted standards, and therefore, long-term emissions of criteria air pollutants and precursors associated with operation of the proposed project would be **less than significant**.

**Table 9-5. 2019 - Summary of Modeled Long-Term Emissions Associated with Project Operation**

| Source | Emissions (lb/day) | | | |
|---|---|---|---|---|
| | ROG | $NO_X$ | $PM_{10}$ | $PM_{2.5}$ [1] |
| Mobile Source | 7.3 | 45.4 | 58.2 | 15.8 |
| Stationary Sources | 8.3 | <1.0 | <1.0 | <1.0 |
| Area Sources | <1.0 | <1.0 | <1.0 | <1.0 |
| **Total** | 15.9 | 46.2 | 58.3 | 15.9 |
| PCAPCD Significance Threshold | 55 | 55 | 82 | – |
| **PCAPCD Threshold Exceeded?** | **No** | **No** | **No** | **No** |

Notes:
lb/day = pounds per day; $NO_X$ = oxides of nitrogen; PCAPCD = Placer County Air Pollution Control District; $PM_{2.5}$ = fine particulate matter; $PM_{10}$ = respirable particulate matter; ROG = reactive organic gases
[1] PCAPCD has not adopted a significance threshold for $PM_{2.5}$; however, the emissions are included for disclosure purposes.
Refer to Appendix D for detailed assumptions and modeling output files.
Source: Data modeled by AECOM in 2019

The proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects regarding air quality impacts from long-term operations of the Project based on changes in the project, circumstances or new information.

IMPACT 9-3 — Air Quality—Exposure of Sensitive Receptors to Emissions of Toxic Air Contaminants (TACs).
*The proposed Project would not expose sensitive receptors to substantial emissions of TACs during park and project construction because construction emissions would be temporary and would rapidly dissipate with distance from the source. However, construction workers and surrounding residents could be exposed to dust from asbestos rock and soils during park and project construction.*

Significance — *Potentially Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)*

Mitigation Proposed — *Mitigation Measure 9-1: Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed*

*Mitigation Measure S9-2: List Standard Air Quality Notes on Grading and Improvement Plans.*

Residual Significance — *Less than Significant*

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 Certified EIR found a potential cancer risk from the long-term inhalation of diesel PM. Exhaust from off-road, heavy-duty diesel equipment used for site preparation (e.g., excavation, grading, and clearing), as well as paving, application of architectural coatings, and other miscellaneous project construction activities would result in short-term emissions of diesel PM. However, the use of off-road heavy-duty diesel equipment during the 2010 HFRP project construction would be temporary. For this reason, combined with the highly dispersive properties

of diesel PM (Zhu et al. 2002) and further reductions in exhaust emissions, emissions of TACs associated with project construction, it was determined the HFRP project would not expose sensitive receptors to substantial emissions of TACs. Mobile sources of TACs include land uses that involve the long-term use of heavy-duty diesel trucks. It was determined that implementation of the HFRP project would not lead to the development of any facilities that would require the long-term use of heavy-duty diesel trucks (e.g., loading docks).

The 2010 Certified EIR determined the HFRP project was located in an area moderately likely to contain naturally occurring asbestos, and that ground disturbance activities during construction could expose construction workers and surrounding residents to dust from rocks and soil containing naturally occurring asbestos. Although the amount of asbestos was likely relatively small, this impact was determined to be potentially significant. Implementation of Mitigation Measures 9-1 and 9-2 were found to reduce this impact to a **less-than-significant** level.

### 2019 HFRP Trails Expansion Project Impact Analysis

The 2019 HFRP Trails Expansion project as proposed may result in exposure of sensitive receptors to emissions of TACs from on-site sources during project construction and exposure to emissions from operational sources. These potential impacts are discussed separately below.

#### ON-SITE EMISSIONS ASSOCIATED WITH PROJECT CONSTRUCTION

Exhaust from off-road, heavy-duty diesel equipment used for site preparation (e.g., excavation, grading, and clearing), as well as paving, application of architectural coatings, and other miscellaneous project construction activities would result in short-term emissions of diesel particulate matter (PM). Diesel PM was identified as a TAC by Air Resources Board (ARB) in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential noncancer health impacts (CARB 2017c). PCAPCD has not adopted a methodology for analyzing such impacts.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC to be compared to applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for such an individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period and duration of activities associated with the proposed project (OEHHA 2015). The use of off-road heavy-duty diesel equipment would be temporary, and the use of this equipment is limited to the new parking and entry roads.

The ARB, PCAPCD, and Placer County recognize the public health risk reductions that can be realized by idling limitations for on-road and off-road equipment. The proposed project would be required to comply with the following idling restriction (five minute limitation) requirements from ARB and Placer County Code during construction activity, including the use of both on-road and off-road equipment:

- California Air Resources Board In-use Off-road Diesel regulation, Section 2449(d)(3): Off-road diesel equipment shall comply with the five minute idling restriction. Available via the web: www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf

- Placer County, Code Section 10.14. Available via the web: http://qcode.us/codes/placercounty/

Portable equipment and engines (i.e., back-up generators) 50 horsepower (hp) or greater, used during construction activities and operation require either a registration certificate issued by ARB, based on the California Statewide Portable Equipment Registration Program (PERP) or an Authority to Construct (ATC) permit issued by PCAPCD to operate. The proposed project would be conditioned to obtain all necessary permits from the ARB and PCAPCD prior to construction.

Sensitive receptors would not be exposed to substantial pollutant concentrations, given the highly dispersive properties of diesel PM (Zhu et al. 2002). Short-term construction and operationally-generated Toxic Air Contaminant emissions would not expose sensitive receptors to substantial pollutant concentrations.

Because the project area is located in an area that is moderately likely to contain naturally occurring asbestos, ground disturbance activities during construction could expose construction workers and surrounding residents to dust from rocks and soil containing naturally occurring asbestos. Some portions of the project area could contain serpentine or ultramafic rock that is common to foothill areas of the county. These types of rock contain thin veins of asbestos that can become airborne when disturbed by grading or mining. Overall, the amount of asbestos is relatively small and typically amounts to less than 1% of the total rock mass. Nevertheless, when material containing naturally occurring asbestos is disturbed, asbestos fibers may be released and become airborne, thereby creating a potential health hazard. Thus, this impact would be potentially significant. However, implementation of Mitigation Measures 9-1 and S9-2 would reduce this impact to a **less-than-significant** level.

### Emissions from On-Site Stationary, Mobile, and Area Sources during Project Operation

There are no major existing stationary sources of TACs within 2 miles of the project area. Vehicles on Garden Bar Road, Bell Road, Curtola Ranch Road, and other roads in the vicinity are sources of diesel PM and other TACs associated with vehicle exhaust. Project implementation would not lead to the operation of any stationary sources of TACs. Mobile sources of TACs include land uses that involve the long-term use of heavy-duty diesel trucks. Implementation of the proposed project would not lead to the development of any facilities that would require the long-term use of heavy-duty diesel trucks (e.g., loading docks).

Unlike during short-term construction activities, long-term operation of the project would not result in significant ground disturbance and associated potential for this material to become airborne. Thus, assuming average conditions, exposure of operational users of the park project to naturally occurring asbestos fibers would be minimal and would not be expected to result in a health hazard and impacts related to naturally-occurring asbestos have been determined to be less than significant.

The proposed expansion of the HFRP trails network would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 9-4 | Air Quality—Long-Term (Local) Mobile-Source Emissions of Carbon Monoxide during Project Operation. *Long-term operational (local) mobile-source emissions of CO would not violate or contribute substantially to a violation of the CAAQS or NAAQS, nor would they expose sensitive receptors to substantial pollutant concentrations.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

CO concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions), particularly during peak commute hours, and of meteorological conditions. The 2010 project's traffic analysis indicated that long-term operational (local) mobile-source emissions of carbon monoxide during park project operation would not violate California Ambient Air Quality Standards or National Ambient Air Quality Standards, nor expose sensitive receptors to substantial pollutant concentrations. All signalized intersections that were analyzed would operate at LOS E or LOS F under cumulative conditions with or without the project. As a result, this impact was considered **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

As discussed above, CO concentration is a direct function of motor vehicle activity (e.g., idling time and traffic flow conditions), particularly during peak commute hours, and of meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses such as residential areas, schools, and hospitals. As a result, PCAPCD recommends analysis of CO emissions at a local rather than a regional level.

An appropriate qualitative screening procedure is provided in the procedures and guidelines contained in *Transportation Project-Level Carbon Monoxide Protocol*, published by the University of California, Davis, Institute of Transportation Studies, to determine whether a project poses the potential for a CO hotspot (UCD ITS 1997). A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. In accordance with the statewide CO Protocol, the PCAPCD has established screening methodology for localized CO emissions, which are intended to provide a conservative indication of whether project-generated vehicle trips would result in the generation of localized CO emissions that would contribute to an exceedance of AAQS and potentially expose sensitive receptors to substantial CO concentrations. Per the PCAPCD's screening methodology, if the project would result in vehicle operations producing more than 550 lbs/day of CO emissions and if either of the following scenarios are true, the project could result in localized CO emissions that would violate CO standards:

- Degrade the peak hour level of service (LOS) on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity from an acceptable LOS (i.e., LOS A, B, C, or D) to an unacceptable LOS (i.e., LOS E or F); or

- Substantially worsen an already existing unacceptable peak hour LOS on one or more streets or at one or more intersections in the project vicinity. "Substantially worsen" includes an increase in delay at an intersection by 10 seconds or more when project-generated traffic is included.

According to the Air Quality analysis performed for the proposed project, operation of the project would result in maximum mobile source CO emissions of 159.7 lbs/day (see Appendix E). Consequently, CO emissions related to operation of the proposed project would be far below the 550 lbs/day screening threshold used by PCAPCD. Therefore, according to the PCAPCD's screening methodology for localized CO emissions, the proposed project would not be expected to generate localized CO emissions that would contribute to an exceedance of AAQS, and the proposed project would not expose sensitive receptors to substantial concentrations of localized CO. As a result, this impact is considered **less than significant**.

The proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects of long-term mobile sources of CO during operation of the Project based on changes in the project, circumstances or new information

| | |
|---|---|
| IMPACT 9-5 | Air Quality—Exposure of Sensitive Receptors to Odors. *Construction of the proposed trails and recreational facilities would result in diesel exhaust emissions from on-site construction equipment. However, these emissions would be intermittent and would dissipate rapidly with an increase in distance from the source. The proposed Project development would not be a major source of odors.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR found that the park project would result in diesel exhaust emissions from on-site construction equipment during project construction. Such emissions would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. In addition, the project would not include the long-term operation of any new sources of odor; therefore, the project would not create objectionable odors affecting a substantial number of people. This impact was therefore considered to be **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptor. Although offensive odors

rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The proposed project would result in diesel exhaust emissions from on-site construction equipment during project construction. Such emissions would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. In addition, the proposed project would not include the long-term operation of any new sources of odor; therefore, the project would not create objectionable odors affecting a substantial number of people. This impact would be **less than significant**.

The proposed HFRP Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to exposure of sensitive receptors to odors based on changes in the project, circumstances or new information

## 9.5 MITIGATION MEASURES

Mitigation Measure 9-1: Conduct On-Site Soil Testing and Prepare and Implement an Asbestos Dust Control Plan, If Needed. *(Applies to Impact 9-3)*

Prior to construction activity, the County shall test the on-site soils for the presence of asbestos. If naturally-occurring asbestos, serpentine, or ultramafic rock is either known to be located onsite, or is disclosed in the project's geology/soils survey report, or if the project is located in, partly or entirely, "a most likely" to contain Naturally Occurring Asbestos Area, as shown on the Geologic maps prepared by the California Geologic Survey (formerly the California Division of Mines and Geology), the following measures shall be implemented.

The project shall comply with PCAPCD Rule 228 for fugitive dust control. When the construction area is equal to or greater than one acre, the applicant shall prepare an Asbestos Dust Mitigation Plan (ADMP) as required in Section 93105 of the California Health and Safety Code, "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations." The ADMP shall be submitted to the PCAPCD a minimum of 21 days before construction activity is scheduled to commence. The applicant should contact the PCAPCD before retaining a qualified state registered geologist to conduct initial geologic evaluations as part of the ADMP application process. The County shall submit the plan to the County Planning Department for review and PCAPCD for review and approval before construction of the first project phase. Approval of the plan must be received from PCAPCD before any asbestos-containing rock (serpentinite) can be disturbed. Upon approval of the asbestos dust control plan by PCAPCD, the County shall ensure that construction contractors implement the terms of the plan throughout the construction period.

Mitigation Measure S9-2: List Standard Air Quality Notes on Grading and Improvement Plans. *(Applies to Impact 9-3)*

The following standard notes shall be listed on all Grading/Improvement Plans:

a. Prior to construction activity, a Dust Control Plan or Asbestos Dust Mitigation Plan shall be submitted to the Placer County Air Pollution Control District (PCAPCD). The Dust Control Plan shall be submitted to the PCAPCD a minimum of 21 days before construction activity is scheduled to

commence. The Dust Control Plan can be submitted online via the fill-in form: http://www.placerair.org/dustcontrolrequirements/dustcontrolform.

b. Construction equipment exhaust emissions shall not exceed the PCAPCD Rule 202 Visible Emissions limitations. Operators of vehicles and equipment found to exceed opacity limits are to be immediately notified by the PCAPCD to cease operations, and the equipment must be repaired within 72 hours.

c. Dry mechanical sweeping is prohibited. Watering of a construction site shall be carried out to mitigate visible emissions. (Based on PCAPCD Rule 228 / Section 301).

d. The contractor shall apply water or use methods to control dust impacts offsite. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site. (Based on PCAPCD Rule 228 / section 304).

e. During construction activity, traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust or visible emissions from crossing the project boundary line. (Based on PCAPCD Rule 228 / section 401.2).

f. The contractor shall suspend all grading operations when fugitive dust exceeds the PCAPCD Rule 228 (Fugitive Dust) limitations. Visible emissions of fugitive dust shall not exceed 40% opacity, nor go beyond the property boundary at any time. Lime or other drying agents utilized to dry out wet grading areas shall not exceed PCAPCD Rule 228 limitations. (Based on PCAPCD Rule 228 / section 302 & 401.4).

g. The prime contractor shall be responsible for keeping adjacent public thoroughfares clean by keeping dust, silt, mud, dirt, and debris from being released or tracked offsite. Wet broom or other methods can be deployed as control and as approved by the individual jurisdiction. (Based on PCAPCD Rule 228/ section 401.5).

h. The contractor shall suspend all grading operations when wind speeds (including instantaneous gusts) are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures. (Based on PCAPCD Rule 228 / section 401.6).

i. To minimize wind-driven dust during construction, the prime contractor shall apply methods such as surface stabilization, the establishment of a vegetative cover, paving (or use of another method to control dust as approved by Placer County). (Based on PCAPCD Rule 228 / section 402).

j. The contractor shall not discharge into the atmosphere volatile organic compounds caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance unless such manufacture or use complies with the provisions of Rule 217 Cutback and Emulsified Asphalt Paving Materials.

k. During construction, open burning of removed vegetation is only allowed under PCAPCD Rule 304 Land Development Smoke Management. A Placer County Air Pollution Control District permit could be issued for land development burning, if the vegetation removed is for residential development

purposes from the property of a single or two-family dwelling or when the applicant has provided a demonstration as per Section 400 of the Rule that there is no practical alternative to burning and that the Air Pollution Control Officer (APCO) has determined that the demonstration has been made. The APCO may weigh the relative impacts of burning on air quality in requiring a more persuasive demonstration for more densely populated regions for a large proposed burn versus a smaller one. In some cases, all of the removed vegetative material shall be either chipped on site or taken to an appropriate recycling site, or if a site is not available, a licensed disposal site. (Based on PCAPCD Rule 304).

l. Any device or process that discharges 2 pounds per day or more of air contaminants into the atmosphere, as defined by Health and Safety Code Section 39013, may require an PCAPCD permit. Developers/contractors should contact the PCAPCD before construction and obtain any necessary permits before the issuance of a Building Permit. (PCAPCD Rule 501).

m. The contractor shall utilize existing power sources (e.g., power poles) or clean fuel (e.g., gasoline, biodiesel, natural gas) generators rather than temporary diesel power generators.

n. The contractor shall minimize idling time to a maximum of 5 minutes for all diesel-powered equipment. (Placer County Code Chapter 10, Article 10.14).

o. Idling of construction-related equipment and construction-related vehicles shall be minimized within 1,000 feet of any sensitive receptor (i.e., house, hospital, or school).

# 10.0 NOISE

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) findings related to noise; describes the HFRP (park) and proposed trail network expansion project area (project area) environmental setting and pertinent regulations; evaluates the potential for project-related impacts to on-site and adjoining land uses and existing plans and policies; and provides mitigation measures as necessary to reduce those impacts.

## 10.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 CERTIFIED EIR

### 10.1.1 FINDINGS OF FACT

As discussed in Section 1.2, this SEIR will consider the impacts of the HFRP Trails Expansion and compare it against the analysis contained in the 2010 HFRP certified EIR. The purpose is to ascertain whether the Trail Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, result in a new impact not previously identified, or require application of mitigation measures which were previously found infeasible, and not adopted for the prior project are currently feasible and should be incorporated into project approvals.

The topic of Noise was considered by Placer County in the 2010 HFRP Certified EIR. The following is a summary of the EIR findings made by the Board that pertain to noise.

- The 2010 HFRP Certified EIR determined that the project would result in less than significant impacts associated with short-term project construction noise and vibration for park upgrades to trails, facilities and road improvements along Garden Bar Road.
- Non-transportation noise analyzed in the 2010 HFRP Certified EIR was determined to result in less than significant impacts associated with operation and maintenance activities, recreational day use, reservation-based events, overnight camping and limited hunting.
- Long-term transportation related impacts, however, resulted in significant nighttime impacts along Garden Bar Road North unless mitigation was applied. Mitigation measure 10-1 “Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset,” discussed below, restricted park access to only daylight hours in order to mitigate potential nighttime impacts at nearby sensitive receptors.

### 10.1.2 2010 HFRP MITIGATION MEASURES ADOPTED BY THE COUNTY

- **Mitigation Measure 10-1:** Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset *(applies to Impact 10-3)*

The County shall restrict all long-term general public traffic to 6 a.m. to 30 minutes after sunset by ensuring that the Park gates are closed and locked outside of these times. With implementation of Mitigation Measure 10-1, traffic noise level increases on Garden Bar Road North would be reduced below a substantial amount (3 dBA or more), as shown in Table 10-1. This would reduce Impact 10-3 to a less-than-significant level.

**Table 10-1. 2010 - Comparison of Modeled Existing and Existing Plus Project Plus Mitigation Measure 10-1 Vehicular Traffic Noise Levels**

| Roadway Segment and Location | Average Daily Traffic | | CNEL (dBA) 50 Feet from Centerline of Near Travel Lane | | |
|---|---|---|---|---|---|
| | Existing | Existing plus Project | Existing | Existing plus Project plus Mitigation Measure 10-1 | Net Change |
| **Weekday** | | | | | |
| Garden Bar Road[1], north of Mt. Pleasant Road | 285 | 476 | 47.9 | 49.2 | 1.3 |
| Garden Bar Road, south of Mt. Pleasant Road | 885 | 969 | 54.8 | 55.2 | 0.2 |
| Mt. Pleasant Road, west of Garden Bar Road | 375 | 457 | 53.4 | 54.3 | 0.5 |
| Mt. Pleasant Road, east of Garden Bar Road | 910 | 1,000 | 57.2 | 57.7 | 0.2 |
| Mears Drive[1], north of Mt. Vernon Road | 377 | 441 | 49.1 | 49.8 | 0.4 |
| **Weekend** | | | | | |
| Garden Bar Road[1], north of Mt. Pleasant Road | 260 | 605 | 47.5 | 50.4 | 2.3 |
| Garden Bar Road, south of Mt. Pleasant Road | 715 | 867 | 53.9 | 54.8 | 0.5 |
| Mt. Pleasant Road, west of Garden Bar Road | 310 | 458 | 52.5 | 54.3 | 1.0 |
| Mt. Pleasant Road, east of Garden Bar Road | 710 | 872 | 56.1 | 57.1 | 0.5 |
| Mears Drive[1], north of Mt. Vernon Road | 314 | 429 | 48.3 | 49.7 | 0.8 |

Notes:

CNEL = community noise equivalent level; dBA = A-weighted decibels. Traffic noise levels were modeled using the Federal Highway Administration traffic noise model (FHWA 1978) based on traffic volumes obtained from the traffic report prepared for this project (Chapter 8.0, "Transportation and Circulation"). Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features, nor do they consider noise contribution from other sources. See modeling results in Appendix E further detail.

[1] Assumes that 75% of project-generated traffic would access the project site via North Garden Bar Rd and that 25% of project-generated traffic would access the project site via Mears Drive.

Source: Modeling performed by EDAW in 2008.

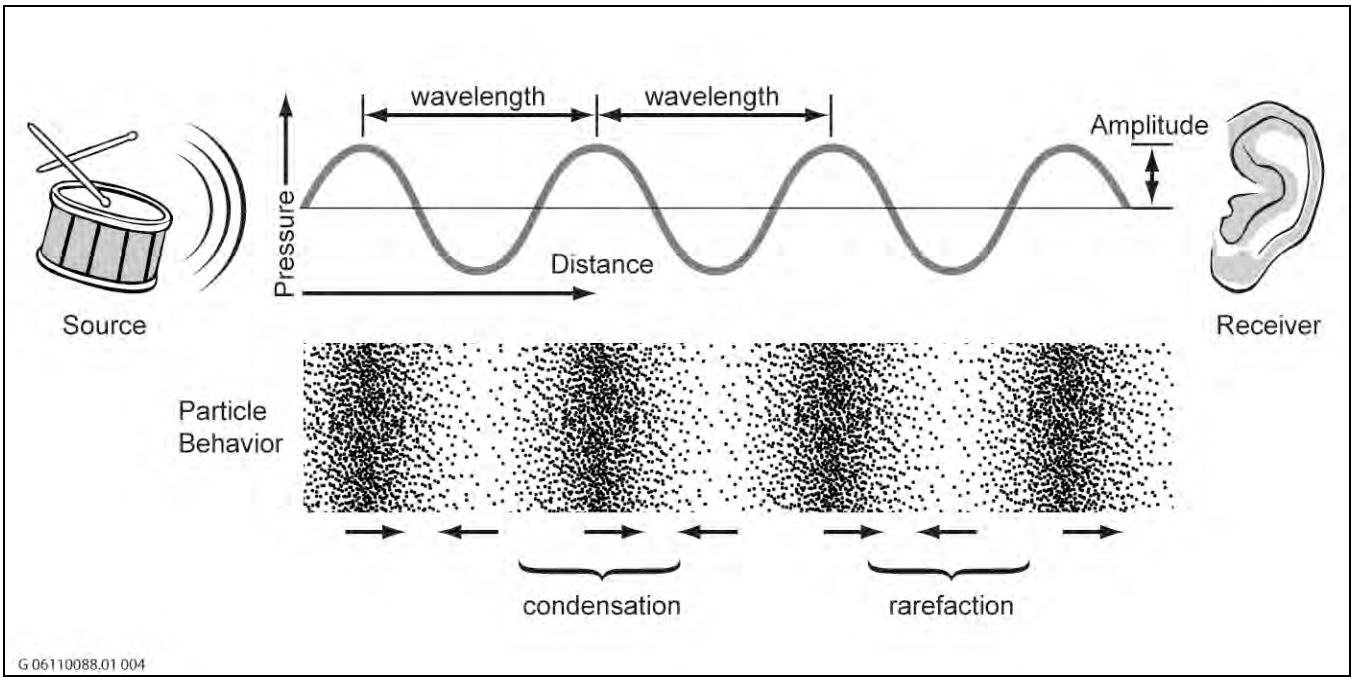
## 10.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

### 10.2.1 SOUND FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave by a disturbance or vibration that causes pressure variation in air that the human ear can detect.

#### Sound Properties

A sound wave is introduced into a medium (air) by a vibrating object. The vibrating object (e.g., vocal cords, the string of a guitar or the diaphragm of a radio speaker) is the source of the disturbance that moves through the medium (Exhibit 10-1). Regardless of the type of source creating the sound wave, the particles of the medium through which the sound moves are vibrating in a back-and-forth motion at a given rate (frequency). The frequency of a wave refers to how often the particles vibrate when a wave passes through the medium. The frequency of a wave is measured as the number of complete back-and-forth vibrations of a particle per unit of time. One complete back-and-forth vibration is called a cycle. If a particle of air undergoes 1,000 cycles in 2 seconds, then the frequency of the wave would be 500 cycles per second. The common unit used for frequency is in cycles per second, called Hertz (Hz).




Source: Data provided by AECOM in 2019

**Exhibit 10-1. Sound Wave Properties**

Each particle vibrates as a result of the motion of its nearest neighbor. For example, the first particle of the medium begins vibrating at 500 Hz and sets the second particle of the medium into motion at the same frequency (500 Hz). The second particle begins vibrating at 500 Hz and thus sets the third particle into motion at 500 Hz. The process continues throughout the medium; hence each particle vibrates at the same frequency, which is the frequency of the original source. Subsequently, a guitar string vibrating at 500 Hz will set the air particles in the room vibrating at the same frequency (500 Hz), which carries a sound signal to the ear of a listener that is detected as a 500-Hz sound wave.

The back-and-forth vibration motion of the particles of the medium would not be the only observable phenomenon occurring at a given frequency. Because a sound wave is a pressure wave, a detector could be used to detect oscillations in pressure from high to low and back to high pressure. As the compression (high-pressure) and rarefaction (low-pressure) disturbances move through the medium, they would reach the detector at a given frequency. For example, a compression would reach the detector 500 times per second if the frequency of the wave were 500 Hz. Similarly, a rarefaction would reach the detector 500 times per second if the frequency of the wave were 500 Hz. Thus, the frequency of a sound wave refers not only to the number of back-and-forth vibrations of the particles per unit of time, but also to the number of compression or rarefaction disturbances that pass a given point per unit of time. A detector could be used to detect the frequency of these pressure oscillations over a given period of time. The period of the sound wave can be found by measuring the time between successive high-pressure points (corresponding to the compressions) or the time between successive low-pressure points (corresponding to the rarefactions). The frequency is simply the reciprocal of the period; thus an inverse relationship exists so that as frequency increases, the period decreases, and vice versa.

A wave is a phenomenon that transports energy along a medium. The amount of energy carried by a wave is related to the amplitude (loudness) of the wave. A high-energy wave is characterized by large amplitude; a low-energy wave is characterized by small amplitude. The amplitude of a wave refers to the maximum amount of

displacement of a particle from its rest position. The energy transported by a wave is directly proportional to the square of the amplitude of the wave. This means that a doubling of the amplitude of a wave indicates a quadrupling of the energy transported by the wave.

### Sound and the Human Ear

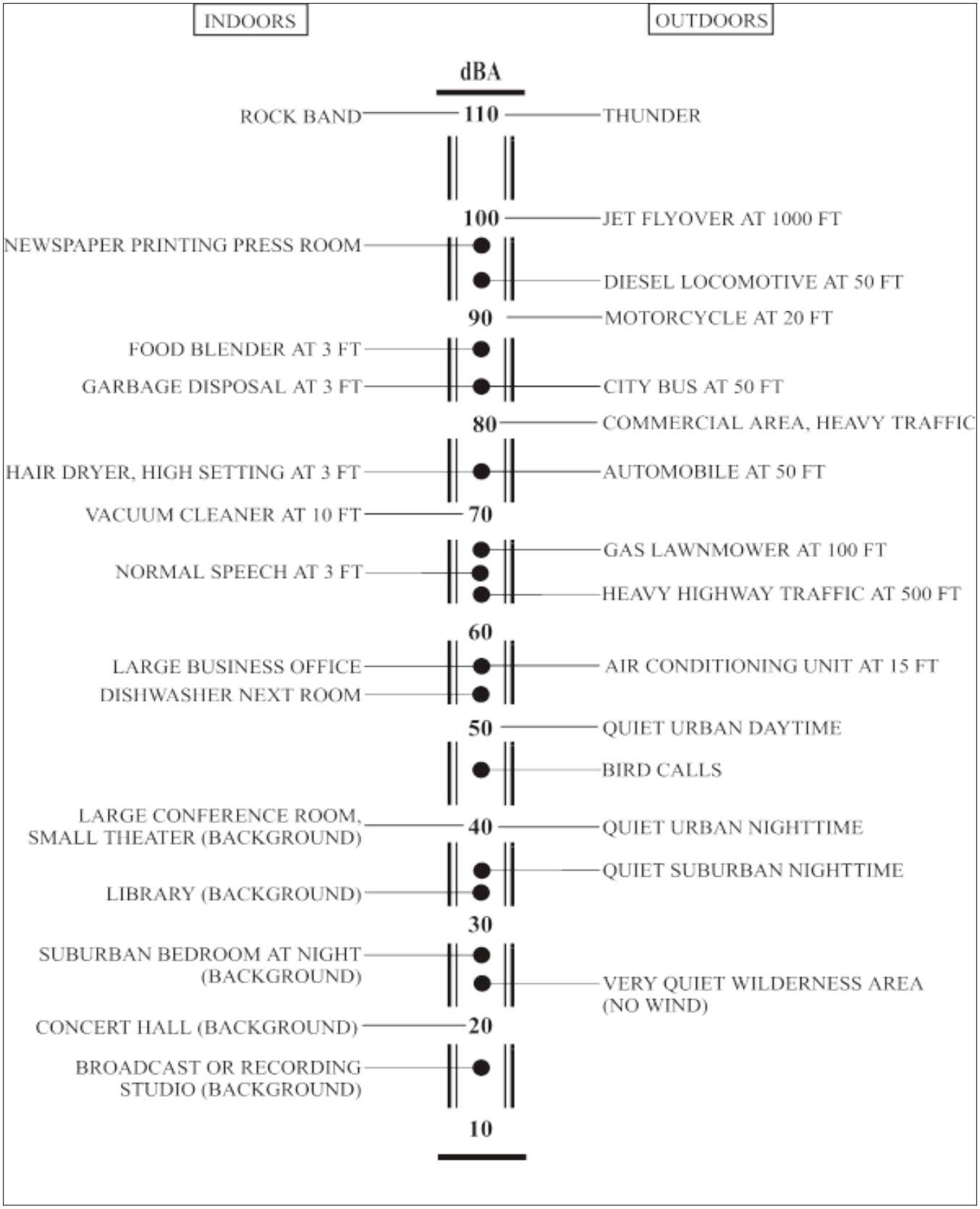
Because of the ability of the human ear to detect a wide range of sound-pressure fluctuations, sound-pressure levels are expressed in logarithmic units called decibels (dB) to avoid a very large and awkward range in numbers. The sound-pressure level in decibels is calculated by taking the log of the ratio between the actual sound pressure and the reference sound pressure and then multiplying by 20. The reference sound pressure is considered the absolute hearing threshold (Caltrans 2013a). Use of this logarithmic scale reveals that the total sound from two individual 65-dB sources is 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB).

Because the human ear is not equally sensitive to all audible frequencies, a frequency-dependent rating scale was devised to relate noise to human sensitivity. An A-weighted dB (dBA) scale performs this compensation by discriminating against frequencies that are more sensitive to humans. The basis for compensation is the faintest sound audible to the average ear at the frequency of maximum sensitivity. This dBA scale has been chosen by most authorities for regulating environmental noise. Exhibit 10-2 presents typical indoor and outdoor noise levels.

With respect to how humans perceive and react to changes in noise levels, under controlled conditions in a laboratory setting a human is able to discern 1 dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency range (1,000 Hz-8,000 Hz). In typical noisy environments, changes in noise level of 1-2 dB are generally not perceptible. However, people are able to begin to detect sound level changes of 3 dB in typical environments. A 5-dB change is readily noticeable, and a 10-dB change is generally perceived as a doubling or halving of loudness (Caltrans 2013a).

| Noise Level Increase, dB | Human Perception (typical) |
|---|---|
| **0** | Reference (no change) |
| **1 to 2** | not perceptible |
| **+ 3** | barely perceptible increase |
| **+ 5** | readily perceptible increase |
| **+ 10** | Two times as loud |
| **+ 20** | Four times as loud |
| **+ 30** | Eight times as loud |
| **+ 40** | 16 times as loud |

Source: Caltrans 2013a




Source: Caltrans, 2013a

**Exhibit 10-2. Typical Noise Levels**

## Sound Propagation and Attenuation

As sound (noise) propagates from the source to the receptor, the attenuation, or manner of noise reduction in relation to distance, depends on surface characteristics, atmospheric conditions, and the presence of physical barriers. The inverse-square law describes the attenuation caused by the pattern in which sound travels from the source to receptor. Sound travels uniformly outward from a point source in a spherical pattern with an attenuation rate of 6 dBA per doubling of distance (dBA/DD). However, from a line source (e.g., a road), sound travels uniformly outward in a cylindrical pattern with an attenuation rate of 3 dBA/DD. The surface characteristics between the source and the receptor may result in additional sound absorption and/or reflection. Soft surfaces such as dirt cover or vegetation can provide an additional 1.5 dBA/DD. Hard surfaces such as parking lots, water, and other roadway surfaces would provide additional attenuation. Atmospheric conditions such as wind speed, temperature, and humidity also affect noise attenuation. Furthermore, the presence of a barrier between the source and the receptor may also attenuate noise levels. The actual amount of attenuation depends on the size of the barrier and the frequency of the noise. A noise barrier may consist of any natural or human-made feature such as a hill, grove of trees, building, wall, or berm (Caltrans 2013a).

All buildings provide some exterior-to-interior noise reduction. A building constructed with a wood frame and a stucco or wood sheathing exterior typically provides a minimum exterior-to-interior noise reduction of 25 dBA with its windows closed; by contrast, a building constructed of a steel or concrete frame, a curtain wall or masonry exterior wall, and fixed plate-glass windows one-quarter inch thick typically provides an exterior-to-interior noise reduction of 30–40 dBA with its windows closed (Caltrans 2013a).

## Noise Descriptors

The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and amplitudinal fluctuation of the noise. The noise descriptors most often used when dealing with traffic, community, and environmental noise are defined below (Caltrans 2013a):

- $L_{max}$ *(maximum noise level):* The maximum instantaneous noise level during a specific period of time. The $L_{max}$ may also be referred to as the "peak (noise) level."
- $L_{min}$ *(minimum noise level):* The minimum instantaneous noise level during a specific period of time.
- $L_X$ *(statistical descriptor):* The noise level exceeded X% of a specific period of time.
- $L_{eq}$ *(equivalent noise level):* The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the $L_{eq}$. In noise environments determined by major noise events, such as aircraft overflights, the $L_{eq}$ value is heavily influenced by the magnitude and number of single events that produce the high noise levels.
- $L_{dn}$ *(day-night noise level):* The 24-hour $L_{eq}$ with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m. In other words, 10 dBA is "added" to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The $L_{dn}$ attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.

- *CNEL (community noise equivalent level):* A noise level similar to the $L_{dn}$ described above, but with an additional 5-dBA "penalty" added to noise events that occur during the noise-sensitive hours between 7 p.m. and 10 p.m., which are typically reserved for relaxation, conversation, reading, and television. If the same 24-hour noise data are used, the reported CNEL is typically approximately 0.5 dBA higher than the $L_{dn}$.

- *SENL (single-event [impulsive] noise level):* A receiver's cumulative noise exposure level from a single impulsive noise event, which is an acoustical event of short duration that involves a change in sound pressure above some reference value. SENLs typically represent the noise events used to calculate the $L_{eq}$, $L_{dn}$, and CNEL.

Community noise is commonly described in terms of the ambient noise level, the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average (equivalent) sound level, $L_{eq}$, which corresponds to a steady-state sound level that contains the same total energy as a time-varying signal over a given time period (usually 1 hour). The $L_{eq}$ is the foundation of the composite noise descriptors such as $L_{dn}$ and CNEL, as defined above, and shows a positive correlation with community response to noise.

### Negative Effects of Noise on Humans

Negative effects of noise exposure include physical damage to the human auditory system, interference, and disease. Physical damage to the auditory system can lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over an extended period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a brief period. Both gradual and traumatic hearing loss may result in permanent hearing damage. In addition, noise may interfere with or interrupt sleep, relaxation, recreation, and communication. Although most interference may be classified as annoying, the inability to hear a warning signal is considered dangerous. Noise may also contribute to diseases associated with stress, such as hypertension, anxiety, and heart disease. The degree to which noise contributes to such diseases depends on the frequency, bandwidth, noise level, and duration of exposure (Caltrans 2013a).

### Vibration

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structureborne noise. Both natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment) can result in groundborne vibration. Some vibration sources, such as factory machinery, are continuous; others, such as explosions, are transient. As is the case with airborne sound, groundborne vibration may be described by amplitude and frequency.

Vibration amplitude is typically expressed in peak particle velocity (PPV) or root mean square (RMS), as in RMS vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is the metric often used to describe blasting vibration and other vibration sources that result in structural stresses in buildings (FTA 2018).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the

human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of 1 second. As with airborne sound, the RMS velocity is often expressed in decibel notation as velocity decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018). This velocity decibel scale is based on a reference value of 1 microinch per second (µin/sec).

The background vibration-velocity level typical of residential areas is approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018).

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration is rarely perceptible. The range of human perception of vibration is from approximately 50 VdB, the typical background vibration-velocity level, to 100 VdB, the general threshold where minor damage can occur in fragile buildings. Construction activities can generate groundborne vibrations, which can pose a risk to nearby structures. Constant or transient vibration can weaken structures, crack facades, and disturb occupants (FTA 2018).

Construction-generated vibration can be transient, random, or continuous. Transient construction vibration is generated by blasting, impact pile driving, and wrecking balls. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Continuous vibration results from vibratory pile drivers, large pumps, horizontal directional drilling, and compressors. Table 10-2 summarizes the general human response to different levels of groundborne vibration.

**Table 10-2. Human Response to Different Levels of Groundborne Vibration**

| Vibration-Velocity Level | Human Reaction |
|---|---|
| 65 VdB | Approximate threshold of perception. |
| 75 VdB | Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable. |
| 85 VdB | Vibration acceptable only if there is an infrequent number of events per day. |

Note: VdB = velocity decibels referenced to 1 µinch/sec and based on the root mean square vibration velocity.
Source: FTA 2018

## 10.2.2 2019 HFRP Trails Expansion Project – Existing Noise Environment

### Existing Sensitive Land Uses

Land uses that are sensitive to noise and vibration are those uses where exposure would result in adverse effects (i.e., annoyance and/or structural damage) and uses where quiet is an essential element of their intended purpose. Residences are of primary concern because of the potential for increased, prolonged exposure of individuals to both interior and exterior noise or vibration. Other noise-sensitive land uses are hospitals, schools, convalescent facilities, hotels, churches, libraries, and other uses where low interior noise levels are essential.

Noise-sensitive land uses located near the proposed trail expansion areas in the northeast include rural homes to the south and north of Curtola Ranch Road and the proposed parking area in the Harvego Bear River Preserve, rural homes adjacent to the Twilight Ride property, rural homes to the south and east of Mears Place parking area and rural homes in the vicinity of the Garden Bar parking area. The closest of these residences is approximately 40 feet north of the proposed access road to the parking lot proposed for the Twilight Ride parcel. The proposed trail expansion parking area located off of Garden Bar Road is completely shielded by existing terrain with no direct line of site to existing noise sensitive receptors.

The existing HFRP as well as the proposed expansion areas are located in an unincorporated area of Placer County. The areas have been used for cattle grazing in the recent past, and portions of the proposed expansion areas continue to be used for this purpose. Adjacent land uses include rural residential homes and agricultural activities, mostly cattle grazing and raising other livestock contribute to the ambient conditions. The local noise environment includes rural sounds associated with agricultural activities, birds, aircraft flyovers, plants rustling, and minor vehicle traffic. Natural sounds from meteorological effects (e.g., wind rustling plants, running water) and wildlife as well as road noise from passing vehicles are the predominant ambient noise source.

## 2019 Noise Survey

To quantify the existing noise environment in the project vicinity, one long-term 24 hour and two short-term noise measurements were conducted on Wednesday, May 22, 2019, using a Larson-Davis Model 824 and 820 sound meters. The sound meters were calibrated immediately before each measurement, and measurements were conducted in accordance with the acoustical standards of the American National Standards Institute. As presented in Table 10-3, noise levels in the expansion project vicinity range from 40.0 dBA $L_{eq}$ to 51.5 dBA $L_{eq}$, with $L_{max}$ ranges from 53.5 dBA to 74.4 dBA. Noise sources noted during the measurements included buzzing insects, singing birds, wind, and distant traffic noise attributable to local roadways, specificially, Bell Road and Garden Bar Road. Noise associated with agricultural uses—tractors, yelling voices, cows, and horses—was also reflected in the measurements. Exhibit 10-3 shows the measurement locations.

**Table 10-3. Existing 2019 EIR - Ambient Noise Levels**

| Measurement Number[1] | Location | Monitoring Period | Sound Level (dBA)[2] | | |
|---|---|---|---|---|---|
| | | | $L_{dn}$[3] | $L_{eq}$[4] | $L_{max}$[5] |
| LT-01 | By Residence at 6525 Curtola Ranch Rd | 24 hours | 50.2 | 48.5 | 73.1 |
| ST-01 | Front Yard, 5345 Bell Road, just south of 5355 Bell Road | 15 minutes | -- | 40.0 | 53.5 |
| ST-02 | Garden Bar Road, West of Coon Creek | 15 minutes | -- | 51.5 | 74.3 |

[1] Measurement locations are shown in Exhibit 10-3.

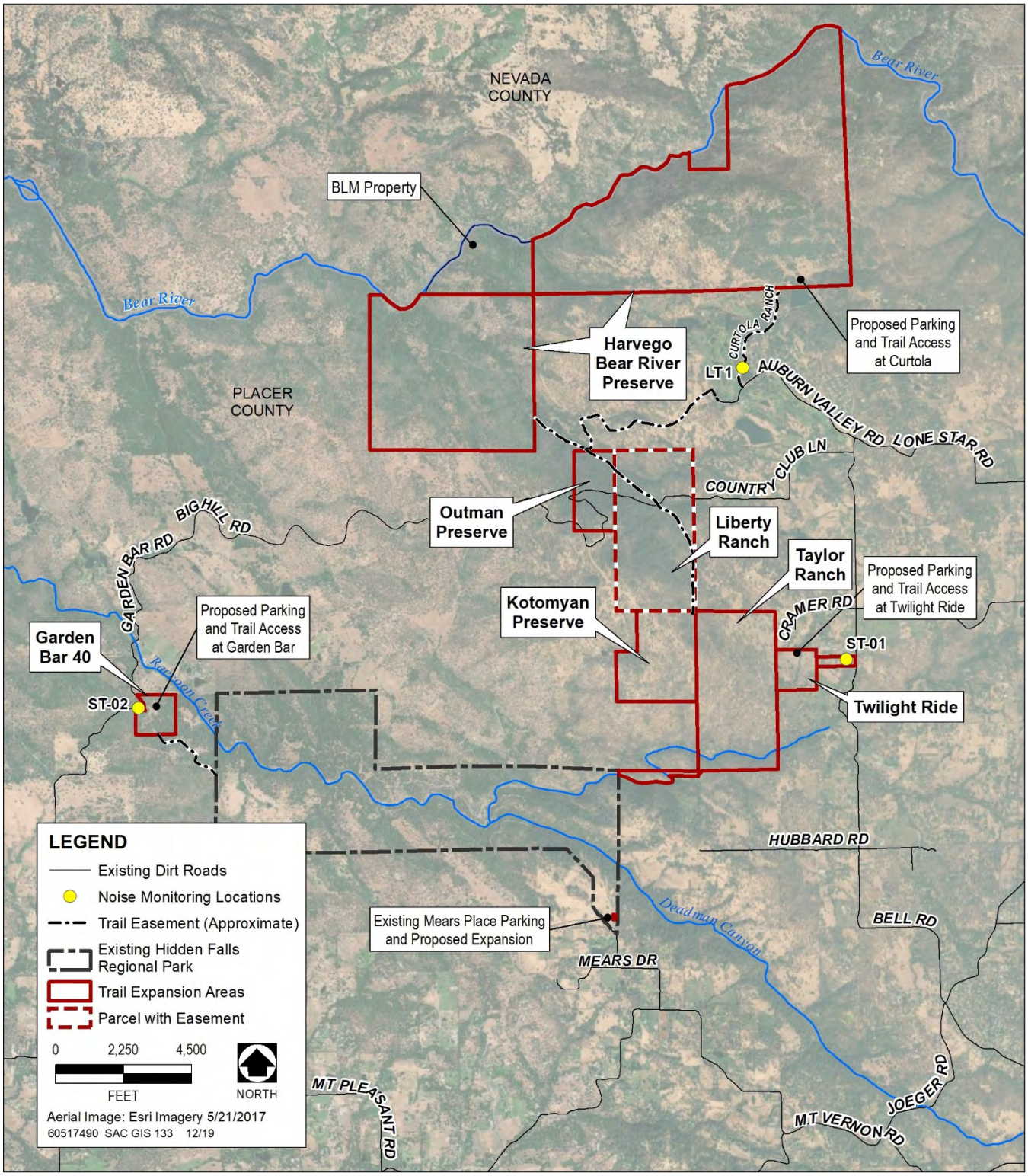
[2] dBA (A-weighted decibels): The weighted sound level measurement scale specifically adjusted to human hearing.

[3] $L_{dn}$ (day night noise level): The 24-hour $L_{eq}$ with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m.

[4] $L_{eq}$ (equivalent noise level): The energy mean (average) noise level.

[5] $L_{max}$ (maximum noise level): The maximum instantaneous noise level during a specific period of time.

Source: Measurements collected by AECOM on Wednesday, May 22, 2019




Source: AECOM 2018

**Exhibit 10-3. Ambient Noise Measurement Locations**

## TRAFFIC NOISE LEVELS

Traffic noise levels in the 2010 Certified EIR were estimated using the Federal Highway Administration's (FHWA's) traffic noise prediction model (FHWA-RD-77-108) and traffic data obtained from the traffic analysis prepared for that project (Chapter 8.0, "Transportation and Circulation"). Table 10-4 below presents a summary of the modeled vehicular traffic noise levels serving the existing HFRP in 2007. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. Actual noise levels vary from day to day, depending on local traffic volumes, shielding from existing structures, variations in attenuation rates attributable to changes in surface parameters, and meteorological conditions.

**Table 10-4. Summary of Modeled Vehicular Traffic Noise Levels Serving the Existing HFRP**

| Roadway Segment and Location | Distance (feet) from Roadway Centerline to CNEL | | | | CNEL (dBA) 50 Feet from Centerline of Near Travel Lane |
|---|---|---|---|---|---|
| | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | 55 dBA CNEL | |
| **Weekday** | | | | | |
| Garden Bar Road, north of Mt. Pleasant Road | 2 | 4 | 8 | 17 | 47.9 |
| Garden Bar Road, south of Mt. Pleasant Road | 5 | 10 | 23 | 49 | 54.8 |
| Mt. Pleasant Road, west of Garden Bar Road | 4 | 8 | 18 | 39 | 53.4 |
| Mt. Pleasant Road, east of Garden Bar Road | 7 | 15 | 33 | 70 | 57.2 |
| Mears Drive, north of Mt. Vernon Road | 2 | 4 | 9 | 20 | 49.1 |
| **Weekend** | | | | | |
| Garden Bar Road, north of Mt. Pleasant Road | 2 | 3 | 7 | 16 | 47.5 |
| Garden Bar Road, south of Mt. Pleasant Road | 4 | 9 | 20 | 42 | 53.9 |
| Mt. Pleasant Road, west of Garden Bar Road | 3 | 7 | 16 | 34 | 52.6 |
| Mt. Pleasant Road, east of Garden Bar Road | 6 | 13 | 28 | 60 | 56.2 |
| Mears Drive, north of Mt. Vernon Road | 2 | 4 | 8 | 18 | 48.3 |

Notes:
CNEL = community noise equivalent level; dBA = A-weighted decibels. Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features; or noise contribution from other sources. See modeling results in Appendix E for further detail.
Source: Modeling performed by EDAW in 2007

Since traffic volumes along studied roadway segments have not changed substantially from those modeled above, predicted noise levels in 2019 remain similar to those depicted in Table 10-4. Ambient conditions along studied roadway segments serving the new trailhead entrys at the HFRP Trail Expansion are provided in Table 10-5.

**Table 10-5. Summary of Modeled Vehicular Traffic Noise Levels Serving the Proposed HFRP Trail Expansion Areas**

| Roadway Segment and Location | Distance (feet) from Roadway Centerline to CNEL | | | | CNEL (dBA) 50 Feet from Centerline of Near Travel Lane |
|---|---|---|---|---|---|
| | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | 55 dBA CNEL | |
| **Weekday** | | | | | |
| Bell Road from Lone Star Road to Cramer Road | 5 | 10 | 21 | 45 | 54.4 |
| Bell Road from Joeger Road to Cramer Road | 8 | 17 | 36 | 79 | 57.9 |
| Cramer Road from Bell Road to SR 49 | 3 | 7 | 16 | 34 | 52.5 |
| Lone Star Road from Bell Road to SR 49 | 6 | 13 | 28 | 61 | 56.3 |
| Auburn Valley Road from Fairway Court to Curtola Ranch Road | 2 | 4 | 8 | 18 | 48.2 |
| **Weekend** | | | | | |
| Bell Road from Lone Star Road to Cramer Road | 4 | 9 | 19 | 42 | 53.8 |
| Bell Road from Joeger Road to Cramer Road | 8 | 16 | 35 | 76 | 57.7 |
| Cramer Road from Bell Road to SR 49 | 3 | 7 | 16 | 34 | 52.4 |
| Lone Star Road from Bell Road to SR 49 | 6 | 12 | 27 | 57 | 55.9 |
| Auburn Valley Road from Fairway Court to Curtola Ranch Road | 2 | 5 | 10 | 22 | 49.6 |

Notes:

CNEL = community noise equivalent level; dBA = A-weighted decibels. Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features; or noise contribution from other sources. See modeling results in Appendix E for further detail.

Source: Modeling performed by AECOM in 2019

## 10.3 REGULATORY SETTING UPDATE

### 10.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to noise are applicable to either the original or trails expansion projects. However, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses to address the human response to groundborne vibration (FTA 2018):

- 65 VdB (referenced to 1 μin/sec and based on the RMS velocity amplitude) for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities);
- 80 VdB for residential uses and buildings where people normally sleep; and
- 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices).

Standards have also been established to address the potential for groundborne vibration to cause structural damage to buildings. FTA recommends a maximum limit of 0.12 in/sec PPV buildings extremely susceptible to vibration, 0.2 in/sec PPV for non-engineered timber and masonry buildings, 0.3 in/sec PPV for engineered concrete and masonry (no plaster), and 0.5 in/sec PPV for reinforced-concrete, steel or timber (no plaster) (FTA 2018).

## 10.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

The following State Plans, Policies, Regulations, and laws are applicable to the 2010 HFRP and the 2019 EIR proposed trail expansion project. The *State of California General Plan Guidelines*, published by the Governor's Office of Planning and Research (OPR 2017), provides guidance for the acceptability of projects within specific CNEL/$L_{dn}$ contours. Table 10-6 presents acceptable and unacceptable community-noise-exposure limits for various land-use categories. Generally, residential uses are considered to be acceptable in areas where exterior noise levels do not exceed 60 dBA CNEL/$L_{dn}$. Residential uses are normally unacceptable in areas exceeding 70 dBA CNEL/$L_{dn}$ and conditionally acceptable within 55–70 dBA CNEL/$L_{dn}$. Schools are normally acceptable in areas up to 70 dBA CNEL/$L_{dn}$ and normally unacceptable in areas exceeding 70 dBA CNEL/$L_{dn}$. Recreation uses are normally acceptable in areas up to 75 dBA CNEL/$L_{dn}$. The guidelines also present adjustment factors that may be used to arrive at noise-acceptability standards that reflect the noise-control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise issues.

**Table 10-6. State Noise Compatibility Guidelines, by Land Use Category**

| Land Use Category | Community Noise Exposure (CNEL/$L_{dn}$, dBA) | | | |
|---|---|---|---|---|
| | Normally Acceptable[1] | Conditionally Acceptable[2] | Normally Unacceptable[3] | Clearly Unacceptable[4] |
| Residential—Low-Density Single-Family, Duplex, Mobile Home | <60 | 55–70 | 70–75 | 75+ |
| Residential—Multiple-Family | <65 | 60–70 | 70–75 | 75+ |
| Transient Lodging, Motel, Hotel | <65 | 60–70 | 70–80 | 80+ |
| School, Library, Church, Hospital, Nursing Home | <70 | 60–70 | 70–80 | 80+ |
| Auditorium, Concert Hall, Amphitheater | | <70 | 65+ | |
| Sports Arenas, Outdoor Spectator Sports | | <75 | 70+ | |
| Playground, Neighborhood Park | <70 | | 67.5–75 | 72.5+ |
| Golf Courses, Stable, Water Recreation, Cemetery | <75 | | 70–80 | 80+ |
| Office Building, Business Commercial and Professional | <70 | 67.5–77.5 | 75+ | |
| Industrial, Manufacturing, Utilities, Agriculture | <75 | 70-80 | 75+ | |

Notes:

CNEL = community noise equivalent level; dBA = A-weighted decibels; $L_{dn}$ = day-night noise level (the 24-hour energy mean [average] noise level with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m.)

[1] Specified and use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

[2] New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

[3] New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

[4] New construction or development should generally not be undertaken.

Source: Governor's Office of Planning and Research 2017

With respect to vibration, the California Department of Transportation (Caltrans) recommends a more conservative threshold of 0.2 in/sec PPV for normal residential buildings and 0.08 in/sec PPV for old or historically significant structures (Caltrans 2013b) to protect fragile, historic, and residential structures. These

standards are more stringent than the federal guidance established by the Committee of Hearing, Bio Acoustics, and Bio Mechanics, presented above.

## 10.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GENERAL PLAN

The following are the relevant policies identified by the *Placer County General Plan* (Placer County 2013) for noise.

- **Policy 9.A.2.** Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 9-1 [Table 10-7 in this document] as measured immediately within the property line of lands designated for noise-sensitive uses: provided, however, the noise created by occasional events occurring within a stadium on land zoned for university purposes may temporarily exceed these standards as provided in an approved Specific Plan.

- **Policy 9.A.5.** Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 9-1 [Table 10-7 in this document] at existing or planned noise-sensitive uses, the County shall require submission of an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. The requirements for the content of an acoustical analysis are listed in Table 9-2 of the Placer County General Plan.

- **Policy 9.A.6.** The feasibility of proposed projects with respect to existing and future transportation noise levels shall be evaluated by comparison to Table 9-3 [Table 10-8 in this document].

- **Policy 9.A.9.** Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 9-3 [Table 10-8 in this document] or the performance standards in Table 9-3 at outdoor activity areas or interior spaces of existing noise sensitive land uses.

- **Policy 9.A.12.** Where noise mitigation measures are required to achieve the standards of Tables 9-1 and 9-3 [Tables 10-7 and 10-8 of this document, respectively], the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

### Construction Noise

The Placer County Planning Commission passed the following resolution (Minute Order 90-08) regarding construction noise associated with land development projects, and the conditions of this resolution shall be applied to address construction noise impacts:

- The Planning Commission and Zoning Administrator are hereby directed to consider placement of the following conditions on an individual project basis to control construction noise in areas where existing residences may be adversely impacted.

**Table 10-7. Allowable $L_{dn}$ Noise Levels Within Specified Zone Districts[1] Applicable to New Projects Affected by or Including Nontransportation Noise Sources – From the Placer County General Plan, 2013, Table 9-1**

| Zone District of Receptor | Property Line of Receiving Use | Interior Spaces (dBA)[2] |
|---|---|---|
| Residential Adjacent to Industrial[3] | 60 | 45 |
| Other Residential[4] | 50 | 45 |
| Office/Professional | 70 | 45 |
| Transient Lodging | 65 | 45 |
| Neighborhood Commercial | 70 | 45 |
| General Commercial | 70 | 45 |
| Heavy Commercial | 75 | 45 |
| Limited Industrial | 75 | 45 |
| Highway Service | 75 | 45 |
| Shopping Center | 70 | 45 |
| Industrial | --- | 45 |
| Industrial Park | 75 | 45 |
| Industrial Reserve | --- | --- |
| Airport | --- | 45 |
| Unclassified | --- | --- |
| Farm | (see footnote 6) | --- |
| Agriculture Exclusive | (see footnote 6) | --- |
| Forestry | --- | --- |
| Timberland Preserve | --- | --- |
| Recreation & Forestry | 70 | --- |
| Open Space | --- | --- |
| Mineral Reserve | --- | --- |

Notes:

- Except where noted otherwise, noise exposures will be those which occur at the property line of thereceiving use.
- Where existing transportation noise levels exceed the standards of this table, the allowable Ldn shall be raised to the same level as that of the ambient level.
- If the noise source generated by, or affecting, the uses shown above consists primarily of speech or music, of if the noise source is impulsive in nature, the noise standards shown above shall be decreased by 5 dB.
- Where a use permit has established noise level standards for an existing use, those standards shall supersede the levels specified in Table 9-1 and Table 9-3. Similarly, where an existing use which is not subject to a use permit causes noise in excess of the allowable levels in Tables 9-1 and 9-3, said excess noise shall be considered the allowable level. If a new development is proposed which will be affected by noise from such an existing use, it will ordinarily be assumed that the noise levels already existing or those levels allowed by the existing use permit, whichever are greater, are those levels actually produced by the existing use.
- Existing industry located in industrial zones will be given the benefit of the doubt in being allowed to emit increased noise consistent with the state of the art[5] at the time of expansion. In no case will expansion of an existing industrial operation because to decrease allowable noise emission limits. Increased emissions above those normally allowable should be limited to a one-time 5 dB increase at the discretion of the decision making body.
- The noise level standards applicable to land uses containing incidental residential uses, such as caretaker dwellings at industrial facilities and homes on agriculturally zoned land, shall be the standards applicable to the zone district, not those applicable to residential uses.
- Where no noise level standards have been provided for a specific zone district, it is assumed that the interior and/or exterior spaces of these uses are effectively insensitive to noise.

[1] Overriding policy on interpretation of allowable noise levels: Industrial-zoned properties are confined to unique areas of the County, and are irreplaceable. Industries which provide primary wage-earner jobs in the County, if forced to relocate, will likely be forced to leave the County. For this reason, industries operating upon industrial zoned properties must be afforded reasonable opportunity to exercise the rights/privileges conferred upon them be their zoning. Whenever the allowable noise levels herein fall subject to interpretation relative to industrial activities, the benefit of the doubt shall be afforded to the industrial use.

Where an industrial use is subject to infrequent and unplanned upset or breakdown of operations resulting in increased noise emissions, where such upsets and breakdowns are reasonable considering the type of industry, and where the industrial use exercises due diligence in preventing as well as correcting such upsets and breakdowns, noise generated during such upsets and breakdowns shall not be included in calculations to determine conformance with allowable noise levels.

[2] Interior spaces are defined as any locations where some degree of noise-sensitivity exists. Examples include all habitable rooms of residences, and areas where communication and speech intelligibility are essential, such as classrooms and offices.

[3] Noise from industrial operations may be difficult to mitigate in a cost-effective manner. In recognition of this fact, the exterior noise standards for residential zone districts immediately adjacent to industrial, limited industrial, industrial park, and industrial reserve zone districts have been increased by 10 dB as compared to residential districts adjacent to other land uses. For purposes of the Noise Element, residential zone districts are defined to include the following zoning classifications: AR, R-1, R-2, R-3, FR, RP, TR-1, TR-2, TR-3, and TR-4.

[4] Where a residential zone district is located within an -SP combining district, the exterior noise level standards are applied at the outer boundary of the -SP district. If an existing industrial operation within an - SP district is expanded or modified, the noise level standards at the outer boundary of the -SP district may be increased as described above in these standards.

Where a new residential use is proposed in an -SP zone, an Administrative Review Permit is required, which may require mitigation measures at the residence for noise levels existing and/or allowed by use permit as described under “NOTES,” above, in these standards.

[5] State of the art should include the use of modern equipment with lower noise emissions, site design, and plant orientation to mitigate offsite noise impacts, and similar methodology.

[6] Normally, agricultural uses are noise insensitive and will be treated in this way. However, conflicts with agricultural noise emissions can occur where single-family residences exist within agricultural zone districts. Therefore, where effects of agricultural noise upon residences located in these agricultural zones is a concern, an $L_{dn}$ of 70 dBA will be considered acceptable outdoor exposure at a residence.

Source: Placer County 2013

**Table 10-8. Maximum Allowable Noise Exposure Transportation Noise Sources (From the Placer County General Plan, 2013, Table 9-3)**

| Land Use | Outdoor Activity Areas[1] | Interior Spaces (dBA) | |
|---|---|---|---|
| | CNEL/$L_{dn}$ (dBA) | CNEL/$L_{dn}$ | $L_{eq}$[2] |
| Residential | 60[3] | 45 | – |
| Transient Lodging | 60[3] | 45 | – |
| Hospitals, Nursing Homes | 60[3] | 45 | – |
| Theaters, Auditoriums, Music Halls | – | – | 35 |
| Churches, Meeting Halls | 60[3] | – | 40 |
| Office Buildings | – | – | 45 |
| Schools, Libraries, Museums | – | – | 45 |
| Playgrounds, Neighborhood Parks | 70 | – | – |

Notes:

CNEL = community noise equivalent level; dBA = A-weighted decibels; $L_{dn}$ = day-night noise level (the $L_{eq}$ with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m.); $L_{eq}$ = equivalent noise level (the 24-hour energy mean [average] noise level)

[1] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB CNEL/$L_{dn}$ or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB CNEL/$L_{dn}$ may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Placer County 2013

1. All construction vehicles or equipment, fixed or mobile, operated in close proximity of a residential dwelling shall be equipped with properly operating and maintained mufflers; and/or

2. Stockpiling and/or vehicle staging areas shall be identified by the applicant on the improvement plans and shall be located as far as is practical from existing dwellings in the area; and/or

3. Construction noise emanating from any commercial or residential construction activities for which a building permit is required shall be prohibited on Sundays or federal holidays, and shall only occur:

   a. Monday through Friday, 6:00 a.m. to 8:00 p.m.; and
   b. Saturdays, 8:00 a.m. to 8:00 p.m.

   Work occurring in an enclosed building, such as a house under construction with the roof and siding on, can occur at other times as well.

## PLACER COUNTY NOISE ORDINANCE

The Placer County Noise Ordinance (Article 9.36 of the Placer County Code), which was adopted in March 2004, defines sound-level performance standards for sensitive receptors. The ordinance forbids any person to create (or allow the creation of) sound on property he or she owns, leases, occupies, or otherwise controls that causes the

exterior sound level—measured at the property line of any affected sensitive receptor—to exceed the ambient sound level by 5 dBA or exceed the standards shown in Table 10-9 below, whichever is greater.

**Table 10-9. On-Site Sound Level Standards in the Placer County Noise Ordinance**

| Sound Level Descriptor (dBA) | Daytime (7 a.m. to 10 p.m.) | Nighttime (10 p.m. to 7 a.m.) |
|---|---|---|
| Hourly $L_{eq}$ | 55 | 45 |
| $L_{max}$ | 70 | 65 |

Notes: dBA = A-weighted decibels; $L_{eq}$ = equivalent noise level (the 24-hour energy mean [average] noise level); $L_{max}$ = maximum noise level (the maximum instantaneous noise level during a specific period of time)
Source: Placer County 2004

Each of the sound-level standards specified in Exhibit 10-2 shall be reduced by 5 dBA for simple tone noises, consisting of speech and music. However, in no case shall the sound-level standard be lower than the ambient sound level plus 5 dBA.

According to Section 9.36.030, "Exemptions," some noise-generating activities are exempt from the above noise ordinance standards. These activities include construction that is performed between 6 a.m. and 8 p.m., Monday through Friday, and between 8 a.m. and 8 p.m. Saturday and Sunday, provided that all construction equipment is fitted with factory-installed muffler devices and maintained in good working order.

## 10.4 IMPACTS

### 10.4.1 ANALYSIS METHODOLOGY

This analysis considers how the proposed Trails Expansion project will increase the number of park users and how this would or would not change the conclusions of the prior environmental review. The analysis considers the application of all adopted mitigation measures from the prior environmental review when making the impact determinations presented below in Section 10.4.3, "Impact Analysis."

Land use types and major noise sources in the vicinity of the project area were identified based on existing documentation (e.g., the *Placer County General Plan*) and site reconnaissance data. To assess potential short-term impacts from construction noise, noise-sensitive receptors and their relative exposure (considering topographic barriers and distance) were identified. Noise levels of specific construction equipment were determined and resultant noise levels at those receptors were calculated.

FHWA's traffic noise prediction model was used to model traffic noise levels along affected roadways, based on daily volumes and the distribution of traffic, from the traffic analyses prepared for the project (Kd Anderson & Associates 2008 and 2019). The contribution of the proposed project to the existing traffic noise levels along area roadways was determined by comparing the modeled noise levels at 50 feet from the centerline of the near travel lane under no-project and plus-project conditions.

Groundborne vibration impacts were qualitatively assessed based on existing documentation (e.g., vibration levels produced by specific construction equipment) and the distance of sensitive receptors from the given source.

Predicted noise levels were compared with applicable standards to determine significance. Mitigation measures were developed for significant noise impacts.

### 10.4.2 THRESHOLDS OF SIGNIFICANCE

Based on applicable Placer County noise regulations, the Placer County CEQA checklist, and the State CEQA Guidelines, the proposed project would result in a significant noise impact if it would:

- result in short-term noise levels from construction exceeding the applicable County noise standards (Table 10-7 and Table 10-8), or increase substantially (by greater than 3 dBA) ambient noise at nearby existing noise-sensitive receptors during the more sensitive early morning, evening, and nighttime hours of the day (i.e., outside the hours considered exempt by the Placer County Noise Ordinance [6 a.m.–8 p.m., Monday–Friday and 8 a.m.–8 p.m. Saturday]);
- result in short-term (construction) or long-term (operational) noise levels from traffic exceeding the applicable County noise standards for transportation noise sources (Table 10-8), or increase substantially (by greater than 3 dBA) ambient noise levels at nearby existing noise-sensitive receptors;
- result in long-term (operational) noise levels from nontransportation stationary or area sources exceeding applicable County noise standards (Table 10-7 and/or Table 10-9), or increase substantially (by greater than 3 dBA) ambient noise at nearby existing noise-sensitive receptors; or
- expose persons to or generate excessive groundborne vibration or noise levels exceeding Caltrans's recommended standards for preventing structural building damage (0.2 in/sec PPV and 0.08 in/sec PPV, respectively, for normal and historical buildings) or FTA's maximum-acceptable vibration standard with respect to human response (80 VdB for residential structures) at nearby existing or proposed vibration-sensitive land uses (e.g., residences).

### 10.4.3 IMPACT ANALYSIS

| | |
|---|---|
| IMPACT 10-1 | Noise—Short-Term Construction-Generated Noise Levels Exceeding County Standards. *Short-term exterior noise levels at the closest existing noise-sensitive receptor could exceed 70 dBA without feasible noise controls, which would exceed the applicable County nighttime standard of 45 dBA at existing nearby off-site sensitive land uses. However, construction would be limited to daytime hours.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP Certified EIR considered noise levels from construction activities such as site preparation (e.g., clearing, excavation, and grading), staging, trenching, paving, building construction, equipment installation, finishing, cleanup, and other miscellaneous activities. No pile driving or rock blasting would occur as part of project construction and this method of construction was not evaluated.

Noise levels from individual construction equipment was estimated to range from 78 dBA to 91 dBA at 50 feet. The 2010 HFRP Certified EIR determined that the simultaneous operation of on-site construction equipment associated with the HFRP project could result in combined intermittent noise levels up to approximately 84 dBA $L_{eq}$ at 50 feet from the construction activity (Table 10-10).

**Table 10-10. Typical Construction-Equipment Noise Levels**

| Type of Equipment | Noise Level (dBA) at 50 feet | |
|---|---|---|
| | Without Feasible Noise Control | With Feasible Noise Control[1] |
| Dozer or Tractor | 80 | 75 |
| Excavator | 88 | 80 |
| Scraper | 88 | 80 |
| Front-End Loader | 79 | 75 |
| Backhoe | 85 | 75 |
| Grader | 85 | 75 |
| Truck | 91 | 75 |
| Compactor | 81 | 75 |
| Paver | 89 | 80 |
| Pavement Scarifier | 90 | - |
| Drill | 98 | 80 |
| Generator | 78 | 75 |

Notes: dBA = A-weighted decibels

[1] Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds in accordance with manufacturers' specifications.

Sources: EPA 1971, FTA 2018, FHWA 2006

However, the 2010 HFRP Certified EIR found these impacts less than significant because construction activities for the project would be limited to 6 a.m.–8 p.m., Monday–Friday, during daylight saving time and 7 a.m.–8 p.m. during standard time. Construction activities would be allowed between 8 a.m. and 6 p.m. on Saturdays, and construction activities that are inaudible in areas outside the Park may be permitted on Sundays. Construction equipment would be fitted with factory installed muffling devices. Construction activity that occurs during these hours by equipment fitted with factory installed muffling devices would be exempt from the provisions of the Placer County Noise Ordinance. This impact was found to be **less than significant**.

### *Construction of Road and Access Improvements*

Noise levels from individual construction equipment range from 78 dBA to 91 dBA at 50 feet. The 2010 HFRP Certified EIR determined that the simultaneous operation of equipment used to construct roadway improvements could result in intermittent noise levels up to approximately 86 dBA $L_{eq}$ at 50 feet from the construction activity. Thus, if construction activities were to occur within 50 feet of a sensitive receptor during the more noise-sensitive hours of the day (i.e., hours not exempt under the Placer County Noise Ordinance), or if construction equipment were not properly equipped with noise control devices, construction-generated noise levels could exceed the applicable County nighttime standard of 45 dBA (Table 10-9) and substantially increase ambient noise levels at existing nearby sensitive receptors. However, construction activity would occur during periods when such activity would be exempt from the provisions of the Placer County Noise Ordinance. Therefore, the 2010 HFRP Certified EIR found this impact would be less than significant.

## 2019 HFRP Trails Expansion Project Impact Analysis

### *Construction of Parking and Trailhead Amenities*

Construction activities such as site preparation (e.g., clearing, excavation, and grading), staging, trenching, paving, building construction, equipment installation, finishing, cleanup, and other miscellaneous activities would generate temporary noise that is audible to nearby uses.

Trails will be constructed using a small dozer and completed by hand. Other equipment used for trail construction could include a mini excavator, haul trucks, and other types of machinery (e.g., graders) that would fit the size constraints of the 15- to 20-foot-wide trail corridors. Larger equipment such as graders, excavators, pavers, pneumatic tools, dozers, and haul trucks would be used to construct the proposed roads, bridges, parking areas, restrooms, and other facilities.

Based on the equipment noise levels summarized above in Table 10-10 and a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (single family residence located approximately 40 feet north of the project boundary at Twilight Ride) could exceed 82 dBA $L_{eq}$ without feasible noise controls. Thus, if construction activities were to occur during the more noise-sensitive hours of the day (i.e., hours not exempt under the Placer County Noise Ordinance) or if construction equipment were not properly equipped with noise control devices, construction-generated noise levels could exceed the applicable County nighttime standard of 45 dBA (Table 10-9) and substantially increase ambient noise at existing nearby sensitive receptors.

### *Construction of Road and Access Improvements*

Construction activities along Bell Road and Curtola Road would include adding a left turn pocket on Bell Road and road widening along Curtola Road (see Chapter 8.0, “Transportation and Circulation,” for a complete description of proposed road improvements). Although road widening of Garden Bar Road was already approved with the 2010 Certified EIR, construction of the Garden Bar entrance and parking area has not yet been initiated.

A complete list of equipment is not currently available; however, roadway improvements typically require a backhoe, compactor, dozer, excavator, pavement scarafier, paver, roller, pickup trucks, and haul trucks.

According to EPA, and as indicated in Table 10-10, noise levels from individual construction equipment range from 78 dBA to 91 dBA at 50 feet. The simultaneous operation of on-site construction equipment associated with the roadway improvements, as identified above, could result in combined intermittent noise levels up to approximately 86 dBA $L_{eq}$ at 50 feet from the construction activity. Based on the equipment noise levels and a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (located approximately 40 feet from roadway improvement areas) could exceed 82 dBA without feasible noise controls. Thus, if construction activities were to occur during the more noise-sensitive hours of the day (i.e., hours not exempt under the Placer County Noise Ordinance), or if construction equipment were not properly equipped with noise control devices, construction-generated noise levels could exceed the applicable County nighttime standard of 45 dBA (Table 10-8) and substantially increase ambient noise levels at existing nearby sensitive receptors.

However, as stated in Chapter 3.0, "Project Description," project construction activities would be limited to 6 a.m.–8 p.m., Monday–Friday during daylight saving time and 7 a.m.–8 p.m. during standard time. Construction activities would be allowed between 8 a.m.–6 p.m. on Saturdays. Construction activity that occurs during these hours would be exempt from the provisions of the Placer County Noise Ordinance and would occur during periods when people are less sensitive to noise. Therefore, this impact would be **less than significant**.

| | |
|---|---|
| IMPACT 10-2 | Noise—Increases in Long-Term (Operational) Noise Levels from Nontransportation Stationary and Area Sources. *Area-source noise may result from maintenance activities. However, exterior noise levels at the closest existing noise-sensitive receptor (approximately 40 feet) would not exceed any of the applicable County standards for daytime or nighttime noise, nor would they result in a substantial increase in ambient noise levels at nearby existing noise-sensitive receptors.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than significant* |

### 2010 HFRP Certified EIR Impact Summary

Use of the existing park and proposed trail expansion areas (including parking areas) would not result in the use of any new stationary sources of noise in the project area. However, area-source noise may result from maintenance activities, such as mowing and vegetation clearing (mowers, edgers, trimmers). According to EPA, such activities could result in noise levels reaching approximately 83 dBA at 3 feet from the source (from mowers and trimmers), depending on the exact equipment type and size (EPA 1971). Based on these equipment noise levels and a typical noise-attenuation rate of 6 dBA/DD, exterior noise levels at the closest existing noise-sensitive receptor (315 feet) would not exceed 43 dBA. Noise sources associated with property maintenance (e.g., mowers, edgers, power tools) that occur between 7 a.m. and 9 p.m. are also exempt from the Placer County Noise Ordinance. Use of maintenance equipment would be limited to these hours.

In addition, increased recreation use and associated noise (e.g., parking lot activity, people talking, children playing, and visitors riding bicycles or horses) would occur with implementation of the proposed project. However, since the existing HFRP hours of operation were (and continue to be) limited to being open from dawn to dusk, activities would not occur during the more noise-sensitive hours. For the reasons stated above, noise associated with Park maintenance or recreational use would not exceed the daytime or nighttime noise standards—55 dBA and 45 dBA, respectively—established by the Placer County Noise Ordinance (Table 10-7), nor would it substantially increase ambient noise at nearby existing noise-sensitive receptors. As a result, this impact was found to be **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

Vegetation clearing and similar maintenance activity would occur periodically along the trail alignment, on the entrance and access roads and at the parking areas. Such activities could result in noise levels reaching approximately 83 dBA at 3 feet from the source (from lawn mowers and trimmers), depending on the exact equipment type and size (EPA 1971).

In addition, increased recreation use and associated noise (e.g., parking lot activity, people talking, children playing, and visitors riding bicycles or horses) would occur with implementation of the proposed project. Maintenance and public use of the trail expansion areas would occur during daylight hours, when people are less sensitive to noise. Noise levels associated with operation of the HFRP Trails Expansion project would not exceed the daytime or nighttime noise standards—55 dBA and 45 dBA, respectively—established by the Placer County Noise Ordinance (Table 10-9), nor would it substantially increase ambient noise at nearby existing noise-sensitive receptors. As a result, this impact would be **less than significant**.

Proposed parking areas would be located near existing noise-sensitive rural residential uses. Based on the noise measurements described earlier in this section, the sound event Sound Exposure Level (SEL)[1] associated with a someone parking typically results in a noise level of 71 dBA SEL at 50 feet. When quantifying the associated noise level for parking stalls near rural residential uses, a conservative approach was taken to determine the number of parking events that may occur within a peak hour, the maximum number of spaces and distance to receptor. KD Anderson's traffic analysis indicates that the Harvego Bear River Preserve, Phase 4 generates 115 peak hour trips. Based on this trip generation rate, assuming that each parking space would be filled and emptied two (2) times during the peak hour, the total sound power level from this noise source would be 59.0 dBA at 50 feet. The hourly Leq for daily operations would be 42 dBA $L_{eq}$ at 350 feet from the center of the parking space cluster to the nearest noise-sensitive use (Harvego Bear River Preserve, Phase 4). Parking lot noise for Mears Place, Twilight Ride, and Garden Bar would result in noise levels below 40 $L_{eq}$ dBA at the nearest receptor to each respective parking area. As a result, parking events would not cause a long-term substantial noise increase to occur.

[1] A single event is an individual distinct loud activity, such as a train passage, or any other brief and discrete noise-generating activity such as parking lot noise, which is defined as noise generated by conversation, doors slamming, vehicle passage, and engines starting and stopping. SEL represents the entire sound energy of a given single-event normalized into a one-second period regardless of event duration. As a result, the single-number SEL metric contains information pertaining to both event duration and intensity. Because SEL describes a receiver's total noise exposure from a single impulsive event, SEL is often used to characterize noise from individual brief loud events.

| | |
|---|---|
| IMPACT 10-3 | Noise—Increases in Transportation-Related Noise Levels. *Short-term construction of the proposed project would not result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Noise increases associated with construction traffic would be temporary and would occur during the less noise-sensitive daytime hours. Long-term traffic associated with project operation would not exceed Placer County standards but would result in a noticeable (i.e., 3 dBA or greater) increase in traffic noise levels along area roadways. Short- and long-term traffic-generated noise levels would not exceed applicable Placer County noise standards; however, long-term traffic would increase ambient noise at nearby existing noise-sensitive receptors.* |
| Significance | *Significant Prior to Mitigation (No new significant impact from those of the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 10-1: Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset.*<br>*Mitigation Measure S10-2: Mitigation Measure S10-2: Use of pavement or similar hard material is required when laying the final surface on access roads and limit vehicle speeds to 25 mph* |
| Residual Significance | *Less than significant* |

## 2010 HFRP Certified EIR Impact Summary

### *Short-Term Construction-Related Traffic*

Construction of the HFRP introduced vehicle trips onto the local network. The 2010 HFRP certified EIR assumed that Phase 1 of construction was expected to be approximately 10–20% of the total number of truck trips (i.e., 40–80 truck trips). Typically, roadway traffic volumes have to double to generate a noticeable increase in traffic noise levels. The 2010 HFRP certified EIR found that adding these daily trips to the existing average daily traffic volumes would not result in a noticeable traffic noise increase along these roadways or an exceedance of Placer County transportation noise source standards (see Table 10-7).

### *Traffic Increases from Long-Term Use*

In the long term, it was estimated that the HFRP could generate up to 460 one-way daily weekend vehicle trips on local roadways (dispersed over all affected roadways). The majority of trips associated with daily Park operations would occur during the less noise-sensitive daytime hours and on weekends and holidays during the summer months. However, some HFRP traffic could occur during noise-sensitive evening hours. Adding these daily trips to the existing average daily traffic volume of approximately 285 weekday and 260 weekend average daily trips on Garden Bar Road North would result in a substantial 3.7-dBA increase in noise on Garden Bar Road North (see Table 10-11). Although the overall noise level would not exceed Placer County standards for new interior or exterior transportation noise sources (see Table 10-7), or increase interior noise levels by more 3 dBA, it would increase exterior noise levels by a substantial amount (more than 3 dBA). All other affected roadways would not exceed Placer County standards (see Table 10-7) or increase substantially (more than 3 dBA).

**Table 10-11. 2010 EIR - Comparison of Modeled Existing and Existing Plus Project Vehicular Traffic Noise Levels**

| Roadway Segment and Location | Average Daily Traffic | | CNEL (dBA) 50 Feet from Centerline of Near Travel Lane | | |
|---|---|---|---|---|---|
| | Existing | Existing Plus Project | Existing | Existing Plus Project | Net Change |
| **Weekday** | | | | | |
| Garden Bar Road[1], north of Mt. Pleasant Road | 285 | 476 | 47.9 | 50.1 | 2.2 |
| Garden Bar Road, south of Mt. Pleasant Road | 885 | 969 | 54.8 | 55.2 | 0.4 |
| Mt. Pleasant Road, west of Garden Bar Road | 375 | 457 | 53.4 | 54.2 | 0.9 |
| Mt. Pleasant Road, east of Garden Bar Road | 910 | 1,000 | 57.2 | 57.6 | 0.4 |
| Mears Drive[1], north of Mt. Vernon Road | 377 | 441 | 49.1 | 49.8 | 0.7 |
| **Weekend** | | | | | |
| Garden Bar Road[1], north of Mt. Pleasant Road | 260 | 605 | 47.5 | 51.2 | 3.7 |
| Garden Bar Road, south of Mt. Pleasant Road | 715 | 867 | 53.9 | 54.7 | 0.8 |
| Mt. Pleasant Road, west of Garden Bar Road | 310 | 458 | 52.5 | 54.2 | 1.7 |
| Mt. Pleasant Road, east of Garden Bar Road | 710 | 872 | 56.1 | 57.0 | 0.9 |
| Mears Drive[1], north of Mt. Vernon Road | 314 | 429 | 48.3 | 49.7 | 1.4 |

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibels. Traffic noise levels were modeled using the Federal Highway Administration traffic noise model (FHWA 1978) based on traffic volumes obtained from the traffic report prepared for this project (Chapter 8.0, "Transportation and Circulation"). Calculated noise levels do not consider any shielding or reflection of noise by existing structures, vegetation, or terrain features, nor do they consider noise contribution from other sources. See modeling results in Appendix E further detail.

[1] Assumes that 75% of project-generated traffic would access the project site via North Garden Bar Rd and that 25% of project-generated traffic would access the project site via Mears Drive.

Source: Modeling performed by EDAW in 2008.

## 2019 HFRP Trails Expansion Project

### *Short-Term Construction-Related Traffic*

As described in Chapter 8.0, "Transportation and Circulation," construction of the proposed trails expansion facilities would require approximately four 15-person crews and 10–15 other workers/delivery drivers on-site at any given time and 400 truck haul trips (distributed over several years) over the course of project construction. Assuming the crews would commute in four vans, one per 15-person crew, it is expected that the maximum number of vehicle trips generated in any one day would be four vans and 10–15 other worker/delivery vehicles. Typically, roadway traffic volumes have to double to generate a noticeable increase in traffic noise levels. For this reason, adding these daily trips to the existing average daily traffic volumes would not result in a noticeable traffic noise increase along these roadways or an exceedance of Placer County transportation noise source standards (see Table 10-7).

### *Long-Term Operational Impacts*

In the long term, the trails expansion project could generate up to 852 one-way (1,705 both directions) daily weekend vehicle trips on local roadways (dispersed over all affected roadways). The majority of trips associated with daily operations would occur during the less noise-sensitive daytime hours and on weekends and holidays during the summer months. However, some traffic could occur during noise-sensitive evening hours. Typically, roadway traffic volumes have to double to generate a noticeable increase in traffic noise levels. As shown on

Table 12 of the traffic study (Appendix D), project operation would not result in a doubling of traffic volumes along any studied roadway segment, with the exception of Garden Bar Road, from Mt. Pleasant Road to the Park's entry, and Auburn Valley Road from Fairway to Curtola Ranch Road. These sections of roadway are paved, and would only experience a traffic noise level increase during the less sensitive daytime hours. Even though the increase in ambient noise levels would be 3 dBA or more, the resulting traffic noise level would not exceed 55 dBA at 50 feet and would comply with the County's exterior transportation noise standard. For these reasons and the lack of feasible mitigation, no further mitigation is required.

However, vehicle noise would be greatest where project traffic congregates around the entries. The proposed access road to the Twilight Ride parking area would place a new transportation noise source adjacent to residential uses. Future traffic volumes along this proposed access road could be as high as 599 vehicle trips per day as shown in Table 9 of the traffic study (Appendix D). Under a worst-case scenario, on a Saturday peak hour time, this would mean that approximately 63 vehicles trips could be made on the proposed Twilight Ride access road in one hour. At 25 mph, the resulting exterior noise level would be 47 dBA $L_{eq}$ at 40 feet from the adjacent residential property line.

Use of Curtola Ranch Road for accessing the park entry would also increase traffic volumes near residential uses. At full build-out of the Harvego Bear River Preserve parking area, future traffic volumes along this proposed access road could be as high as 573 vehicle trips per day. Under a worst-case scenario, on a Saturday peak hour time, this would mean that approximately 60 vehicles trips could be made on Curtola Ranch Road in one hour. At 25 mph, the resulting exterior noise level would be 47 dBA $L_{eq}$ at 50 feet from the adjacent residential property line.

Short- and long-term traffic-generated noise levels would not exceed applicable County noise standards, but long-term exterior traffic noise levels would increase at nearby existing noise-sensitive receptors by more than 3 dBA on proposed park entry access roads. As a result, this impact would be significant. Implementation of Mitigation Measure 10-1 and S10-2 would reduce this impact to a **less-than-significant** level.

| | |
|---|---|
| IMPACT 10-4 | Noise—Exposure of Persons to or Generation of Excessive Groundborne Vibration or Noise Levels. *Ground vibration levels generated by on-site construction equipment would not exceed Caltrans's recommended standard of 0.2 in/sec PPV for the prevention of structural damage or FTA's maximum-acceptable vibration standard with respect to human annoyance for residential uses (80 VdB for residential structures). In addition, long-term use and maintenance of the project area would not include the operation of any sources of ground vibration. Thus, the proposed project would not result in the exposure of persons to or generate excessive groundborne vibration or groundborne noise levels.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 HFRP certified EIR found that construction equipment would generate temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The vibration analysis considered equipment such as a Sweco trail dozer, trucks, excavators, cranes, bobcats, pavers and graders. As shown in Table 10-11, construction haul trucks generate ground vibration levels up to 0.076 in/sec PPV and 86 VdB (referenced to 1 μin/sec and based on the RMS velocity amplitude) at a distance of 25 feet. These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (Caltrans 2013b) with respect to the prevention of structural damage for normal buildings. The 2010 HFRP certified EIR found that construction of park improvements would not result excessive groundborne vibration or groundborne noise levels. As a result, this impact was found to be less than significant.

### 2019 HFRP Trails Expansion Project Impact Analysis

Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. Table 10-12 displays typical vibration levels for construction equipment.

**Table 10-12. Typical Vibration Levels of Construction Equipment**

| Equipment | PPV at 25 feet (in/sec)[1] | Approximate $L_v$ at 25 feet[2] |
|---|---|---|
| Large Bulldozer | 0.089 | 87 |
| Caisson Drilling | 0.089 | 87 |
| Trucks | 0.076 | 86 |
| Jackhammer | 0.035 | 79 |
| Small Bulldozer | 0.003 | 58 |

Notes: in/sec = inches per second; $L_v$ = velocity level in decibels referenced to 1 microinch per second and based on the root mean square velocity amplitude; PPV = peak particle velocity
Source: Federal Transit Administration 2018

As discussed above, on-site construction equipment could include equipment such as a Sweco trail dozer, trucks, excavators, cranes, bobcats, pavers and graders. As shown in Table 10-12, construction haul trucks generate ground vibration levels up to 0.076 in/sec PPV and 86 VdB (referenced to 1 μin/sec and based on the RMS velocity amplitude) at a distance of 25 feet. Using FTA's recommended procedure for applying a propagation adjustment, truck-generated vibration levels would attenuate to approximately 0.02 in/sec PPV and 74 VdB at the closest existing noise-sensitive receptor located 60 feet of the nearest project area. These vibration levels would not exceed Caltrans's recommended standard of 0.2 in/sec PPV (Caltrans 2013b) with respect to the prevention of structural damage for normal buildings or FTA's maximum-acceptable vibration standard of 80 VdB (FTA 2018) with respect to human annoyance. In addition, the long-term operation of the proposed project (i.e., use and maintenance of the proposed Park) would not include any vibration sources. Thus, short-term construction and long-term operation would not result in the exposure of persons to or generate excessive groundborne vibration or groundborne noise levels. As a result, this impact would be **less than significant**.

## 10.5 MITIGATION MEASURES

Mitigation Measure 10-1: Restrict General Public Traffic to 6 a.m. to 30 Minutes after Sunset.

The County shall restrict all long-term general public traffic to 6 a.m. to 30 minutes after sunset by ensuring that the expansion area parking gates are closed and locked outside of these times. With implementation of Mitigation Measure 10-1, traffic noise level increases on Garden Bar Road North would be reduced below a substantial amount (3 dBA or more), as shown in Table 10-1. This, in combination with Mitigation Measure S10-2, would reduce Impact 10-3 to a less-than-significant level.

Mitigation Measure S10-2: Use of pavement or similar hard material is required when laying the final surface on access roads and limit vehicle speeds to 25 mph.

The County shall use paving or similar hard surfacing material when constructing new access roads to reduce tire noise generated from interaction with gravel. Vehicle speeds on the newly constructed access roads shall be limited to 25 mph.With implementation of Mitigation Measure S10-2 traffic noise level increases would be reduced below a substantial amount (3 dBA or more), as shown in Table 10-1. This, in combination with Mitigation Measure 10-1, would reduce Impact 10-3 to a less-than-significant level.

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# 11.0 HYDROLOGY AND WATER QUALITY

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) hydrology and water quality findings; describes the existing HFRP and proposed trail network expansion project area (project area) environmental setting and pertinent regulations; evaluates project-related impacts associated with hydrology and water quality; and provides mitigation measures as necessary to reduce those impacts.

## 11.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 HFRP CERTIFIED EIR

Chapter 6, "Hydrology and Water Quality" of the 2010 HFRP Certified EIR included a detailed discussion of the park environmental and regulatory setting, potential impacts associated with hydrology and water quality resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts.

### 11.1.1 FINDINGS OF FACT

The following is a summary of the 2010 EIR findings.

- Project construction could cause short-term degradation of water quality. Areas where vegetation would be removed and topography altered could be subject to erosion from rain and wind. In addition, accidental spills of construction-related contaminants could occur during construction in the park project area. Both of these mechanisms could carry soil and construction-related contaminants to on-site drainages before they are ultimately discharged to what is now known as Raccoon Creek. The finding was made by the County that preparing and implementing a grading and drainage plan would reduce the potentially significant impact to **less than significant**.

- The findings acknowledged that both the use of the proposed park trail system and extreme weather events could cause long-term degradation of water quality from soil erosion and creek sedimentation. The introduction of impervious surfaces on-site such as the access roads and parking areas had the potential to alter existing absorption rates and increase runoff of surface water into what is now known as Raccoon Creek and other drainages on-site. However, obtaining authorization for construction and operation activities from the Central Valley Regional Water Quality Control Board (RWQCB) and fulfilling all permit conditions, and implementing erosion and sediment control measures and a grading and drainage plan reduced the potentially significant impact to **less than significant**.

- The findings concluded that operation of two septic systems could change the quality of the groundwater in the HFRP if the septic systems were not sited properly. Although suitable soils were identified on-site, the potential still existed for changes in groundwater quality to occur. The finding was made that implementing a groundwater protection program through a transient non-community water system permit and fulfilling all permit conditions, would reduce the potentially significant impact to **less than significant**.

- The findings stated soil compaction from constructed facilities could slightly impede recharge in localized areas, but not to significant levels because less than 5 acres of the HFRP would be developed with impervious surfaces. It was noted that installation of groundwater wells for uses related to the proposed facilities could

increase the demand for groundwater; however, park-related groundwater demand would not be substantial and was similar to yield rates found in private wells in the park vicinity. The estimated water demand necessary for fire suppression was not considered by the *2009 Water Demand Calculation Report*. This potentially significant impact to groundwater quality and supply was found to be **less than significant** with implementation of groundwater protection measures through obtaining and fulfilling all permit conditions for a transient non-community water system permit and updating the 2009 Water Demand Calculation Report to include fire suppression water requirements and management.

### 11.1.2 HFRP Mitigation Measures Adopted by the County in 2010

Implementation of the following mitigation measures, which were adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on hydrology and water quality to less than significant.

- **Mitigation Measure 11-1**: Prepare and Implement a Grading and Drainage Plan.
- **Mitigation Measure 11-2**: Implement Groundwater Protection through a Transient Non-Community Water System Permit.
- **Mitigation Measure 11-3**: Calculate Water Demands for Fire Suppression.

## 11.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The setting of this Subsequent EIR describes the physical environmental conditions of the proposed HFRP trails expansion project. See Chapter 11.0 “Hydrology and Water Quality” of the 2010 HFRP EIR for information about the existing park.

### 11.2.1 Regional Hydrology

The project area is located within the south-central portion of the Sacramento River Hydrologic Region, as defined by the California Department of Water Resources (DWR). The Sacramento River Hydrologic Region covers approximately 17.4 million acres (27,200 square miles). The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Butte, Colusa, Sutter, Yuba, Sierra, Nevada, Placer, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa Counties. Small areas of Alpine and Amador Counties are also within the region. Geographically, the region extends south from the Modoc Plateau and Cascade Range, at the Oregon border, to the Sacramento–San Joaquin River Delta.

The Sacramento Valley, which forms the core of the region, is bounded to the east by the crest of the Sierra Nevada and southern Cascades and to the west by the crest of the Coast Range and Klamath Mountains. Other significant features include Mount Shasta and Lassen Peak in the southern Cascades; the Sutter Buttes in the south-central portion of the valley; and the Sacramento River and its major tributaries, the Pit, Feather, Yuba, Bear, and American Rivers (DWR 2003).

## 11.2.2 DESCRIPTION OF THE LOCAL WATERSHED

### RACCOON CREEK WATERSHED

The HFRP, Taylor Ranch, Kotomyan Preserve, Twilight Ride parcels, Garden Bar 40 parcel and Connectivity parcels (County-owned or easement areas linking the existing HFRP and the Taylor Ranch) are situated in the Raccoon Creek watershed. The Raccoon Creek watershed originates in the foothills northeast of the town of Auburn. The upper watershed (east of State Route 49) is composed mainly of two intermittent tributaries, Dry Creek and Orr Creek, which merge approximately 6 miles upstream of the project area to form Raccoon Creek. It includes a reach of Raccoon Creek that is in a steep canyon running east-west approximately 3 miles south of the Bear River. Raccoon Creek flows from the eastern boundary of the HFRP to the western boundary of Taylor Ranch. Several intermittent tributaries flow into Raccoon Creek from both the north and the south, and one perennial tributary, Deadman Creek, intersects Raccoon Creek on the eastern end of the HFRP. Adjacent land uses are rural residential home sites and agriculture, mostly in the form of cattle grazing. Both the Taylor Ranch and Kotomyan Preserve contain recreational trails currently utilized by the Placer Land Trust (PLT) for docent-led tours, and both Taylor Ranch and Kotomyan Preserve include undeveloped land used for cattle grazing. Exhibit 11-1 shows the local watershed and hydrology in the project vicinity.

The adjacent land is used for grazing and minimal infrastructure has been developed in this area. Vegetation associated with this reach of Raccoon Creek consists of a combination of oak and riparian woodlands and some open wetland floodplain terraces. The stream channel is dominated by basalt and granite bedrock and large cobble. The remainder of the stream channel (down to its confluence with the East Side Canal) is narrow and generally shallowly incised as it meanders through intensively farmed floodplains. The East Side Canal ultimately drains into the Natomas Cross Canal, which enters the Sacramento River just below the confluence with the Feather River.

West of the Taylor Ranch property, a diversion dam operated by the Nevada Irrigation District diverts water for irrigation from Raccoon Creek into Camp Far West Canal. Most of the water flows to the Bear River, just upstream of the confluence with the Feather River. A small portion flows into Camp Far West Reservoir approximately 4 miles northwest of the project area. The distance from Raccoon Creek to the Sacramento River is approximately 30 miles.

### BEAR RIVER WATERSHED

The Harvego, Outman Preserve, and Liberty Ranch property are situated in the Bear River watershed (Exhibit 11-1). The Bear River Watershed is located between two much larger watersheds, the Yuba to the north and American to the south. The watershed is heavily managed for water conveyance for agricultural water supply and hydropower development that serves the western foothills region (Sacramento Watershed Program 2010).

The Bear River borders the northern boundary of the Harvego. Harvego includes a working cattle ranch, an extensive network of existing dirt ranch roads, and trails developed by the PLT. The Auburn Valley Golf Club and residential neighborhood are located southeast of the Harvego. Outman Preserve and Liberty Ranch consist of undeveloped land used for cattle grazing. Most of the adjacent land is used for grazing and minimal infrastructure has been developed in this area.

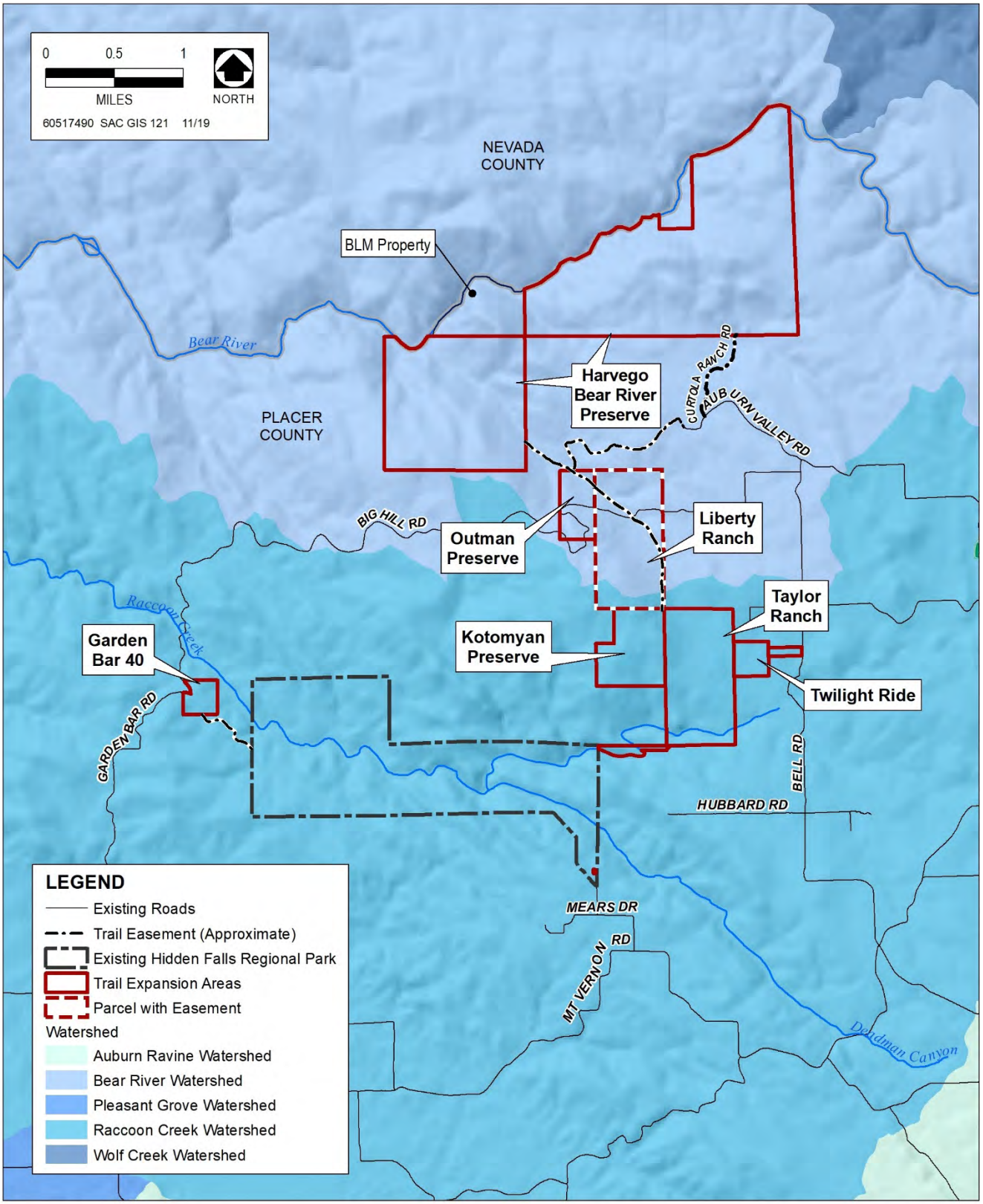


**Exhibit 11-1. Local Watershed and Hydrology**

Near the expansion area, the Bear River is fed by Wolf Creek and flows into Camp Far West Reservoir, the largest water body in the Bear River Watershed. Vegetation associated with this portion of the Bear River generally consists of blue oak woodlands, blue oak – foothill pine, montane hardwoods, riparian and riverine habitat. The Bear River contains a large volume of mining sediment stored in its main channel that is subject to continual erosion. The high volume of mining sediment, in combination with restricting levees, has caused the Lower Bear channel to become deeply incised.

#### Sewer Maintenance District 1 Wastewater Treatment Plant

At the time the 2010 HFRP EIR was certified, Raccoon Creek had continuous flow in the dry season and received discharge of treated effluent into Rock Creek from the Placer County Sewer Maintenance District 1 Wastewater Treatment Plant (WWTP). Rock Creek is a tributary of Dry Creek and the former discharge was 1.65 million gallons per day (mgd) (2.56 cubic feet per second) of daily inflow to Raccoon Creek. Nutrients in the effluent from Placer County Sewer Maintenance District 1's WWTP were found to increase nutrient load of and contribute to accelerated growth of algae, as well as depressed nighttime concentrations of dissolved oxygen. Cattle grazing along lower Raccoon Creek also contributes to the nutrient load and biological oxygen demand of the creek (RWCB 2015).

As part of the Mid-Western Placer Regional Sewer Project, the County and cities of Auburn and Lincoln agreed to plan, design, permit, finance and construct a regional wastewater treatment and disposal system. The project closed Sewer Maintenance District 1 and constructed pumping facilities and a conveyance line to transport the waste previously treated at the plant to the existing City of Lincoln Wastewater Treatment and Recycling Facility, which does not discharge to the Raccoon Creek watershed (Placer County 2015).

### 11.2.3 GROUNDWATER

The Sacramento River Hydrologic Region receives between 20 percent and 40 percent of its supply from groundwater. Groundwater quality in the region is generally considered to be excellent; however, there are small localized problems where brackish to saline water are near the surface (DWR 2003). The expansion area does not lie within an area defined by DWR as a discrete groundwater basin. Local groundwater conditions consist of fractured rock substrate and recharge from Raccoon Creek, and regional groundwater levels are expected to be greater than 50 feet in depth. Groundwater supplies from fractured rock sources are highly variable in terms of water quantity, as well as water quality because of historic mining practices in the region. Current water development in the project vicinity is in the form of individual private wells that provide drinking water for residences and irrigation. Review of Placer County well reports in the area indicator that depth to water ranges from 250 to 900 feet. Where static water levels were noted, they ranged between 50 and 240 feet and well yields ranged from 1.3 to 7 gallons per minute (gpm).

The HFRP contains a well at the Mears Place entrance as well as one at the ranch house on the western side of the existing park. The ranchhouse well was reconstructed to public standards in mid 2000s. The Mears Place well serves a public 2-stall restroom building, 12,000-gallon fiberglass, underground fire suppression storage tank with hydrant, public drinking fountain, and animal watering facilities. The system is owned and operated by Placer County Department of Facility Services. The well was originally constructed in April 2000, and was re-constructed to public well standards in July 2006. The well was drilled to a depth of 550 feet deep and constructed using a 55-foot bentonite annular seal and 60 feet of 6" class 125 PVC well casing. In 2015, the Placer County Health and Human Services Department declared the existing well at the Mears Place entrance could no longer

meet the needs of the public water system due to the low yield. Subsequently, the water system was shut down and the County had to find alternative water supplies through the periodic filling of the 12,000-gallon tank via a water truck. Construction of a new well at the Mears entrance (or reinstitution of the existing well) is expected to be completed in the near future.

A groundwater well operating on the Twilight Ride parcel currently pumps at a rate of 15 gpm, providing potable water to the residential dwelling on the property. A groundwater well is also located in the Harvego which is used for pasture irrigation.

## 11.3 REGULATORY SETTING UPDATE

### 11.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

#### FEDERAL EMERGENCY MANAGEMENT AGENCY

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA; the minimum level of flood protection for new development has been determined to be protection against the flood with a 1-in-100 chance of occurring in a given year (i.e., the 100-year flood event). The proposed project is not located within a FEMA 100-year flood zone; however, portions of the project area are within the 100-year floodplain of Raccoon Creek. Several dams located on the Bear River upstream of the HFRP Trail Expansion area provide flood control and water supply storage for agricultural uses.

#### FEDERAL CLEAN WATER ACT OF 1972

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by the EPA and the states. Various elements of the CWA, discussed below, address water quality. Wetland protection elements administered by the U.S. Army Corps of Engineers under Section 404 of the CWA, including permits to dredge or fill wetlands, are discussed in Chapter 12.0, “Biological Resources.”

#### WATER QUALITY CRITERIA AND STANDARDS

Under federal law, the EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (40 CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: identified designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, the EPA has granted the State Water Resources Control Board (SWRCB) and its nine RWQCBs the authority to identify beneficial uses and adopt applicable water quality objectives.

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT PROGRAM

The National Pollutant Discharge Elimination System permit program was established to regulate municipal and industrial discharges to surface waters of the United States. The discharge of wastewater to surface waters is prohibited unless an NPDES permit issued by the applicable RWQCB allows that discharge. NPDES permit regulations have been established for broad categories of discharges—point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify allowable concentrations of effluent in receiving waters or limits on pollutant emissions contained in discharges, or both; prohibit discharges not specifically allowed under the permit; and describe required actions by the discharger, including industrial pretreatment, pollution prevention, and self-monitoring.

In November 1990, the EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase 1 of the permitting program applies to municipal discharges of stormwater in urban areas where the population exceeds 100,000 persons. Phase 1 also applies to stormwater discharges from a large variety of industrial activities, including general construction activities if the project would disturb more than 5 acres. Phase 2 of the NPDES stormwater permit regulations, which became effective in March 2003, require that NPDES permits be issued for construction activities for projects that disturb between 1 and 5 acres. The RWQCBs in California are responsible for implementing the NPDES permit system (see additional information under "NPDES Permit System and Waste Discharge Requirements" below).

### SECTION 401 WATER QUALITY CERTIFICATION OR WAIVER

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the SWRCB to the nine RWQCBs.

### SECTION 303(D) IMPAIRED WATERS LIST

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives for specific pollutants after point-source dischargers (municipalities and industries) implement required levels of treatment. Raccoon Creek is not listed as a Section 303(d) impaired water body nor is the Bear River. The Central Valley Basin Plan states at page II-2.00 that the "…beneficial uses of any specifically identified water body generally apply to its tributary streams." The beneficial uses of Raccoon Creek are not individually identified in the Basin Plan, but Raccoon Creek is a tributary to Natomas East Main Drainage Canal, which flows into the Sacramento River immediately north of the confluence with the American River. Existing beneficial uses for these receiving waters, and therefore Raccoon Creek, are municipal and domestic supply, agricultural irrigation, water contact recreation, canoeing and rafting recreation, other non-contact water recreation, warm freshwater aquatic habitat, cold freshwater aquatic habitat, warm fish migration habitat, cold fish migration habitat, warm and cold spawning habitat, wildlife habitat, and navigation. In addition, pursuant to SWRCB Resolution No. 88-63 described below, the beneficial uses of Raccoon Creek (and Rock and Dry Creeks) are municipal and domestic supply. Beneficial uses of the Bear River include municipal and domestic supply, agriculture, power, and recreation including contact and non-contact, fresh water habitat and wildlife habitat.

## 11.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

In California, the SWRCB has broad authority over water quality control issues for the state. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the state by the federal government under the CWA. Other state agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) (for drinking-water regulations), the California Department of Pesticide Regulation, the California Department of Fish and Game, and the Office of Environmental Health Hazard Assessment.

Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans (Basin Plans) for all areas in the region and establish water quality objectives in the plans. The Central Valley RWQCB is responsible for the water bodies in the project vicinity.

### PORTER-COLOGNE WATER QUALITY CONTROL ACT OF 1969

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is California's statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. Basin Plans are the regional water quality control plans required by both the CWA and Porter-Cologne Act in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD/WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

### STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 88-63

Resolution No. 88-63, Sources of Drinking Water Policy, adopted on May 19, 1988, specifies that, except under specifically defined exceptions, all surface and ground waters of the state are to be protected as existing or potential sources of municipal and domestic supply, including those within the proposed Project. Because Raccoon Creek is not identified in Table II-1 of the Basin Plan, this resolution applies. The specific exceptions include waters with:

- existing high total dissolved solids concentrations (greater than 3,000 mg/l),
- low sustainable yield (less than 200 gpd for a single well),
- contamination that cannot be treated for domestic use using best management practices or best economically achievable treatment practices,
- waters within particular municipal, industrial and agricultural wastewater conveyance and holding facilities, and
- regulated geothermal ground waters.

Where the SWRCB or RWQCBs determines that one of the exceptions applies for a particular waterbody, it may remove the municipal and domestic supply beneficial use designation through a formal Basin Plan amendment and a public hearing, followed by approval of the amendment by the SWRCB and the Office of Administrative Law.

### NPDES Permit System and Waste Discharge Requirements

The SWRCB and Central Valley RWQCB have adopted specific NPDES permits or WDRs, or both, for a variety of activities that have the potential to discharge wastes to waters of the state or to land. Dischargers are required to eliminate or reduce nonstormwater discharges to storm sewer systems and other waters. The SWRCB's statewide stormwater permit for general construction activity (Order 99-08-DWQ, as amended) is applicable to all land-disturbing construction activities that would disturb more than 1 acre, including the proposed project. Construction activities such as clearing, grading, stockpiling, and excavation are subject to the statewide general construction activity NPDES permit. The proposed project would expose more than 1 acre of area to stormwater runoff and thus would require an NPDES stormwater permit for general construction activity.

The NPDES permit requires that a notice of intent be filed with the RWQCB to discharge stormwater and that a storm water pollution prevention plan be prepared and implemented to control contaminated runoff from temporary construction activities. The plan provides specifications for erosion and sediment best management practices (BMPs), means of waste disposal, methods for implementing approved local plans, postconstruction sediment and erosion control BMPs and maintenance responsibilities, nonstormwater management BMPs, and requirements for inspecting the performance of BMPs.

NPDES permits require that design and operational BMPs be implemented to reduce the level of contaminant runoff during construction. The permit also requires dischargers to consider the use of permanent postconstruction BMPs that will remain in service to protect water quality throughout the life of the project. Types of BMPs include source controls, treatment controls, and site planning measures.

The NPDES regulations also require that appropriate hazardous materials management practices be implemented to reduce the possibility of chemical spills or release of contaminants, including any nonstormwater discharge to drainage channels.

In the event that water discharges occur in Raccoon Creek crossing areas during construction, construction dewatering activities that discharge to surface waters require NPDES authorization under the RWQCB's General Order for Dewatering and Other Low-Threat Discharges to Surface Waters (Order No. 5-00-175). This permit requires the applicant to submit a notice of intent before the activity verifying that the dewatering will occur in compliance with applicable water quality objectives. It contains terms and conditions for discharge prohibitions, specific effluent and receiving-water-quality limits, solids disposal activities, and water quality monitoring protocols. The permit authorizes direct discharges to surface waters of up to 250,000 gpd for no more than a 4-month period each year. No crossings of the Bear River are proposed by the HFRP Trail Extension project.

The Central Valley RWQCB may also issue site-specific WDRs, or waivers to WDRs, for certain waste discharges to land or waters of the state. In particular, RWQCB Resolution R5-2003-0008 identifies activities subject to waivers of RWDs or WDRs, or both, for a variety of activities, including minor dredging activities and construction dewatering activities that discharge to land.

All NPDES permits have inspection, monitoring, and reporting requirements. In Resolution 2001-046, the Central Valley RWQCB responded to a court decision by implementing mandatory water-quality sampling requirements for visible and nonvisible contaminants in discharges from construction activities. Water-quality sampling is now required if the activity could result in the discharge of turbid water or sediment to a water body that is listed as impaired under Section 303(d) because of sediment or siltation, or if a release of a nonvisible contaminant occurs. Where such pollutants are known or should be known to be present and have the potential to contact runoff, sampling and analysis are required.

#### SAFE DRINKING WATER ACT

Proposed project features include groundwater wells for domestic supplies, emergency response and landscape irrigation. Under the Safe Drinking Water Act (Public Law 93-523), passed in 1974, the EPA regulates contaminants of concern to domestic water supplies. Contaminants of concern that are relevant to domestic water supplies are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by the EPA national primary and national secondary drinking water regulations. Maximum contaminant levels (MCLs) are set for all contaminants of concern. MCLs and the process for setting these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking-water MCLs.

The EPA has delegated to DHS the responsibility for administering California's drinking-water program. DHS is accountable to the EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by the EPA.

Title 22 of the California Code of Regulations (Article 16, Section 64449) defines secondary drinking-water standards that are established primarily for reasons of consumer acceptance (i.e., taste), rather than because of health issues. For mineralization (i.e., total dissolved solids and chloride), the secondary standards are expressed in the form of recommended, upper, and short-term MCLs. The recommended, upper, and short-term MCLs for total dissolved solids are 500, 1,000, and 1,500 milligrams per liter, respectively.

#### GROUNDWATER WELLS

Proposed project features include a new groundwater well at each of the three proposed parking areas. Section 13801 of the California Water Code requires the SWRCB to adopt a model ordinance and each county, city, or water agency to adopt ordinances for well placement, construction, and abandonment that meet or exceed DWR standards (California Water Code Section 231). Standards for wells in California are found in DWR Bulletins No. 74-81 and No. 74-90, entitled "Water Well Standards, State of California." All wells proposed for the expansion areas will need to be permitted through the Placer County Environmental Health Department.

### 11.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for hydrology and water quality.

**Goal 6.A:** To protect and enhance the natural qualities of Placer County's rivers, streams, creeks and groundwater.

- **Policy 6.A.4.e.** Where creek protection is required or proposed, the County should require public and private development to: use design, construction, and maintenance techniques that ensure development near a creek will not cause or worsen natural hazards (such as erosion, sedimentation, flooding, or water pollution) and will include erosion and sediment control practices such as: 1) turbidity screens and other management practices, which shall be used as necessary to minimize siltation, sedimentation, and erosion, and shall be left in place until disturbed areas; and/or are stabilized with permanent vegetation that will prevent the transport of sediment off site; and 2) temporary vegetation sufficient to stabilize disturbed areas.

- **Policy 6.A.5.** The County shall continue to require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff and to encourage the use of BMPs for agricultural activities.

- **Policy 6.A.6.** The County shall require development projects to comply with the municipal and construction stormwater permit requirements of the Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) Phase I and II programs and the State General Municipal and Construction permits. Municipal requirements affecting project design and construction practices are enacted through the County's Stormwater Quality Ordinance. Separate construction permits may be required by and obtained through the State Water Resources Control Board.

- **Policy 6.A.7.** All new development and redevelopment projects shall be designed so as to minimize the introduction of pollutants into stormwater runoff, to the maximum extent practicable, as well as minimize the amount of runoff through the incorporation of appropriate Best Management Practices.

- **Policy 6.A.9.** The County shall require that natural watercourses be integrated into new development in such a way that they are accessible to the public and provide a positive visual element.

- **Policy 6.A.10.** The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

- **Policy 6.A.13**. The County shall protect groundwater resources from contamination and further overdraft by pursuing the following efforts:

  a. Identifying and controlling sources of potential contamination;

  b. Protecting important groundwater recharge areas;

  c. Encouraging the use of surface water to supply major municipal and industrial consumptive demands;

  d. Encouraging the use of treated wastewater for groundwater recharge; and

  e. Supporting major consumptive use of groundwater aquifer(s) in the western part of the County only where it can be demonstrated that this use does not exceed safe yield and is appropriately balanced with surface water supply to the same area.

## 11.4 IMPACTS

### 11.4.1 ANALYSIS METHODOLOGY

The focus of this analysis is hydrology and water quality impacts that would result from project implementation. This analysis also considers how the trails expansion project would or would not change the conclusions of the prior environmental review.

The environmental analysis for hydrology and water quality was based largely on background information included in the 2013 Placer County General Plan and California's Groundwater Bulletin 118 (DWR 2003), the hydraulic and hydrologic analysis prepared by Carlton Engineering (2012) as well as a review of existing conditions of the project vicinity. The effects of the proposed project were compared to environmental baseline conditions (i.e., existing setting at the time of the NOP to determine impacts).

### 11.4.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on hydrology or water quality if it would:

- violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in a substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows;
- in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### 11.4.3 IMPACT ANALYSIS

IMPACT 11-1 Hydrology and Water Quality—Potential for Short-Term, Construction-Related Soil Erosion and Impairment of Water Quality. *The proposed trails expansion project construction could cause short-term degradation of water quality. Areas where vegetation would be removed and topography altered could be subject to erosion from rain and wind. In addition, accidental spills of construction-related contaminants could occur during construction in the project area. Both of these mechanisms could carry soil and construction-related contaminants to on-site drainages before they are ultimately discharged to Raccoon Creek.*

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| Significance | *Potentially Significant (No new significant impact from the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan; and Mitigation Measure S5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The analysis in the 2010 HFRP Certified EIR found that construction activity would remove vegetation and disturb soil, including along Garden Bar Road, parking area and the trail system construction corridors. Some soils in the HFRP were identified as having moderate to high erosion potential. Removal of duff and vegetation would expose soil and could cause unstable conditions, resulting in soils that could easily be disturbed by rain, wind, and construction equipment. These conditions could affect surface water quality because of erosion and sedimentation entering waterways. Accidental spills of construction–related contaminants (e.g., fuels, oils, solvents) were also identified in the document as having the potential for degrading water quality. The implementation of Mitigation Measures 11-1 and 5-1 was found to reduce the potentially significant impact to **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Grading and vegetation removal during construction of access roads, parking areas, bridge and overlook footings, restrooms, and the trail system has the potential to result in soil erosion. Construction of activity would require total ground disturbance of approximately 41.8 acres (21.2 permanent acres and 20.6 temporary acres). Construction of the trail system would disturb approximately 23 acres (7.7 acres permanent and 15.5 acres temporary) of land in linear construction corridors distributed around the expansion area along the proposed trail alignments. Trailhead improvements including parking, access road and amenities would disturb 18.5 acres (13.5 permanent and 5.0 temporary). Vegetation removed during construction would be chipped or lopped and broadcast in the immediate area. Vegetation removed at parking areas would be stockpiled and following construction, used as mulch on exposed areas.

Removal of duff and vegetation would expose bare soil and could cause unstable conditions, resulting in soils that are easily disturbed by equipment and eroded by rain and wind. This could affect surface water quality in Raccoon Creek, the Bear River and other drainages because of erosion and sedimentation from project construction. Although the majority of gradients in the project area never exceed 20%, the gradients of some areas of the canyon straddling Raccoon Creek and abutting the Bear River approach 50%. In addition, some soils in the project area have moderate to high erosion potential, which could result in erosion of surface soils during construction (see Section 5.0, "Soils, Geology, and Seismicity").

Accidental spills of construction-related contaminants such as fuels, oils, solvents, and cleaners could also occur during construction activities in the project area, resulting in degradation of water quality. Runoff from the areas disturbed by construction of the proposed facilities could also result in sedimentation effects on intermittent

drainages, Raccoon Creek and the Bear River. This impact would be potentially significant, because the construction areas are close enough to the creeks and river that spills or eroded sediment could reach the waterways. Implementation of Mitigation Measures 11-1, requiring grading and drainage plans, and S5-1, requiring approval from the RWQCB, would reduce this impact to a **less-than-significant** level.

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| IMPACT 11-2 | Hydrology and Water Quality—Potential for Long-Term Soil Erosion and Impairment of Water Quality. *Use of the proposed trail expansion system and extreme weather events could cause long-term degradation of water quality from soil erosion and creek sedimentation. The introduction of impervious surfaces on-site such as the access roads and parking areas has the potential to alter existing absorption rates and increase runoff of surface water into Raccoon Creek and other drainages on-site.* |
| Significance | *Potentially Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan; and Mitigation Measure S5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

As discussed in the 2010 Certified EIR, portions of the park project would be constructed in areas with steep slopes that have the potential for erosion. Areas from which vegetation has been removed could also be subject to erosion from rain and wind. The proposed trails would be maintained as an exposed dirt surface that would increase the amount of soil exposed to wind and water erosion. These activities along with extreme weather events could carry easily disturbed soil into intermittent drainages that would ultimately discharge into Raccoon Creek, decreasing water quality. However, long-term and on-going maintenance of the proposed park trails and trail crossings would repair weather-related damage to reduce impacts related to soil erosion. Implementation of Mitigation Measures 11-1 and 5-1 further reduced the potentially significant impact to **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

Portions of the proposed project would be constructed in areas with some steep slopes that have the potential for erosion. Approximately 30 miles of trails, consisting of either already-constructed or new natural-surface trails for hikers, bikers, and equestrians—including bridge crossings over Raccoon Creek, Deadman Creek, and other intermittent streams—would be connected to the existing HFRP trail system. Areas from which vegetation has been removed could be subject to erosion from rain and wind. These mechanisms could carry soil into intermittent drainages before they are ultimately discharged to Raccoon Creek or the Bear River. The proposed trails would be maintained as an exposed dirt surface that would increase the amount of soil exposed to wind and water erosion. Extreme weather events in combination with the disturbed areas could increase erosion and decrease water quality. This impact is considered potentially significant.

The proposed trail alignments would generally follow contours to minimize grades, discourage erosion from water velocity on steep profiles, and protect natural resources. Similar to the bridges proposed for the HFRP and considered in the prior EIR, new bridges and overlooks would be designed to minimize impacts on stream hydrology. Long-term and ongoing maintenance activities, as described in Chapter 3.0, "Project Description," would also be performed on the trails and trail crossings to reduce erosion to the extent possible and to repair weather-related damage that could contribute to erosion. Implementation of Mitigation Measures S5-1 and 11-1 would further reduce this impact to a **less-than-significant** level.

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| IMPACT 11-3 | Hydrology and Water Quality—Change in the Quality of Groundwater related to Installation of a Septic System. *Operation of septic systems was proposed as part of the 2010 analysis and is also proposed for the proposed Trails Expansion project. There is the potential that installing on-site septic systems could change the quality of the groundwater in the expansion area if the septic systems are not sited properly. Although suitable soils have been identified at each of the new parking areas, the potential still exists for changes in groundwater quality to occur if on-site wells are not properly constructed and maintained.* |
| Significance | *Potentially Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The previous park project included construction/reconstruction and operation of two septic systems to dispose of effluent by restroom facilities and group-use facilities (e.g., conference center, nature center, caretaker facilities). Although on-site soils were capable of supporting a new septic system within the southwest portion of the park (in the facility development zone), there was still the potential for the new or existing/reconstructed septic system (at Ranch House) to change groundwater quality. However, Mitigation Measure 11-2 reduced the potentially significant impact to **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

The project would include the construction and operation of 3 new septic systems to dispose of effluent generated by on-site restroom facilities in the new parking areas on the Harvego, at the Twilight Ride site, and at the Garden Bar entrance. As discussed in Chapter 5.0 "Soils, Geology, and Seismicity," soil data provided by the U.S. Geological Survey indicate limitations on the ability of project area soils to support the use of a standard septic system and absorption fields (i.e., leachfields), in which effluent from a septic tank is distributed into the soil through subsurface or perforated pipe. There is the potential that installing on-site septic systems could change the quality of the groundwater in the Harvego, Twilight Ride parcel and Garden Bar entrance if the septic systems are not sited and maintained properly. On-site soil testing completed at these sites in 2019 indicated soils in this portion of the expansion area are capable of supporting engineered septic systems that would be sized to

accommodate maximum daily use at those specific locations. In addition, the septic systems would be designed to have a 5-foot separation to groundwater or impermeable layer from leach lines, 150-foot setback from public wells, and 100-foot setback from any creeks to meet Central Valley Regional Water Control Board and Placer County Environmental Health Division standards (Placer County 2006).

Although on-site soils are capable of supporting engineered septic systems, there is still the potential for the new or existing septic systems to change groundwater quality if on-site wells are not properly installed and maintained. This impact would be potentially significant. Implementation of Mitigation Measure 11-2, which requires a well permit and would include associated conditions of approval to protect groundwater, would reduce this impact to a **less-than-significant** level.

The proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects on the quality of groundwater based on changes in the project, circumstances or new information.

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| IMPACT 11-4 | Hydrology and Water Quality—Change in the Supply and Availability of Groundwater through Withdrawals, Interception, or Loss of Recharge Capacity. *While soil compaction from constructed facilities could slightly impede recharge in localized areas, only approximately 13.5 acres of the 2,765+/- acres of HFRP Trails Expansion project would be developed with impervious surfaces. Installation of groundwater wells for uses related to the park and proposed project facilities could increase the demand for groundwater; however, project-related groundwater demand would not be substantial and is similar to yield rates found in private wells in the project vicinity. In addition, the demand for water is limited by the number of people permitted to visit under the reservation system. Proposed project-related water needs include water necessary for fire suppression but the 2009 water demand calculation report did not evaluate project requirements related to fire suppression. This impact would be potentially significant.* |
| Significance | *Potentially Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit; and Mitigation Measure 11-3: Calculate Water Demands for Fire Suppression.* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The HFRP Certified EIR found that construction activity would compact the soil and introduce pavement where none previously existed. These changes were identified as having the potential to affect groundwater recharge. However, because the amount of impervious surface was small relative to the amount of land preserved in the park and none of the property was designated as groundwater recharge zone, the 2010 HFRP Certified EIR found the impact to be **less than significant**.

The 2010 HFRP Certified EIR found that operation of HFRP would increase demand for potable water and required construction of a new groundwater well. The well was intended to serve the western parking area, drinking fountains, and restrooms. Water for irrigation of pasture would continue to be supplied by the Nevada Irrigation District canal and with the exception of reservation-based events, water supplies to meet project facility needs (most individuals visiting the park for dispersed passive recreation, mostly on the weekends) were estimated to be small, requiring a maximum day demand of 4.7 gpm. This estimated demand included the use of the ranch house area for overnight stays by groups for educational and/or meeting purposes, the expanded parking area, one maintenance yard and one caretaker residence. The County would require large event groups that would exceed the on-site water supplies to supply (i.e., carry in) potable water to serve the group as a term of the Temporary Event Permits and undergo separate environmental review.

It was expected that raw surface irrigation water would be the primary source of emergency fire suppression water that would be stored in above ground tanks, although any combination of surface irrigation water, water from stock ponds, and/or groundwater could be used to accommodate water demands for fire suppression. If groundwater was needed for fire suppression, this impact could have been potentially significant. Implementation of Mitigation Measures 11-2, which required a well permit, and 11-3, which required a water calculation for fire suppression demands, reduced this impact to a **less-than-significant** level.

### 2019 HFRP Trails Expansion Project Impact Analysis

Constructing access roads, parking areas, and the trail system would result in soil compaction, which has the potential to affect groundwater recharge. Parking areas and access roads would ultimately be paved with an impervious surface, which can also affect the potential for groundwater recharge. The amount of land to be covered by impervious surface to provide parking and access driveways is approximately 13.3 acres (parking and trailhead amenities) which is a small percentage relative to the approximately 2,765/- acres contained in the HFRP expansion area. Because the amount of impervious surfaces would be a very small percentage of the total land available for recharge, the Project would not have a significant impact on groundwater recharge and supply.

The project does not propose extensive water development. Water supplies to meet project facility needs would reflect typical patterns of recreation (i.e., most use by individuals visiting the expansion area for dispersed recreation, mostly on weekends). Three new groundwater wells, constructed under a Transient Non-community Water System Permit, would be installed to supply water for drinking fountains and restrooms, minimal landscaping, and the 12,000-gallon water tanks for emergency response at each parking area.

The reported maximum daily demand for groundwater at the existing Mears Place entrance was 917 gallons per day based on recorded meter readings when the existing well was actively producing. Maximum daily demand for each of the additional trailhead and parking areas are anticipated to be similar to those of the Mears Place entry. At minimum, Placer County requires a 1.0 gallon per minute yield for each new well unless a maximum daily demand calculation indicates a higher yield is necessary. The required well yield would be determined by a method approved by Placer County Environmental Health at the time the application for a domestic water supply permit is submitted. As part of this permit, the Health Department requires monitoring and testing to show new wells have capacity to meet the calculated demand and the water quality meets potable standards.

Water for fire suppression will be stored in 12,000-gallon tanks located either above or below ground at each of the parking lots. A significant impact to groundwater quality could occur if a groundwater well is used directly as a source of water for fire suppression. If public well(s) are used to supply emergency storage tanks, appropriate

backflow prevention devices would be used to prevent cross contamination of public potable water sources. Implementation of Mitigation Measures 11-2 and 11-3 would reduce this impact to a **less-than-significant** level.

The proposed trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to groundwater supply based on changes in the project, circumstances or new information.

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| IMPACT 11-5 | Hydrology and Water Quality—Exposure of People or Structures to Flooding. *Constructing park and proposed project facilities adjacent to or across Raccoon Creek or adjacent to the Bear River could expose people and structures to flooding. Facilities potentially exposed to flooding would be constructed to withstand scour and debris flow. No housing would be constructed in the floodplain, and access to the floodplain would be restricted in the event of a flood.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 HFRP Certified EIR indicated that operation of the HFRP would introduce visitors to the Raccoon Creek floodplain because segments of the trail system would run parallel to and cross over the creek. Improvements such as the three planned bridges were also identified as being subject to damage from flooding. However, the 2010 HFRP Certified EIR concluded that the bridges would be designed and constructed to span the 100-year floodplain, removable during flood periods, or withstand 100-year flood events. Existing low-flow crossings along existing roads would also be maintained across Raccoon Creek but these are intended to be submerged in water. No housing or other structures would be constructed within the floodplain and Raccoon Creek bridge crossings would be temporarily closed during major flood events. If extensive flooding were to occur, the County may close all or portions of the Park if it is deemed unsafe for Park users. This impact was found to be **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Visitors to the HFRP Trail Expansion would have access to the Raccoon Creek floodplain within the Taylor Ranch and Connectivity properties and the Bear River floodplain on the Harvego Preserve property. Portions of the trail system would run parallel to and cross over the creek, and the proposed project could also include access to fishing locations along Raccoon Creek. Bridges 4 and 5 would be constructed across Raccoon Creek and a tributary of Raccoon Creek that lies between HFRP and Taylor Ranch. Trail expansion would require spanning the creek with multiple culverts, box culverts, or a bridge. Future bridges would be similar to existing bridges (see Exhibit 3-9 in Chapter 3, “Project Description”). No housing or other structures would be constructed within the floodplain.

Bridge 4 is located at an elevation above the 3-foot minimum freeboard as measured from the 100 year peak water surface and placement would not alter the velocity or depth of the creek. Bridge 5 is planned as a premanufactured steel truss bridge approximately 100 feet long and 12 feet wide. It will be accessible to emergency services, County staff and County contracted staff vehicles, Placer Land Trust staff, pedestrians, bicyclists and equestrians. Concrete abutments will be constructed outside the high water mark on either side of Raccoon Creek, but the south abutment would be located within the 100-year floodplain. A hydrologic analysis for Raccoon Creek was conducted using the United States Army Corps of Engineers Hydrologic Engineering Center HEC-1 modeling program to evaluate the impact of the bridges during a 100 year storm event. The modeling showed that there was no difference in water depth between the 100 year water surface flow regime in the existing condition and post project condition. Water velocity is estimated to decrease by 0.1 ft/s which does not represent a substantial change from current conditions. Given that the introduction of bridges crossing Raccoon Creek would not influence water depth or velocity during a 100 year event, and that the southern abutment of Bridge 5 will be designed to withstand the water velocity and scour during 100-year storm events, **no impact** is anticipated (Carlton Engineering 2012).

Patrons visiting both the existing park and Trail Expansion areas could be exposed to flooding if they were near Raccoon Creek during a major (i.e., >100-year) flood event. However, the Raccoon Creek bridge crossings would be temporarily closed during such an event to reduce potential hazards. If extensive flooding were to occur, the County may close all or portions of the park and trail expansion areas if it is deemed unsafe for users.

Because no housing or other facilities would be constructed within the 100-year floodplain, Bridge 5 would be constructed to withstand flood events, and access would be restricted to Raccoon Creek in the event of a flood, this impact would be **less than significant**. The proposed HFRP Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

## 11.5 MITIGATION MEASURES

**Mitigation Measure S5-1 in Chapter 5.0, "Soils, Geology, and Seismicity":** Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required *(applies to Impacts 11-1 and 11-2)*

Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan *(applies to Impacts 11-1 and 11-2)*

The County shall prepare and submit Grading and Drainage Plans (Plans) and specifications (per the requirements of Section II of the Land Development Manual that are in effect at the time of submittal) for review and approval of work associated with structural design, hydrology associated with the bridges, and grading/drainage associated with the facility development zone. The Plans shall show all conditions affecting those facilities as well as pertinent topographical features. All existing and proposed utilities and easements, on-site and adjacent to those facilities, which may be affected by planned construction, shall be shown on the plans. The County shall pay plan check and inspection fees as applicable.

All proposed grading, drainage improvements, vegetation, tree impacts, and tree removal associated with the proposed trails expansion project, including access roads, parking areas, overlooks, bridges and trails shall be shown on the Plans and all work shall conform to provisions of the County Grading Ordinance

(Section 15.48, formerly Chapter 29, Placer County Code) and the Placer County Flood Control District's Stormwater Management Manual. No grading, clearing, or tree disturbance shall occur until the Plans are approved and any required temporary construction fencing has been installed and inspected by a member of the Design Review Committee. All cut/fill slopes included in the Plans shall be at 2:1 (horizontal:vertical) maximum unless a soils report supports a steeper slope and Design Review Committee concurs with said recommendation.

In addition, a drainage report in conformance with the requirements of Section 5 of the Land Development Manual and the Placer County Storm Water Management Manual that are in effect at the time of submittal shall be prepared and submitted with the Plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions, the effects of the improvements, all appropriate calculations, a watershed map, increases in downstream flows, proposed on- and off-site improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used both during construction and for long-term post-construction water quality protection. Best Management Practice (BMP) measures shall be provided to reduce erosion, water quality degradation, and prevent the discharge of pollutants to stormwater to the maximum extent practicable. In addition, routine maintenance shall be performed on trails expansion facilities to reduce erosion to the extent possible and to repair weather-related damage that could contribute to erosion.

Mitigation Measure 11-2: Implement Groundwater Protection through a Transient Non-community Water System Permit *(applies to Impacts 11-3 and 11-4)*

A HFRP Groundwater Systems Operation Procedure is in place for the existing well serving the restroom and facilities at the Mears Place parking area as well as the existing well at the ranch house. Pump performance and system leakage inspections are part of the regular maintenance routine under this procedure. One Park staff member is trained and tasked with water sampling at monthly intervals. The County employs qualified plumbers and electricians to correct any system failures. The Placer County Parks Division, which is a division of the Department of Public Works, operates the well and distribution system serving the public facilities at the existing Mears Place parking area under a Transient Non-community Water System Permit administered by the Placer County Environmental Health Department.

A separate permit would be obtained to include any additional wells that serve public facilities within the existing HFRP or trails expansion areas, and the conditions of the permit would be implemented to protect groundwater. The siting of any additional wells shall comply with the Placer County Water Well Construction Ordinance (Placer County Code Subchapter 8, effective July 19, 1990), and California Well Standards, Department of Water Resources Bulletin 74-90, June 1991.

A Groundwater Systems Operation Procedure or applicable equivalent would be prepared for any additional wells and adhered to as part of the permit conditions and ongoing operation. The objectives of the procedure shall be to ensure that:

- Water sources are not at risk of contamination from either tampering, pollutant discharge into the well head area, or latent groundwater contaminants.

- The responsible management agency has the technical capacity to operate the system to public health standards.
- The procedure would include the following elements:
- The minimum horizontal distance between any additional wells and any sewer line or storm drain main or lateral shall be 50 feet. The minimum horizontal distance between a public well and a septic tank shall be a minimum of 100 feet and between a public well and sewage disposal field shall be a minimum of 150 feet. If seepage pits are required, a minimum setback of 200 feet from a public well shall be maintained. Any other setbacks deemed necessary by Environmental Health will be met.
- A Bacteriological and Chemical Monitoring and Reporting Program, approved by the Placer County Environmental Health Division.
- An operations and maintenance program including inspection of the distribution system and well head assembly.
- An emergency operations and repair program.

If well-monitoring samples show that groundwater quality is deteriorating, prompt actions shall be initiated to remedy problems, as specified by the Placer County Environmental Health Department and/or Central Valley RWQCB. These actions could include but would not be limited to the use of injection wells or other recharge methods, closing the well and chlorinating the water, decommissioning the well and re-siting, or other water treatment alternatives such as construction of an on- or off-site water treatment plant. Some of these actions may be subject to additional CEQA analysis and other regulatory compliance. Implementation of Mitigation Measure 11-2 would reduce the potentially significant impact related to groundwater quality impairment to a less-than-significant level, because the Groundwater Systems Operation Procedure would enable the project applicant(s) to acquire the data and information necessary to manage the groundwater resource such that adverse impacts do not occur. This would enable detection of any negative changes to groundwater quality or quantity. If necessary, additional strategies to maintain the quality of groundwater at the project site and downgradient would be implemented following additional CEQA review.

Mitigation Measure 11-3: Calculate Water Demands for Fire Suppression (*applies to Impact 11-4).*

If groundwater is to be used for emergency fire suppression water, the County shall amend the April 7, 2009, Water Demand Calculation Report (Placer County 2009) to include fire suppression water requirements. If it is found that fire suppression requirements combined with water demands for other proposed uses is consistent with yields found in nearby private wells (1.3 to 7 gpm) then no further mitigation is required. If fire suppression requirement surpasses yields found in nearby private wells, one of the following shall be done:

- modify proposed uses at each well location to be consistent with available water that would not surpass similar yields of nearby wells;
- utilize Nevada Irrigation District raw irrigation water sources including but not limited to existing canals and ponds, new ponds, and/or irrigation fed underground storage tanks;
- fill storage tanks during off-peak periods when use is limited (i.e., winter and nighttime periods);

- import water needed to meet fire suppression requirements for emergency storage tanks via water trucks so that this water is not being pulled from the wells.

# 12.0 BIOLOGICAL RESOURCES

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) biological resources findings, describes the existing HFRP and proposed trail network expansion project area (project area) environmental setting and pertinent regulations, analyzes the environmental impacts from implementation of the Proposed Project on biological resources, and provides mitigation measures as needed to reduce those impacts.

## 12.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 HFRP CERTIFIED EIR

As discussed in Section 1.2, this SEIR will consider the impacts of the HFRP Trails Expansion and compare it against the analysis contained in the 2010 HFRP certified EIR. The purpose is to determine whether the Trail Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, result in a new impact not previously identified, or require application of mitigation measures that were previously found infeasible, and were therefore not adopted for the prior project, are currently feasible and should be incorporated into project approvals.

### 12.1.1 2010 HFRP CERTIFIED EIR – FINDINGS OF FACT

The following is a summary of the 2010 HFRP Certified EIR findings regarding impacts on biological resources.

- Several native fish species, including steelhead and fall-/late fall-run chinook salmon, use aquatic habitats in Raccoon Creek within and downstream of the park project. Although the project may have resulted in temporary or long-term degradation of aquatic habitats that support these fish species, implementation of avoidance, minimization and mitigation measures (i.e., implementing a grading and drainage plan, erosion and sediment control measures, riparian and aquatic habitat restoration, obtaining authorization for construction and operation activities from the Central Valley Regional Water Quality Control Board, and fulfilling all permit conditions, and other measures to protect aquatic habitats and the native fish community) reduced the impact to **less than significant**.

- The park site provides suitable habitat for California red-legged frogs, yellow-legged frogs, and northwestern pond turtles. Construction of park facilities and amenities near aquatic habitat (e.g., stock ponds, creeks) or across drainages could degrade or result in removal of habitat or result in physical injury to these special-status aquatic species. Although this would be a potentially significant impact, implementation of avoidance, minimization and mitigation measures to protect the California red-legged frog, foothill yellow-legged frog, and northwestern pond turtle, including worker awareness training and active project area oversight by a USFWS-approved/qualified biologist, reduced the impact to **less than significant**.

- Removal of trees or vegetation during park construction of roads and trails and trail maintenance could temporarily disturb golden eagle nests, or destroy raptor and migratory bird nests with the potential loss of their eggs or young. Dens of ringtails, a special-status mammal, could also be adversely affected by construction or trail maintenance. Implementation of mitigation measures to protect raptors and other nesting birds and ringtails, reduced the potentially significant impacts to **less than significant**.

- Limited habitat for Townsend's big-eared bats occur in the park site and construction of trails, bridges, and structures could disturb their maternity or winter roosts. However, implementation of avoidance, minimization and mitigation measures reduced the impact to **less than significant**.

- Populations of Brandegee's clarkia were documented in the Spears Ranch portion of the park and construction of park facilities and amenities, including parking areas and fuel breaks, and road improvements along Garden Bar Road could result in a potentially significant impact to the habitat. Implementation of avoidance, minimization and mitigation measures reduced this impact to **less than significant**.

- Native oak trees are protected under the Placer County Tree Ordinance and SB 1134, and removal of native oaks is a potentially significant impact. The County would mitigate oak tree loss by paying in-lieu fees to compensate for loss of any native trees larger than 6 inches diameter-at-breast-height (dbh). With implementation of this mitigation measure the impact was considered to be **less than significant**.

- A wetland delineation and preliminary jurisdictional determination identified approximately 31.5 acres of potentially jurisdictional waters of the U.S. and waters of the state on the Spears Ranch property and along Garden Bar Road. Although the majority of this area would be avoided and not affected by park project implementation, installation of stream crossings and bridges, viewing boardwalks, and trail construction in the project area, and road improvements along Garden Bar Road could result in the fill of jurisdictional waters of the U.S. and waters of the state, including wetlands. Although a potentially significant impact, the implementation of avoidance, minimization, and mitigation measures reduced the impact to **less than significant**.

### 12.1.2 HFRP Mitigation Measures Adopted by the County in 2010

Implementation of the following mitigation measures, which were adopted by Placer County when the HFRP EIR was certified in 2010, reduced impacts of the project on biological resources to less than significant.

Mitigation Measure 5-1: Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Boards and Implement Erosion and Sediment Control Measures as Required.

A: Implement Stormwater BMPs.

Water quality BMPs shall be designed according to the Stormwater Best Management Practice Handbooks for Construction, for New Development and Redevelopment (CSQA 2003).

Storm drainage from on- and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, or filters for entrapment of sediment, debris and oils/greases, and other identified pollutants, as approved by the County. BMPs shall be designed at a minimum in accordance with the Guidance Document for Volume and Flow-Based Sizing of Permanent Post-Construction Best Management Practices for Stormwater Quality Protection (Placer Regional Stormwater Coordination Group 2005).

No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by appropriate regulatory authorities.

- All BMPs shall be maintained as required to ensure effectiveness.

B: Obtain RWQCB Permit and Implement Construction BMPs.

Projects with ground disturbance exceeding 1 acre that are subject to construction storm water quality permit requirements of the National Pollutant Discharge Elimination System (NPDES) program shall obtain such permit from the Regional Water Quality Control Board and shall obtain evidence of a state-issued Waste Discharge Identification number or filing of a Notice of Intent and fees prior to start of construction.

This project is located within the area covered by the County's municipal stormwater quality permit, pursuant to the NPDES Phase II program. Project-related storm water discharges are subject to all applicable requirements of said permit. BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) storm water runoff in accordance with "Attachment 4" of Placer County's NPDES Municipal Stormwater Permit (State Water Resources Control Board NPDES General Permit No. CAS000004).

Construction (temporary) BMPs for the project include, but are not limited to:

- Use temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils;
- Store materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water;
- Use water for dust control;
- Construct sediment control basins;
- Regular sweeping of entry and exit areas to minimize off-site sediment transport;
- Install traps, filters, or other devices at drop inlets to prevent contaminants from entering storm drains; and
- Use barriers, such as straw bales, perimeter silt fences, or placement of hay bales, to minimize the amount of uncontrolled runoff that could enter drains or surface water.

C: Implement Post-Development BMPs.

Post-development (permanent) BMPs for the project include, but are not limited to:

- The project will have an effective system of erosion and sedimentation control, consisting of vegetative and structural measures and management practices, to reduce the damage of erosion and costly clean-up procedures.
- Following trail construction, wattles/fiber rolls and/or gravel-filled bags will remain in place until permanent stabilization measures have proven successful.

- For the duration of the project, storm drainage within ditch systems associated with switchback construction will have stabilized ditch protection. This will consist of filter fabric, mulch, or a 3-inch gravel base.

- Plan development to fit the particular topography, soils, waterways, and natural vegetation of the site, to avoid the creation of erosion problems on the site.

- Reduce erosion hazards and runoff volumes and velocity by limiting the length and steepness of slopes. Slopes subject to erosion should not be steeper than 2:1 horizontal to vertical.

- Break up long steep slopes by benching, terracing, or diversion structures.

- Use existing vegetation to control erosion to (a) shield the soil surface from rain, (b) increase infiltration, (c) reduce velocity of runoff and (d) hold soil in place and act as a filter.

- Time the project so that grading and construction occur during the normal dry season to the extent feasible.

The County shall also consult with the RWQCB to acquire the appropriate regulatory approvals that may be necessary to obtain Section 401 water quality certification.

Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan.

- The County shall prepare and submit Grading and Drainage Plans (Plans) and specifications (per the requirements of Section II of the Land Development Manual that are in effect at the time of submittal) for review and approval of work associated with structural design, hydrology associated with the bridges, and grading/drainage associated with the facility development zone. The Plans shall show all conditions affecting those facilities as well as pertinent topographical features. All existing and proposed utilities and easements, on-site and adjacent to those facilities, which may be affected by planned construction, shall be shown on the plans. The County Department shall pay plan check and inspection fees as applicable.

- All proposed grading, drainage improvements, vegetation, tree impacts, and tree removal associated with the Park access road, parking areas, and bridges shall be shown on the Plans and all work shall conform to provisions of the County Grading Ordinance (Section 15.48, formerly Chapter 29, Placer County Code) and the Placer County Flood Control District's Stormwater Management Manual. No grading, clearing, or tree disturbance shall occur until the Plans are approved and any required temporary construction fencing has been installed and inspected by a member of the Design Review Committee. All cut/fill slopes included in the Plans shall be at 2:1 (horizontal:vertical) maximum unless a soils report supports a steeper slope and Design Review Committee concurs with said recommendation.

- In addition, a drainage report in conformance with the requirements of Section 5 of the Land Development Manual and the Placer County Storm Water Management Manual that are in effect at the time of submittal, shall be prepared and submitted with the Plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing

conditions, the effects of the improvements, all appropriate calculations, a watershed map, increases in downstream flows, proposed on- and off-site improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used both during construction and for long-term post-construction water quality protection. Best Management Practice (BMP) measures shall be provided to reduce erosion, water quality degradation, and prevent the discharge of pollutants to stormwater to the maximum extent practicable.

- Although the facility development zone is generally in the southwestern portion of the Park, including the previously disturbed area surrounding the existing ranch house and the proposed parking areas, the exact location of individual facilities could vary within this zone. Therefore, it is not practical to prepare the drainage plan prior to project approval. In addition, routine maintenance shall be performed on Park facilities to reduce erosion to the extent possible and to repair weather-related damage that could contribute to erosion.

Mitigation Measure 12-1: Implement Measures to Protect Aquatic Habitats and the Native Fish Community. The County and its primary construction contractor shall implement the following measures to reduce impacts on aquatic habitats and the native fish community in the project area:

- All in-water construction activities shall be conducted during months when sensitive fish species are less likely to be present or less susceptible to disturbance (i.e., April 15–October 15 or as directed by DFG).

- The County shall obtain and implement the conditions of a streambed alteration agreement. DFG shall be consulted regarding potential disturbance to fish habitat, including SRA habitat, as part of the process for obtaining a streambed alteration agreement, pursuant to Section 1602 of the California Fish and Game Code. Affected habitats shall be replaced and/or rehabilitated to the extent feasible and practicable. The acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a “no-net-loss” basis in accordance with DFG regulations and as specified in the streambed alteration agreement. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to DFG. Minimization and compensation measures adopted through the permitting process shall be implemented.

- The County shall consult and coordinate with DFG to develop regulations and limits for angling in Coon Creek, restrict angling activities while adult steelhead and salmon are present, and coordinate on enforcement of the area to monitor and regulate fishing activities.

Mitigation Measure 12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State.

- Prior to construction, the County shall obtain a verified wetland delineation from USACE. Based on the results of the verified delineation, the County shall commit to replace, restore, or enhance on a “no net loss” basis, in accordance with USACE and the Central Valley RWQCB, the acreage of all waters of the United States and wetland habitats that would be affected by implementation of the project. Wetland restoration, enhancement, and/or replacement shall be at a location and by methods

agreeable to USACE, DFG, and the Central Valley RWQCB, as determined during the Sections 404, 1602, and 401 permitting processes.

- The County shall either obtain credits from an approved mitigation bank, at a rate determined by USACE, to replace lost wetland values at a 1:1 ratio, or shall prepare and submit a wetland mitigation and monitoring plan to USACE for the creation of jurisdictional waters at a mitigation ratio no less than 1 acre of created water of the United States, including wetlands, for each acre filled. The mitigation plans shall demonstrate how the USACE criteria for jurisdictional waters will be met through implementation. The wetland mitigation and monitoring plan shall include the following:

  - target areas for creation,
  - a complete biological assessment of the existing resources on the target areas,
  - specific creation and restoration plans for each target area,
  - performance standards for success that will illustrate that the compensation ratios are met, and
  - a monitoring plan, including schedule and annual report format.

- The County shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before implementation of any construction activities associated with the proposed project.

  - Authorization for the fill of jurisdictional waters of the United States shall be secured from USACE through the CWA Section 404 permitting process before any fill is placed in jurisdictional wetlands. Timing of compliance with the specific conditions of the 404 permit shall be in accordance with conditions specified by USACE as part of permit issuance. In its final stage and once approved by USACE, this mitigation plan shall detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands function and services in the project vicinity. As required by Section 404, approval and implementation of the wetland mitigation and monitoring plan shall ensure no net loss of jurisdictional waters of the United States, including jurisdictional wetlands.

  - Water quality certification pursuant to Section 401 of the CWA is required as a condition of issuance of the 404 permit. Before construction in any areas containing wetland features, the County shall obtain water quality certification for the project. Any measures required as part of the issuance of water quality certification shall be implemented.

Mitigation Measure 12-3: Implement Measures to Protect California Red-Legged Frog. The County and its primary construction contractor shall implement the following measures to reduce impacts on California red-legged frogs:

- Before any work in or within 200 feet of aquatic habitat, the County shall determine whether aquatic habitat is occupied by California red-legged frog, in consultation with USFWS. This determination may be supported by a habitat assessment for California red-legged frog prepared according to USFWS guidelines (USFWS 2006) as revised, and focused surveys if recommended by USFWS. If aquatic habitat in the project area is not occupied by California red-legged frog, there would be no impacts on this species and no further mitigation would be required.

- If aquatic habitat in the project area is occupied by California red-legged frog, the County shall minimize impacts on California red-legged frog by implementing the following measures:

  - Worker awareness training shall be provided to construction crews working in California red-legged frog habitat. At a minimum, the training shall include a description of California red-legged frog and its habitat and their importance, general measures that are being implemented to conserve California red-legged frog as such measures relate to the project, and the boundaries within which construction activities shall occur.

  - Suitable California red-legged frog habitat shall be surveyed 2 weeks before the start of construction activities. If California red-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with regulatory agency approval. If California red-legged frogs are not identified, construction may proceed.

  - Exclusionary fencing (i.e., silt fences) shall be installed no more than 200 feet around all areas that are within or adjacent to California red-legged frog habitat.

  - A USFWS-approved biologist shall be present at active project areas until the removal of California red-legged frog, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.

  - If any work area will be temporally dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.

  - Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the best management practices (BMPs) in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required."

The County shall compensate for permanently lost habitat by developing and/or implementing a habitat creation/restoration plan for California red-legged frog. This plan shall, at a minimum, compensate for lost habitat on an acre-for-acre basis, and it shall include verifiable performance criteria and remediation measures developed with USFWS during the Section 7 consultation process.

Mitigation Measure 12-4: Implement Measures to Protect Foothill Yellow-Legged Frog and Northwestern Pond Turtle. The County and its contractor shall implement the following measures to reduce impacts on foothill yellow-legged frogs and northwestern pond turtles:

- Construction of foot bridges and trails across smaller drainages shall occur when the drainages are dry, to the extent feasible.

- Before any work in Coon Creek, the County shall determine, in consultation with DFG, whether aquatic habitat at work sites would support foothill yellow-legged frog and/or northwestern pond

turtle habitat. If no aquatic habitat for foothill yellow-legged frog or northwestern pond turtle habitat occurs at a work site, there would be no impacts on these species and no further mitigation is required.

- If aquatic habitat for foothill yellow-legged frog and/or northwestern pond turtle is present at work sites, the County shall minimize impacts on these species by implementing the following measures:

  - Worker awareness training shall be provided to construction crews working in foothill yellow-legged frog and northwestern pond turtle habitat. At a minimum, the training shall include a description of foothill yellow-legged frog and northwestern pond turtle and their habitats and their importance, general measures that are being implemented to conserve foothill yellow-legged frog and northwestern pond turtle as such measures relate to the project, and the boundaries within which construction activities shall occur.

  - Suitable foothill yellow-legged frog and northwestern pond turtle aquatic habitat shall be surveyed within 2 weeks before the start of construction activities. If northwestern pond turtles or foothill yellow-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with DFG approval. If neither northwestern pond turtle nor foothill yellow-legged frog is identified, construction may proceed.

  - A qualified biologist holding the appropriate permits shall be present at active work sites until the removal of foothill yellow-legged frog and northwestern pond turtle, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.

  - If any work site will be temporally dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.

  - Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the BMPs in Mitigation Measure 11-1, “Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required.”

Mitigation Measure 12-5: Implement Measures to Protect Raptors and Other Nesting Birds. The County and its contractors shall implement the following measures to reduce impacts on raptors and other nesting birds:

- If trees larger than 6 inches dbh must be removed, then the following mitigation measures shall be implemented:

  - Tree removal shall be completed in accordance with the Placer County Tree Ordinance.

- For any construction activities that take place between March 1 and August 31 (raptor breeding season), preconstruction or pre-event surveys for active raptor nests shall be conducted no more than

2 weeks prior to the start of the activity. If no active raptor nests are found, no further mitigation is required. If any active raptor nests are identified during surveys, then impacts on active raptor nests shall be avoided by establishing minimum buffers of 500 feet (0.25 mile for golden eagle) until young have fledged or the nest is otherwise no longer active. These buffers may be reduced if a qualified biologist determines that such a reduction would not risk failure of a nest. If active golden eagle nests are located within 0.25-mile of public trails or roads, the County shall:

- Notify DFG of the nest; and
- Cooperate with DFG in implementation of measures to protect the nests during nesting.

Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat. The County and its contractor shall implement the following measures to protect Townsend's big-eared bat and ringtail:

- A qualified biologist shall conduct pre-construction surveys to identify bat hibernation roost and maternity sites and potential ringtail den sites in suitable habitat within 100 feet of proposed trails (i.e., those areas directly affected by trail construction). For bats, roost habitat surveys should focus on locations of mine tunnels, caves, abandoned buildings, and rock crevices; for ringtail, potential den site surveys should focus on locations of trees 6 inches dbh or greater in riparian areas.

- The County shall avoid locating trails within 100 feet of bat roosts and ringtail dens. If avoidance is not possible, the County shall survey those locations to determine if they are occupied by the target species. If sites are not occupied, they may be sealed or removed in accordance with the following specifications:

  - Potential Townsend's big-eared bat nursery roosts may be sealed from September through March, before the nursery season. The County shall verify that the potential roost is not occupied immediately before sealing it.

  - Potential Townsend's big-eared bat hibernation roosts may be sealed from April through October, prior to before the hibernation season. The County shall verify that the potential roost is not occupied immediately before sealing it.

  - Potential ringtail den sites may be removed only from September through April. The County shall verify that the potential den is not occupied immediately before sealing it.

Mitigation Measure 12-7: Implement Measures to Protect Brandegee's Clarkia. The County and its primary contractor shall implement the following measures to protect Brandegee's clarkia populations:

The locations of known Brandegee's clarkia occurrences in the project area shall be clearly marked for avoidance by construction crews before the commencement of project construction activities.

- If construction activities cannot avoid Brandegee's clarkia occurrences, then prior to commencement of construction, the following measures shall be implemented:

- Information on Brandegee's clarkia occurrences in the project area shall be recorded on California Native Species Field Survey Forms and submitted to the CNDDB.

- Seed from Brandegee's clarkia populations shall be collected and redistributed into suitable habitat by a qualified botanist. Seed shall be distributed over an area twice the size of the affected area. Because Brandegee's clarkia is an annual plant that is tolerant of some disturbance, this measure will allow the perpetuity of populations in the project area and minimize the impact of project activities.

Mitigation Measure 12-8: Protect Oak Woodland Habitat.

If removal of native trees larger than 6 inches dbh is required during construction of the proposed project, the County shall compensate for removal of those trees by paying in-lieu fees into the County approved oak woodland preservation fund as stipulated in the Placer County Tree Ordinance and in consultation with a certified arborist.

## 12.2 2019 HFRP TRAILS EXPANSION PROJECT - ENVIRONMENTAL SETTING

This Subsequent EIR describes the physical environmental conditions of the proposed HFRP expansion. See Chapter 12.0 "Biology" of the 2010 HFRP EIR for information about the existing park.

### 12.2.1 METHODS

This section describes the pre-field research and survey methods used to assess the biological resources of the project area.

#### PRE-FIELD RESEARCH

AECOM biologists searched the following sources for records of special-status plants and wildlife occurring within a nine-quadrangle area containing and surrounding the study area: California Natural Diversity Database (CNDDB 2017), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (Inventory) (CNPS 2017), and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation project planning tool (USFWS 2017). The Gold Hill U.S. Geological Survey 7.5 minute quadrangle and its eight surrounding quads—Rocklin, Pilot Hill, Auburn, Lake Combie, Wolf, Lincoln, Roseville, and Camp Far West—were included in the database record searches.

In addition to the Hidden Falls EIR, AECOM biologists reviewed other environmental documents that addressed biological resources in the project area. These documents included, but are not limited to: *Administrative Draft Special-Status Plant Report for the Hidden Falls Regional Park Project* (Placer County 2007), *Hidden Falls Regional Park Preliminary Delineation of Waters of the United States, Including Wetlands* (Placer County 2008) and *Results of Special-Status Plants Surveys for the Placer Land Trust Connectivity Study Area* (Placer County 2009). AECOM biologists also reviewed the following background documents from the Placer Land Trust (PLT): *2011–2013 Management Plan for Harvego Preserve Bear River Preserve* (PLT 2011), *Wetland Delineation Report for Bruin Ranch* (PLT 2010), *Harvego Preserve Bear River Preserve Inventory and Improved Forest Management Activities Plan* (PLT 2012), *Management Plan for Kotomyan Big Hill Preserve* (PLT 2007a), *Management Plan for Liberty Ranch Big Hill Preserve (PLT 2007b), Baseline Documentation Report for Liberty Ranch Big Hill Preserve* (PLT 2007c), *Baseline Documentation Report for Outman Big Hill Preserv*e (PLT 2013), *Baseline Documentation Report for Taylor Ranch (PLT 2007d), Management Plan for Taylor Ranch* (PLT 2007e).

## FIELD SURVEYS

AECOM biologists Tammie Beyerl and Pamela Brillante conducted surveys in the study area on December 6, 7, 13, and 14, 2016, and May 30 and 31 and June 1, 2017. AECOM biologists Petra Unger and Kristin Asmus conducted focused special-status plant surveys in the newly added Twilight Parcel on May 15, 2018. Exhibit 12-1 shows the study area that was surveyed for biological resources. These pedestrian surveys covered the proposed trail system alignment plus 50 feet on either side of the trail system alignment, stream crossing locations, staging areas, and parking areas. In locations where no trail existed, the trail width was assumed to be 5 feet, and in locations where the trail would coincide with an existing road, the trail width was assumed to be the width of the road. The protocols for the special-status plant surveys followed CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CCDFW 2009) and U.S. Fish and Wildlife Service's (USFWS) *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000).

Habitats in the study area were assessed to determine their potential to support special-status wildlife species at or near the study area. The biologists surveyed the forest canopy and trees at and within 200 feet from the study area boundaries to search for suitable raptor and passerine nesting sites. Habitat for special-status amphibians and reptiles was surveyed by visually scanning the water features that cross the study area for appropriate water depth and flow rate, the substrates along the bottom of the water features, bank structure, and vegetation in the water features and along the banks. The habitat survey for meso-carnivores such as foxes and ringtails was focused on an assessment of potential burrow or denning habitat within the study area.

Wetland delineations were conducted in the study area on December 6–7 and 13–14, 2016, and May 27, May 30–31, and June 1, 2017, by AECOM biologists Pamela Brillante, Tammie Beyerl, and Kristin Asmus. Wetland delineations at the Twilight Parcel were conducted on May 15, 2018 by AECOM biologists Petra Unger and Kristin Asmus. The USACE 1987 wetlands delineation manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008a) were used to delineate wetlands potentially subject to USACE jurisdiction under Section 404 of the Clean Water Act (CWA).

Appendix I, the Biological Resources Appendix, provides the detailed descriptions of the methods and results for the botanical and wildlife surveys and wetland delineations that were conducted in the project area, and includes the following studies:

- Placer County. 2017 (September). *Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project*. Placer County Public Works and Facilities, Parks Division, California. Auburn, CA. Prepared by AECOM, Sacramento, CA.

- Placer County. 2017 (September). *Habitat Assessment for Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project*. Placer County Public Works and Facilities, Parks Division, California. Auburn, CA. Prepared by AECOM, Sacramento, CA.

- Placer County. 2018 (March*). Delineation of Wetlands and Other Waters of the United States Hidden Falls Regional Park Trail Network Expansion Project*. Placer County Public Works and Facilities, Parks Division, California. Auburn, CA. Prepared by AECOM, Sacramento, CA.

- Placer County. 2018 (October). *Addendum to Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project—Twilight Parcel*. Placer County Public Works and Facilities, Parks Division, California. Auburn, CA. Prepared by AECOM, Sacramento, CA.
- Placer County. 2018 (October). *Addendum to Habitat Assessment for Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project—Twilight Parcel*. Placer County Public Works and Facilities, Parks Division, California. Auburn, CA. Prepared by AECOM, Sacramento, CA.
- Placer County. 2018 (December). *Addendum to Wetland Delineation Report for the Hidden Falls Regional Park Trail Expansion Project—Twilight Ride Property*. Placer County Public Works and Facilities, Parks Division, California. Auburn, CA. Prepared by AECOM, Sacramento, CA.

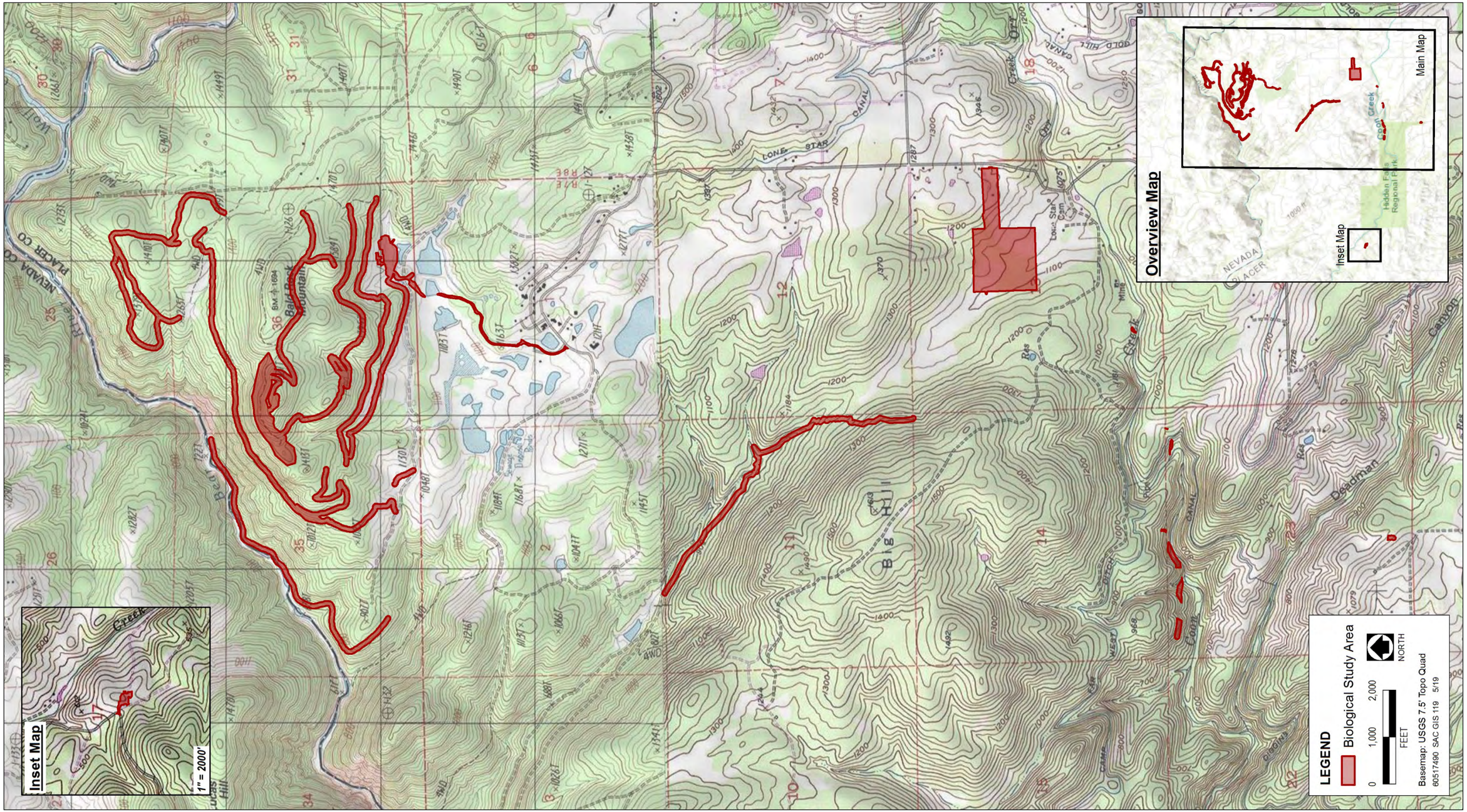

## 2019 Survey Results

### Vegetation

Vegetation communities in the project area are generally the same as those described in Section 12.1.1 in the 2010 HFRP EIR. The project area is composed of gentle rolling to steep hills that are covered by oak woodlands interspersed with annual grassland and riparian corridors. Upland oak woodland can be divided into three types of woodland communities based on the dominant oak species: interior live oak woodland, blue oak woodland, and black oak woodland. Specific habitat types found in the project area are blue oak woodlands interspersed with blue oak foothill pine woodland, valley foothill riparian woodland, and mixed chaparral. Annual grasslands are present in the openings of the woodland and chaparral communities. Additional information about the project area vegetation communities is provided below. Exhibit 12-2 shows the location of project area vegetation communities and land cover types, and Table 12-1 summarizes the acreages of vegetation communities and land cover types in the project area.

**Table 12-1. Hidden Falls Trails Expansion Vegetation Community/Land Cover Acreages**

| Vegetation Communities/Land Cover Types | Area (acres) |
|---|---|
| Annual Grassland | 12.65 |
| Barren (Rock outcrops/cliffs) | 3.73 |
| Blue Oak Woodland | 445.04 |
| Foothill Hardwood Woodland | 860.25 |
| Fresh Emergent Wetland | 2.25 |
| Lacustrine | 1.47 |
| Oak - Foothill Pine Woodland | 1280.1 |
| Oak Woodland - Savanna | 141.97 |
| Riverine | 5.44 |
| Stock Ponds | 1.54 |
| Valley Foothill Riparian Woodland | 11.02 |
| **Grand Total** | **2765.46** |




Source: Placer County 2017 and 2019

**Exhibit 12-1. Biological Study Area**

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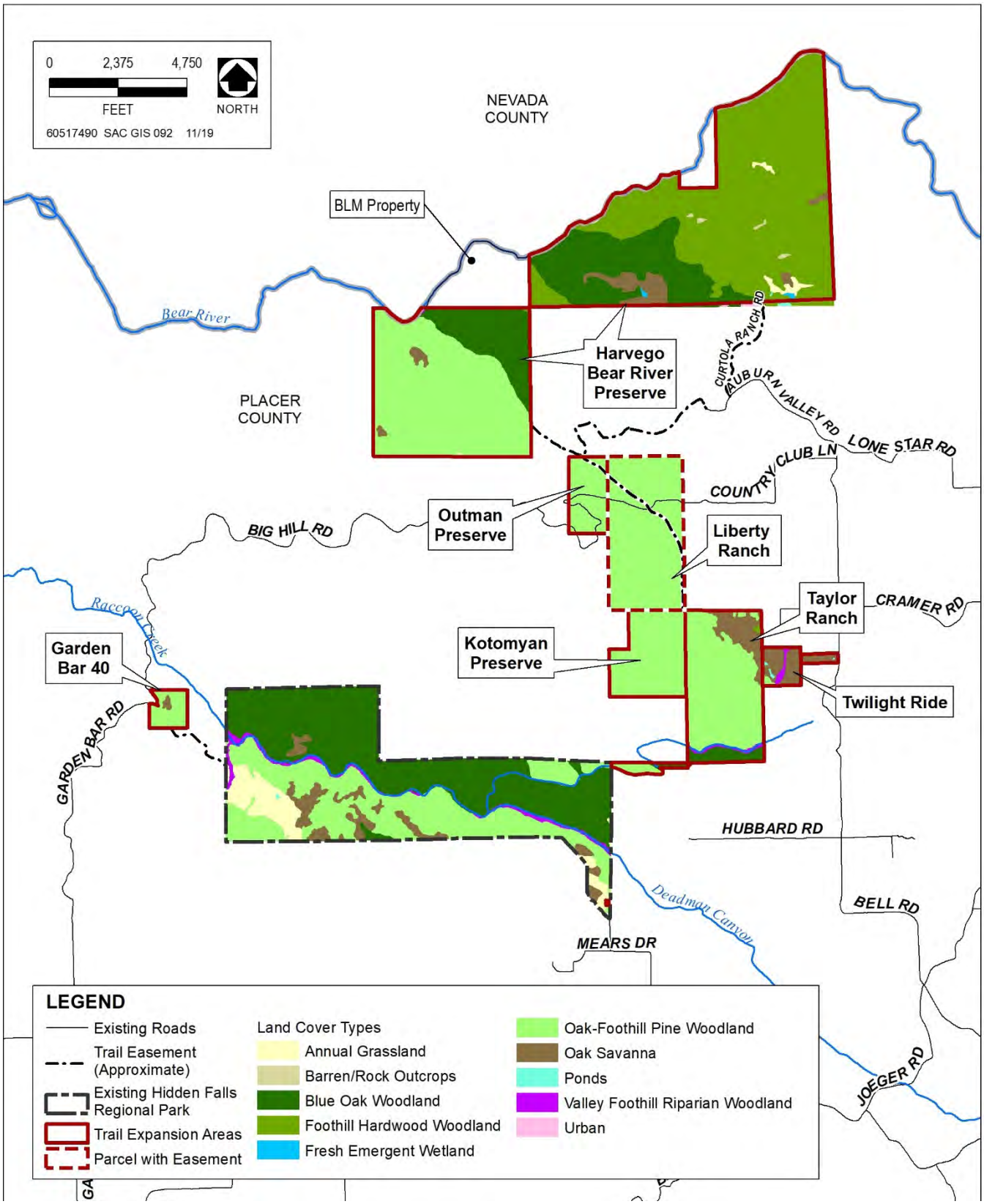



Source: Placer County 2019

**Exhibit 12-2. Vegetation Communities and Land Cover Types**

### Foothill Hardwood Woodland

The foothill hardwood woodland community is the second largest vegetative community found throughout the expansion area. This community is composed of four distinct subtypes; the blue oak woodland, the valley oak woodland, interior live oak woodland, and mixed oak woodland. Mixed oak woodland is categorized by the lack of one single dominant oak species and is not further discussed. Blue oak woodland and interior live oak woodland often occur intermixed at elevations of 300 feet or above. Valley Oak Woodland is composed of large valley oaks (*Quercus lobata*) co-occurring with blue oaks (*Q. douglasii*) away from watercourses. The herbaceous layer is composed of nonnative annual grasses and forbs, the shrub layer is commonly composed of poison-oak (*Toxicodendron diversilobum*), California coffeeberry (*Frangula californica*), toyon (*Heteromeles arbutifolia*), and Himalayan blackberry (*Rubus armeniacus*). Interior live oak woodland is dominated by interior live oak (*Q. wislizenii*) trees with a herbaceous understory layer of nonnative shade tolerant species such as bristly dogtail grass (*Cynosurus echinatus*), wild parsley (*Torilis nodosa*), chickweed (*Stellaria media*), Italian thistle (*Carduus pycnocephalus*). Native species commonly found in the interior live oak woodland include: blue wildrye (*Elymus glaucus*), miner's lettuce (*Claytonia* sp.), foothill sanicle (*Sanicula* sp.), hairy wood rush (*Luzula comosa*), and western buttercup (*Ranunculus occidentalis*).

### Blue Oak Woodland

Blue oak woodland is found throughout the project area. Blue oak, with generally sparse shrub layers consisting of poison oak, chaparral honeysuckle (*Lonicera interrupta*), and holly-leaf redberry (*Rhamnus ilicifolia*) dominates the project area that is generally restricted to rock outcrops. The herbaceous layer in the blue oak woodland is composed of nonnative annual grasses and seasonal forbs, such as bromes (*Bromus diandrus*, *B. hordeaceus*), wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), medusahead (*Elymus caput-medusae*), cut-leaved geranium (*Geranium dissectum*), and Italian thistle. There are also some widely scattered native perennial grasses.

### Blue Oak-Foothill Pine Woodland

Blue oak–foothill pine woodland is also common throughout the project area. The dominant species in these stands are blue oaks, interior live oak, foothill pine (*Pinus sabiniana*), black oak (*Q. kelloggii*), and canyon live oak (*Q. chrysolepis*). Some pockets of this habitat also include ponderosa pine (*Pinus ponderosa*). The understory species include shrubs such as poison oak, California buckeye (*Aesculus californica*), toyon, and hoary coffeeberry (*Frangula californica* ssp. *tomentella*). Similar to blue oak woodland, the herbaceous layer is continuous and dense, with exposed soil generally limited to areas of disturbance from grazing or farm equipment; the layer is composed of annual grasses and forbs similar to those in the blue oak woodland habitat. This habitat type also has some open areas, with an herbaceous layer that is less dense than it is in blue oak woodland and with a larger number of native species.

### Annual Grassland

Annual grassland habitat in the project area is dominated by annual grasses such as those found in the herbaceous layer of blue oak and blue oak–foothill pine woodland. This habitat is also dominated by ripgut brome (*Bromus diandrus*), and by native and nonnative forbs: subterranean clover (*Trifolium subterraneum*), broadleaf filaree (*Erodium botrys*) and red-stem filaree (*E. cicutarium*), rose clover (*T. hirtum*), stalked popcorn flower

(*Plagiobothrys stipitatus* var. *micranthus*), johnny-tuck (*Triphysaria eriantha*), and Douglas' violet (*Viola douglasii*). Purple needle grass (*Stipa pulchra*) (NL) and blue wild rye are the dominant native perennial grasses.

#### Oak Savanna

Oak savanna is dominated by valley oak, blue oak and Oregon oak (*Q. garryana*) occurring in deep, alluvial soils. The canopy cover typically ranges from 10 to 30 percent with a poorly developed herbaceous understory. If present, the herbaceous understory is composed of mostly non-native grasses and forbs, with native wildflowers and grasses occurring in less disturbed areas.

#### Valley Foothill Riparian Woodland

Valley foothill riparian habitat is found within the project area along Raccoon Creek, and other smaller tributaries. This habitat is dominated by an overstory of valley oak, white alder (*Alnus rhombifolia*), red willow (*Salix laevigata*), and interior live oak. Understory dominants include patches of Himalayan blackberry, poison oak, buttonwillow (*Cephalanthus occidentalis*), and Spanish broom (*Spartium junceum*). Locally dominant species include arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), wild grape (*Vitis californicus*), giant horsetail (*Equisetum telmateia* ssp. *braunii*), skunk bush (*Rhus aromatica*), rushes (*Juncus* sp.), and sedges (*Carex* sp.). Deer grass (*Muhlenbergia rigens*) and California melic (*Melica californica*) are the dominant native perennial grasses.

### MIXED CHAPARRAL

Mixed chaparral habitat within the project area is limited. Dominant species found within this habitat type include poison oak, chaparral honeysuckle, holly-leaf redberry, toyon, buckbrush (*Ceanothus cuneatus*), and coffeeberries. Other species observed include common herbaceous species such as gooseberries (*Ribes* sp.) and serviceberries (*Amelanchier* sp.), Chinese-houses (*Collinsia heterophylla*), foothill collinsia (*Collinsia sparsiflora* var. *collina*), sessile wood-rush (*Luzula comosa* var. *subsessilis*), Henderson's shooting-star (*Dodecatheon hendersonii*), and California melic.

### BARREN/ROCK OUTCROPS

This land cover type is characterized as rock formations devoid of vegetation, or any habitat with less than 2% of total vegetation cover by herbaceous species, and less than 10% cover by a tree or shrub species (Parker and Maytas 1981). Rock outcrops are an important component of the blue oak woodland and blue oak foothill pine woodland habitats. Plant species associated with the rock outcrops include coyote-mint (*Monardella* sp.), small-flowered miner's lettuce (*Claytonia parviflora* ssp. *parviflora*), Bolander's woodlandstar (*Lithophragma bolanderi*), woodland threadstem (*Pterostegia drymarioides*), Cliff brake ferns (*Pellaea* sp.), canyon dudleya (*Dudleya cymosa*), and phacelias (*Phacelia* sp.).

## 12.2.2 WILDLIFE HABITAT

The project area is within the Raccoon Creek and Bear River watersheds. Raccoon Creek flows across Taylor Ranch and into HFRP and crosses the project area in several locations. The Bear River abuts most of the northern boundary of the Harvego Preserve. Raccoon Creek within the west end of the project area is a braided channel with vegetated in-stream gravel bars. It is confined by cut banks on a gentle slope and is dominated by a boulder and cobble substrate. Raccoon Creek crosses the project area again farther east; in this area, Raccoon Creek is

dominated by a bedrock channel with several cascades. The segment of Raccoon Creek at the easternmost proposed bridge (Bridge #5 – See Figure 3-9.) crossing is flat and confined by a gentle slope on the north side and a moderate slope on the south side. The creek contains a main channel and a side channel dominated by boulders and cobble and separated by a cobble bar. Outside the project area and downstream of the proposed bridge this segment of the creek plunges approximately 75 feet in elevation. The Bear River within the project area is characterized by steep slopes with dense vegetation and a channel bed composed largely of boulder and bedrock substrate. The project area also has several perennial, intermittent, and ephemeral drainages that are tributary to Raccoon Creek and Bear River. The drainages within the project area vary in characteristics: some have gently sloping banks, but others have moderate to moderately steep cut banks. The drainages are generally dominated by cobble and boulder substrates, but some drainages mostly contain a bedrock channel. In addition, some drainages contain cascades, pools, braided channels, and/or cobble bars. Riparian and sometimes wetland vegetation occurs along most of the drainages within the project area, including Raccoon Creek, and some drainages have riparian vegetation rooted within the stream.

The project area supports suitable habitat for a wide variety of resident and migratory wildlife species. Common bird species in upland oak woodland habitats include turkey vulture (*Cathartes aura*), acorn woodpecker (*Melanerpes formicivorus*), oak titmouse (*Baeolophus inornatus*), wild turkey (*Meleagris gallopavo*), Anna's hummingbird (*Calypte anna*), and migratory birds such as ash-throated flycatcher (*Myiarchus cinerascens*) and violet-green swallow (*Tachycineta thalassina*). Mammals and reptiles that are commonly found in these woodlands include mule deer (*Odocoileus hemionus*), western rattlesnake (*Crotalus viridis*), western harvest mouse (*Reithrodontomys megalotis*), southern alligator lizard (*Elgaria multicarinata*), western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), and bobcat (*Lynx rufus*). These woodlands also support nonnative wild pigs (*Sus scrofa*), which are considered a nuisance wildlife species and are discussed further in Chapter 14.0, "Hazards and Hazardous Materials." Open annual grassland and oak savanna habitats support species such as red-tailed hawk (*Buteo jamaicensis*), black-tailed jackrabbit (*Lepus californicus*), western meadowlark (*Sturnella neglecta*), California ground squirrel (*Spermophilus beecheyii*), and loggerhead shrike (*Lanius ludovicianus*).

Valley foothill riparian woodlands provide resources, migration and dispersal corridors, and cover for diverse species. Bird species associated with this habitat include brown-headed cowbird (*Molothrus ater*), Hutton's vireo (*Vireo huttoni*), red-shouldered hawk (*Buteo lineatus*), Bewick's wren (*Thryomanes bewickii*), orange-crowned warbler (*Vermivora celata*), yellow-breasted chat (*Icteria virens)*, spotted towhee (*Pipilo maculates*), and lesser goldfinch (*Cardelius psaltria*). Several amphibians and reptiles—western toad (*Bufo boreas halophilus*), northwestern pond turtle (*Emys marmorata*), green racer (*Coluber constrictor*), and Gilbert's skink (*Eumeces gilbertii*)—use riparian woodlands in the project area. Mammals that use this habitat include mule deer, opossum (*Didelphus virginiana*), and cougar (*Felis concolor*). Bats, such as Yuma myotis (*Myotis yumanensis*), may forage for insects over riparian areas and roost in riparian trees.

### 12.2.3 Fisheries and Aquatic Resources

Raccoon Creek, the Bear River, and their tributaries provide spawning, rearing, and/or migratory habitat for a diverse assemblage of native and nonnative species. Raccoon Creek is connected to the Sacramento River through the East Side Canal (ESC)/Natomas Cross Canal (NCC), a channelized water conveyance canal in Sutter County that drains the area between the Bear River and American River drainages. Because of this connection to the Sacramento River, Raccoon Creek downsteam of the project area potentially supports anadromous species (i.e.,

species that spawn in freshwater after migrating as adults from marine habitat). Native anadromous species that potentially could occur in Raccoon Creek downstream of the project area include Central Valley fall-/late fall-run chinook salmon evolutionary significant unit (ESU) (*Oncorhynchus tshawytscha*), Central Valley steelhead distinct population segment (DPS; formerly ESU) (*O. mykiss*), and Pacific lamprey (*Lampetra tridentata*). Native resident species in the Bear River and in Raccoon Creek could include Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento splittail (*Pogonichthys macrolepidotus*), Sacramento sucker (*Catostomus occidentalis*), hardhead (*Mylopharodon conocephalus*), California roach (*Lavinia symmetricus*), and rainbow trout (*O. mykiss*).

Nonnative resident species that could occur in Raccoon Creek, the Bear River, and in project area stockponds include largemouth bass (*Micropterus salmoides*), smallmouth bass (*M. dolomieu*), white and black crappie (*Pomoxis annularis, P. nigromaculatus*), channel catfish (*Ictalurus punctatus*), white catfish (*Ameiurus catus*), brown bullhead (*I. nebulosus*), bluegill (*Lepomis macrochirus*), green sunfish (*L. cyanellus*), and golden shiner (*Notemigonus crysaleucas*). Shaded riverine aquatic (SRA) vegetation and instream tree and shrub debris provide important components of fish habitat in Raccoon Creek and the Bear River. SRA habitat is defined as the nearshore aquatic habitat occurring at the interface between a river and adjacent woody riparian habitat. The principal attributes of this cover type are an adjacent bank composed of natural, eroding substrates supporting riparian vegetation that either overhang or protrude into the water; and water that contains variable amounts of woody debris (leaves, logs, branches, and roots) and has variable depths, velocities, and currents. Riparian habitat provides structure (through SRA habitat) and food for fish species. Shade decreases water temperatures and low overhanging branches can provide sources of food by attracting terrestrial insects. As riparian areas mature, the vegetation sloughs off into the rivers, creating structurally complex habitat consisting of large woody debris that furnishes refugia from predators, creates variability in water velocities, and provides habitat for aquatic invertebrates. For these reasons, many fish species are attracted to SRA habitat.

Upper Raccoon Creek provides coldwater spawning and rearing habitat for chinook salmon and steelhead trout downstream of the project area. Electrofishing surveys conducted by CDFW in 2004 and 2005 as part of the Coon Creek System Resource Assessment Project confirmed the presence of steelhead/rainbow trout and juvenile chinook salmon downstream of the project area. The channelized lower Raccoon Creek and ESC/NCC function primarily as a migration corridor and do not provide high-quality rearing and spawning habitat for splittail, salmon, or steelhead.

### 12.2.4 SENSITIVE HABITATS

For the purposes of this SEIR, sensitive habitats are defined as habitats with particularly high ecological values or functions, of limited distribution, or of concern otherwise to federal, state, and/or local resource agencies. This includes those that are of special concern to the California Department of Fish and Wildlife (CDFW) (e.g., those identified as having high priority for inventory by the California Natural Diversity Database (CNDDB), or those that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the Clean Water Act (CWA), or the Sustainable Fisheries Act, as amended. Sensitive habitats are of special concern because they have high potential to support special-status plant and animal species. Sensitive habitats can also provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality.

Drainages, wetlands, and other areas identified in the wetland delineation as jurisdictional waters of the United States are protected under the CWA as regulated by the U.S. Army Corps of Engineers (USACE). Streams and

adjacent riparian forest are also protected under the California Fish and Game Code. In addition, the Sacramento River, East Side Canal (ESC)/Natomas Cross Canal (NCC), and Raccoon Creek have also been designated as essential fish habitat (EFH) by the Pacific Fishery Management Council to protect and enhance habitat for coastal marine fish and macroinvertebrate species that support commercial fisheries. EFH is defined as waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. Under the *Pacific Coast Salmon Fisheries Management Plan* (Pacific Fishery Management Council 2003), the Sacramento River has been designated as EFH for spring-, fall-, late fall– and winter-run chinook salmon, and the ESC/NCC and Raccoon Creek have been designated as EFH for fall-run chinook salmon. The Bear River is a tributary to the Feather River and does not support anadromous fish because of downstream dams which impede fish passage.

Sensitive habitats in the project area include the riparian habitat along Raccoon Creek, Bear Creek, and intermittent drainages (described above as valley foothill riparian habitat).

#### JURISDICTIONAL WETLANDS AND OTHER WATERS OF THE UNITED STATES

A preliminary delineation of waters of the United States was prepared for the project area (see Appendix I). In addition to reviewing aerial imagery and conducting database searches to assist in locating areas of potential wetlands and waters, fieldwork for the delineation report was conducted on December 6–7 and 13–14, 2016; May 27 and 30–31 and June 1, 2017; and May 15, 2018 in the project area. The study area for the project consisted of the proposed trail system alignment plus 50 feet on either side of the trail system alignment, stream crossing locations, staging areas, and parking areas (Exhibit 12-1). In locations where no trail exists, the trail width was assumed to be 4 feet, and in locations where the trail would coincide with an existing road the trail width was assumed to be the width of the road. Two trail segments, the segment adjacent to the Bear River and the southernmost segment within the Harvego Preserve, were inaccessible because of steep slopes or dense vegetation. Waters that crossed these areas were delineated based on aerial imagery, topographic maps, and geographic information system water data layers.

A total of 5.61 acres of potentially jurisdictional features, as defined by USACE under CWA Section 404, occur within the proposed trails expansion project boundaries. These features consist of perennial stream and intermittent and ephemeral drainages, stock ponds, and wetlands. Blue oak woodland, blue oak-foothill pine woodland, annual grassland, mixed chaparral, and foothill valley riparian habitats lack one or more criteria that define wetlands and are considered uplands. These habitats are generally not regulated by USACE under CWA Section 404.

### 12.2.5 SPECIAL-STATUS SPECIES

Special-status species are plants and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. These species are federally listed and/or state listed as rare, threatened, or endangered; candidates or proposed for listing; identified by CDFW or the U.S. Fish and Wildlife Service (USFWS) as species of concern; and plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered.

#### SPECIAL-STATUS PLANTS

This section summarizes the results of special-status plant surveys that were conducted in the project area (Appendices G and K). Special-status plants are defined as plants that are legally protected or otherwise

considered sensitive by federal, state, or local resource conservation agencies and organizations. Special-status plants are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by the federal government or the state of California as endangered, threatened, or rare;
- a candidate for state or federal listing as endangered, threatened, or rare;
- taxa that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- taxa designated as a special-status, sensitive, or declining species by other federal or state agencies or nongovernmental organizations; and
- taxa considered by CNPS to be "rare, threatened or endangered in California" (Lists 1B and 2).

The CNPS has identified five categories of California Rare Plant Ranks (CRPRs):

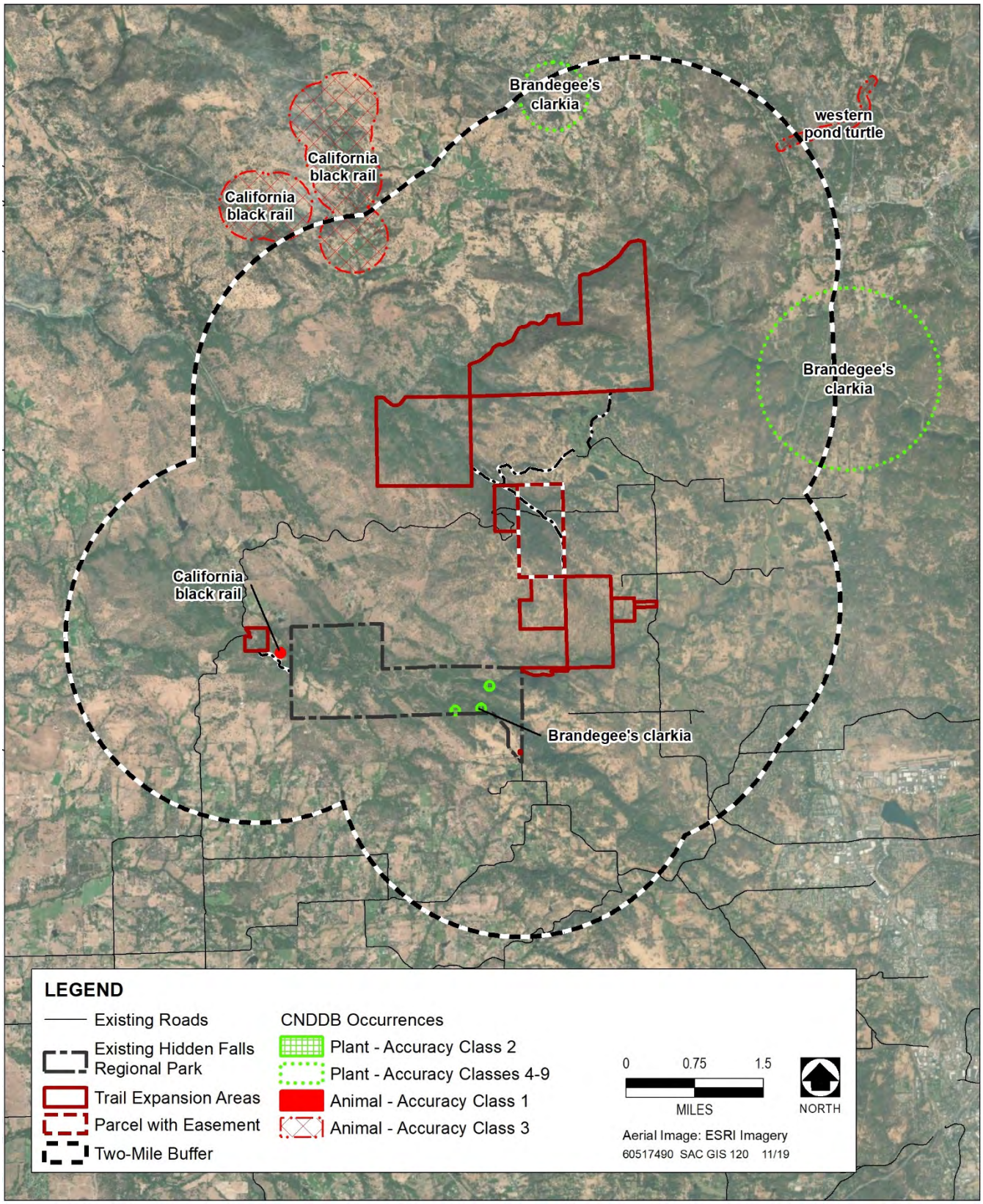
- List 1A—Plants presumed to be extinct in California
- List 1B—Plant species considered rare, threatened, or endangered in California and elsewhere
- List 2—Plant species considered rare, threatened, or endangered in California but more common elsewhere
- List 3—Plants about which more information is needed (a review list)
- List 4—plants of limited distribution (a watch list)

Each CRPR category may include an extension indicating the level of endangerment in California:

- 1—Seriously endangered in California (more than 80 percent of occurrences are threatened and/or high degree and immediacy of threat)
- 2—Fairly endangered in California (20–80 percent of occurrences are threatened)
- 3—Not very endangered in California

CDFW recommends—and local governments may require—that CEQA review of proposed projects address plants on Lists 1A, 1B, and 2.

Searches of the CNPS and CNDDB databases identified 23 special-status plant species occurring in the vicinity of the proposed trails expansion project area, and one species not reported in the database queries was documented within the Spears Ranch portion of the HFRP in a 2007 rare plant survey (Placer County 2007). Exhibit 12-3 shows the location of special-status plant species within a 2-mile radius of the project area. Twenty-one of these species, which are listed below, were identified as having no potential to occur in the project area because they are restricted to soils and habitat types that do not exist in the project area or are only found at elevations lower than those found in the project area and thus, are excluded from further analysis:




Source: CDFW CNDDB 2019

**Exhibit 12-3. CNDDB for Trail Expansion Areas**

- Stebbin's morning glory (*Calystegia stebbinsii*), chapparal sedge (*Carex xerophila*), Pine Hill ceanothus (*Ceanothus roderickii*), Red Hills soap root (*Chlorogalum grandiflorum*), and Layne's ragwort (*Packera layneae*) are restricted to gabrro or serpentine soils, which do not occur on the property.

- Bisbee Peak rush-rose (*Crocanthemum suffrutescens*), El Dorado bedstraw (*Galium californicum* ssp. *sierrae*), and El Dorado County mule ears (*Wyethia reticulata*) are restricted to gabbro soils, which do not occur on the property, and are not known to occur in Placer County.

- Jepson's onion (*Allium jepsonii*) and big-scale balsamroot (*Balsamorhiza macrolepis*) are found on serpentine soils, which do not occur on the property.

- Dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Red Bluff dwarf rush (*J. leiospermus* var. *leiospermus*), legenere (*Legenere limosa*), and pincushion navarretia (*Navarretia myersii* spp. *myersii*) occur in vernal pool habitats, which do not occur on the property.

- Hispid bird's-beak (*Chloropyron molle* ssp. *hispidum)* is known to occur in Placer County only in damp alkaline meadows at an elevation of about 150 feet. These conditions are not present on the property.

- Butte County fritillary (*Fritillaria eastwoodiae*) occurs primarily in the northern foothills of the Sierra Nevada and Cascade Range. The southernmost known occurrences are found north of the property in Yuba County, where they occur at higher elevations in ponderosa pine forest.

- Dubious pea (*Lathyrus sulphureus* var. *argillaceus*) is not known to occur in Placer County. A single CNDDB occurrence in Placer County is not confirmed, has no record date, and the occurrence rank is unknown. Variety *argillaceu*s is not recognized in the Jepson Manual, and the elevation range for species *Lathyrus sulphureus* is outside the elevation range of the property.

- Mexican mosquito fern (*Azolla microphylla*) and Brazilian watermeal (*Wolffia brasiliensis*) are not known to occur above elevations of 330 feet, which is outside of the elevation range of the property.

Three special-status plant species have the potential to occur in the vicinity of the project area and were therefore the focus of subsequent site surveys: Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*), oval-leaved viburnum (*Viburnum ellipticum*), and Sierra monardella (*Monardella candicans*). Sierra monardella was not identified as a potential target special-status plant species from the database searches because no records currently exist in the CNDDB for this species. However, one population of Sierra monardella was encountered during 2007 rare plant surveys of the Spears Ranch property (EDAW 2007). Table 12-2 summarizes the regulatory status, habitat and blooming period, and potential for occurrence in the project area of Brandegee's clarkia, oval-leaved viburnum, and Sierra monardella. Habitat and elevation range information for these species was obtained from the CNPS Inventory (2017) and the *Jepson Manual: Vascular Plants of California* (Jepson Manual) (Baldwin et al. 2012).

**Table 12-2. Special-Status Plants with Potential to Occur in the Project Area**

| Species | Status[1] | | | Habitat and Blooming Period | Potential for Occurrence |
|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | |
| **Plants** | | | | | |
| Brandegee's clarkia *Clarkia biloba* ssp. *brandegeeae* | – | – | 4.2 | Chaparral, cismontane woodland; often in road cuts; 700 to 3,000 feet elevation; blooms May to July | **Could occur:** Suitable habitat occurs in the project area, but was not found during focused special-status plant surveys. |
| Sierra monardella *Monardella candicans* | – | – | 4.3 | Chaparral, lower montane coniferous forest, cismontane, woodland, 500 to 2,600 feet elevation, blooms April to July | **Could occur: S**uitable habitat occurs in the proposed project area, but was not found during focused special-status plant surveys. |
| Oval-leaved viburnum *Viburnum ellipticum* | – | – | 2B.3 | Chaparral, cismontane woodland or lower montane coniferous forest; 600 to 4,000 feet elevation; blooms May to June | **Could occur:** The majority of the proposed project area is below the elevation range of this species where it occurs in the central foothills, but associated species and potential habitat do occur in the proposed project area; not found during focused special-status plant surveys |

Sources: Baldwin et al. 2012; CDFW 2018; CNPS 2018
Notes: CNPS = California Native Plant Society; CDFW = California Department of Fish and Wildlife; USFWS = U.S. Fish and Wildlife Service
[1] CNPS CA Rare Plant Ranks
1A = Plants presumed extinct in California
1B = Plants rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California, but more common elsewhere
3 = Plants about which we need more information - A review list
4 = Plants of Limited Distribution - A watch list
Threat Ranks:
0.1 = Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
0.2 = Fairly endangered in California (20%–80% of occurrences are threatened)
0.3 = Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
— = no status
CRPR = California Rare Plant Ranks

### Brandegee's Clarkia

Brandegee's clarkia is a member of the evening primrose family. Before 2017, this species was listed as a CRPR 1B.2 plant. However, determined to be more common than was once known, it is now listed as CRPR 4.2. Brandegee's clarkia is found in the central Sierra Nevada foothills between 804 and 2,904 feet above mean sea level in chaparral and woodland habitats, often on road-cuts. It is an annual herb with rose-pink flowers that blooms from May to July. The feature that distinguishes this subspecies from the other two subspecies of *Clarkia biloba* is the length of the notch at the tip of the petal. In Brandegee's clarkia, the notch is less than one-fifth of the petal length.

Surveyors visited reference populations of Brandegee's clarkia that were known to occur in the HFRP to the east of the proposed project area to verify that the species was blooming and identifiable. It was confirmed that the species had been blooming over the previous 2 weeks and would have been blooming during the both survey dates. Populations of Brandegee's clarkia were abundantly distributed throughout the HFRP on north-facing slopes in openings in the black oak woodlands and along recently created trails. Brandegee's clarkia was most typically found on steep, north-facing slopes in the shade and in openings of black oak and foothill pine oak woodland, where common associate species include hedgehog dogtail (*Cynosorus echinatus*), field hedge parsley (*Torilis arvensis*), poison oak, blue wild rye (*Elymus glaucus*), and white globe lily (*Calochortus albus*).

No occurrences of Brandegee's clarkia were encountered in the project area during the special-status plant surveys.

### Sierra Monardella

Sierra monardella, a member of the mint family, is a CRPR List 4.3 plant. It is a small, annual plant with half-inch heads of white flowers that bloom from April to July. Sierra monardella grows on sandy or gravelly soils in oak woodland, chaparral, and ponderosa pine forest throughout the Sierra Nevada foothills.

Surveyors visited a known occurrence of Sierra monardella was in the HFRP in openings of foothill pine-interior live oak woodland on the north side of Raccoon Creek, outside of the proposed project area. Populations of Sierra monardella in this portion of the park were small, consisting of tens of individuals occurring in moderately dense annual grassland on a low-gradient, southwest-facing terrace above the creek. Associate species included species typical of the annual grassland and surrounding woodlands such as bromes, lupines (*Lupinus* sp.), smooth cat's ears (*Hypochaeris glabra*), four spot (*Clarkia purpurea*), Ithuriel's spear (*Triteleia laxa*), needleleaf navarretia (*Navarretia intertexta*), and Elegant harvest brodiaea (*Brodiaea elegans*).

No occurrences of Sierra monardella were encountered in the project area during the special-status plant survey.

### Oval-leaved Viburnum

Oval-leaved viburnum, a member of the honeysuckle family, is a CRPR List 2B.3 species. It is a small- to medium-sized shrub with flat-topped, 1 inch wide, white inflorescences that bloom from May to June. Oval-leaved viburnum grows in chaparral and ponderosa pine forest, generally on north-facing slopes in the northern and central Sierra Nevada foothills and in northwestern California. Where this species occurs in the Sierra Nevada foothills, oval-leaved viburnum is typically found at higher elevations (1,100 to 3,650 feet) than at the proposed project area. Associated species and potential habitat occur in the trail expansion project area; however, the majority of the project area is below the elevation range of this species, and no populations of oval-leaved viburnum are known to occur in HFRP.

No occurrences of oval-leaved viburnum were encountered within the project area during the special-status plant surveys. The surveys were conducted when oval-leaved viburnum would have been blooming and apparent if it were present.

## Special-Status Fish and Wildlife

This section summarizes the results of a special-status wildlife surveys that were conducted for the project area (Appendix I). Special-status wildlife species include animals in the following categories:

- Species listed by the State of California (State) or the federal government as endangered, threatened, or rare
- Candidates for State or federal listing as endangered or threatened
- Taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations Section 15380 of the CEQA Guidelines
- Species identified by the California Department of Fish and Wildlife (CDFW) as species of special concern

- Species afforded protection under local or regional planning documents

Thirty-five special-status wildlife species have the potential to occur in the project vicinity, based on records in the CNDDB (CDFW 2019) and the USFWS Information for Planning and Conservation project planning tool (USFWS 2017 and 2018). Fourteen of these species known from the region have no potential to occur in the project area because the project area is outside of their elevation or geographical range or because suitable habitat (e.g., vernal pools, open rocky/sandy soil) is not present. For these reasons, the following species were eliminated from further evaluation:

- Western burrowing owl (*Athene cunicularia hypugea*)
- Bald Eagle (*Haliaeetus leucocephalus*)
- Northern Harrier (*Circus cyaneus*)
- Purple Martin (*Progne subis*)
- Swainson's hawk (*Buteo swainsoni*)
- Bank swallow (*Riparia riparia*)
- Song sparrow ("Modesto" population) (*Melospiza melodia*)
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
- Vernal pool tadpole shrimp (*Lepidurus packardi*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Delta smelt (*Hypomesus transpacificus*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Western spadefoot (*Spea hammondii*)

Table 12-3 provides a list of the remaining 21 special-status wildlife species that were determined to have potential to occur in the project area based on the pre-field investigation (database and literature review). Exhibit 12-3 shows the location of special-status wildlife species within a 2-mile radius of the project area.

Six special-status wildlife species are known to occur in or adjacent to the project area. These are northwestern pond turtle (*Emys marmorata)*, golden eagle (*Aquila chrysaetos*), yellow-breasted chat (*Icteria virens*), yellow warbler (*Dendroica petechial*), California black rail (*Laterallus jamaicensis cotorniculus*), and ringtail (*Bassariscus astutus*). In addition, foothill yellow-legged frog is likely to occur in Raccoon Creek and the Bear River and/or its perennial and intermittent tributaries and to breed within Raccoon Creek. Central Valley steelhead (*Oncorhynchus mykiss*) and hardhead (*Mylopharadon conocephalus*) could occur within Raccoon Creek. Potential additional bird species that may nest within or adjacent to the project area include tricolored blackbird (*Agelaius tricolor*), grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), white-tailed kite (*Elanus leacurus*), American peregrine falcon (*Falco peregrinus anatum*), loggerhead shrike (*Lanius ludovicianus*), and other migratory birds.

Bat species have the potential to roost and forage within and adjacent to the project area, including three special-status bat species: pallid bat, Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus blossevillii*). No special-status species were observed on or adjacent to the study area during the 2016, 2017, and 2018 surveys (see Appendix I).

**Table 12-3. Special-Status Wildlife Species Potentially Occurring in the Project Area**

| Special-Status Species | Regulatory Status (Federal; State) [1] | Habitat Requirements | Potential for Occurrence in the Project Area [2] |
|---|---|---|---|
| **Amphibians/Reptiles** | | | |
| Western pond turtle *Emys marmorata* | SSC | Inhabits permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes with emergent logs or boulders for basking. Nests in sandy banks along large, slow-moving streams or upland in a variety of soils. | **Known to occur;** surveys conducted in 2005 confirmed presence along Raccoon Creek; Drainages on the Twilight Ride parking site are small, ephemeral, and heavily shaded; however, the stock ponds provide suitable pond habitat. There is no suitable nesting habitat on the Twilight Ride parking site. |
| Foothill yellow-legged frog *Rana boylii* | SC | Streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands; sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. Breeding occurs exclusively in streams and rivers and requires cobble-sized substrate for eggs and a minimum of 15 weeks of water for larval development. | **Likely to occur;** suitable aquatic habitat is present at Raccoon Creek and other drainages with cobble substrate. A possible foothill yellow-legged frog was observed during surveys in December 2016. |
| California red-legged frog *Rana draytonii* | FT | Sierran populations inhabit still or slow-moving water with deep (generally ≥ 2 ft) pools and emergent or overhanging vegetation. Breeds in wetlands, ponds, lakes, and slow-moving, low-gradient stream reaches. Requires a minimum of 11 to 20 weeks of water for larval development and upland refugia for aestivation if no permanent water is present. | **Not likely to occur;** suitable aquatic habitat or terrestrial non-breeding dispersal habitat is located within and adjacent to the project area. However, the nearest known population of California red-legged frog (one of seven known breeding populations scattered in the Sierra Nevada foothills) is approximately 23 miles from the project site. |
| **Fish** | | | |
| Hardhead *Mylopharadon conocephalus* | SSC | Spawning occurs in pools and side pools of rivers and creeks; juveniles rear in pools of rivers and creeks and in shallow to deeper water of lakes and reservoirs. | **Could occur;** occurs downstream in the lower Sacramento River and may occur in Raccoon Creek. |
| Central Valley steelhead *Oncorhynchus mykiss* | FT | Requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries and in the Sacramento–San Joaquin River Delta. | **Likely to occur;** surveys conducted in 2005 confirmed presence in Raccoon Creek within HFRP below waterfalls. Raccoon Creek within HFRP but outside of the project area is designated critical habitat for this species. |
| Chinook salmon – Central Valley spring-run, fall-run, and late-fall-run evolutionarily significant units (ESU) *Oncorhynchus tshawytscha* | FT, ST | Requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries, and in the Sacramento–San Joaquin River Delta. | **Could occur;** surveys conducted in 2005 confirmed presence within Raccoon Creek approximately 1 mile downstream of HFRP. However, this species is unlikely to pass waterfalls and access the segment of Raccoon Creek within HFRP under most flow conditions. |
| Sacramento splittail *Pogonichthys macrolepidotus* | SSC | Spawning and juvenile rearing from winter to early summer in shallow weedy areas inundated during seasonal flooding in the lower reaches and flood bypasses of the Sacramento River. | **Could occur;** may occur in Raccoon Creek but unlikely to pass waterfalls and access the segment of Raccoon Creek within HFRP under most flow conditions. |

**Table 12-3. Special-Status Wildlife Species Potentially Occurring in the Project Area**

| Special-Status Species | Regulatory Status (Federal; State) [1] | Habitat Requirements | Potential for Occurrence in the Project Area [2] |
|---|---|---|---|
| **Birds** | | | |
| Tricolored blackbird *Agelaius tricolor* (nesting) | SSC, ST | Colonial nester in cattails, bulrush, or blackberries associated with wetland or drainage habitats. Forages in grassland or cropland habitats. | **Could occur;** suitable nesting and foraging habitat present in the vicinity of the project area in marshes along Raccoon Creek and within Harvego Preserve and in the vicinity around stock ponds and along drainages in the Twilight Ride parking site. The nearest nesting records are from the vicinity of Lincoln; no nesting colonies have been recorded in or near the project area (Beedy pers. comm. 2019) |
| Grasshopper sparrow *Ammodramus savannarum* (nesting) | SSC | Prefers short- to middle-height, moderately open grasslands with scattered shrubs. | **Could occur;** suitable nesting and foraging habitat is present in vicinity of project area in grasslands with scattered oak trees |
| Golden eagle *Aquila chrysaetos (year-round)* | FP | Nests on cliffs and in large trees in open areas. Needs open terrain for hunting; grasslands, deserts, savannas, and early successional stages of forest and shrub habitats. | **Known to occur;** suitable habitat occurs within or adjacent to the project area. Golden eagle is known to nest in HFRP and presence is documented throughout the project area. |
| Long-eared owl *Asio otus* (nesting) | SSC | Requires dense cover for nesting and open areas for foraging. Nests in closed canopy conifer, oak, riparian, pinyon-juniper, and desert woodlands or open woodlands adjacent to grasslands, meadows, or shrublands. | **Could occur;** suitable nesting and foraging habitat is present in riparian habitat vicinity of the project area. |
| Yellow-breasted chat *Icteria virens* (nesting) | SSC | Forages and nests in riparian thickets of willow and other brushy thickets near streams or other watercourses. | **Known to occur;** suitable nesting and foraging habitat present in vicinity of project area on HFRP and Taylor Ranch along Raccoon Creek and surrounding freshwater marshes and stock ponds. Observed in HFRP and Taylor Ranch during surveys conducted in 2007–2008; marginally suitable nesting habitat and suitable foraging habitat present on the Twilight Ride parking site. |
| Yellow warbler *Dendroica petechial* (nesting) | SSC | Nests in trees or shrubs, particularly those with spines or thorns. Forages in open country. | **Known to occur;** suitable nesting and foraging habitat present on Harvego Preserve property and Twilight Ride parcel in vicinity of project area. Observed on Harvego Preserve during surveys conducted in 2010–2013 |
| *White-tailed kite Elanus leacurus* (nesting) | FP | Nests in riparian corridors along streams and rivers, small woodland patches, or isolated trees in open country and forages in nearby grasslands and fields. | **Could occur;** marginally suitable nesting and foraging habitat present in vicinity of the project area in grasslands with scattered oak trees |

**Table 12-3. Special-Status Wildlife Species Potentially Occurring in the Project Area**

| Special-Status Species | Regulatory Status (Federal; State) [1] | Habitat Requirements | Potential for Occurrence in the Project Area [2] |
|---|---|---|---|
| American peregrine falcon<br>*Falco peregrinus anatum*<br>*(nesting)* | FP | Nests in a wide variety of habitats, including woodlands, dense coniferous forest, and coastal habitats near wetlands, lakes, or rivers on high cliffs, banks, dunes, or mounds. | **Could occur;** suitable nesting habitat is present in cliffs along Raccoon Creek. However, closest known occurrence is 8 miles southeast of project area**.** |
| *Loggerhead shrike*<br>*Lanius ludovicianus*<br>(nesting) | SSC | Nests in trees or shrubs, particularly those with spines or thorns. Forages in open country. | **Could occur;** suitable nesting and foraging habitat is present in vicinity of project area in grasslands with blackberry thickets and scattered oak trees |
| California black rail<br>*Laterallus jamaicensis cotorniculus*<br>(nesting) | ST | Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays; requires dense vegetation for nesting. | **Known to occur;** suitable nesting and foraging habitat present in the vicinity of the project area in marshes along Raccoon Creek and within Harvego Preserve. |
| **Mammals** | | | |
| Pallid bat<br>*Antrozous pallidus* | SSC | Roosts in rocky outcrops, cliffs, crevices, trees, and snags. Forages over water in mixed conifer forests and conifer woodlands. | **Could occur;** likely forages in the project area**,** and suitable roosting habitat is present within and adjacent to the project area. |
| Ringtail<br>*Bassariscus astutus* | FP | Prefers rocky habitats associated with water, including riparian canyons, caves, and mine shafts. Requires rock crevices, hollow trees, or snags for breeding or denning. | **Known to occur;** suitable habitat occurs within or adjacent to the project area. Ringtail prints were observed within the Harvego Preserve during surveys conducted in 2010–2013. |
| Townsend's big-eared bat<br>*Corynorhinus townsendii* | SSC | Has a variety of habitats throughout California, including coniferous forests. Requires caves, mines, tunnels, or other man-made structures. | **Could occur;** likely forages in the project area, and rock crevices within and adjacent to the project area may provide suitable roosting sites. |
| Western red bat<br>*Lasiurus blossevillii* | SSC | Roosts primarily in trees adjacent to streams, fields, or urban areas. Forages over water edges in open areas of mixed conifer and conifer/woodlands. | **Could occur;** likely forages in the project area, and trees within and adjacent to the project area may provide suitable roosting sites. |

Sources: CDFW 2018 & 2019; Placer County 2009; PLT 2007a, 2007b, 2007c, 2007d, 2007e, 2010, 2011, 2012, 2013; USFWS 2017 & 2018. AECOM 2018

Notes

[1] Regulatory status definitions

Federal Endangered Species Act (ESA):

DPS = Distinct Population Segment
FC = candidate
FE = federal endangered
FT = federal threatened
PT = proposed threatened

California Endangered Species Act (CESA):

FP = California fully protected
SC = State candidate for listing
SE = California state endangered
SSC = California Species of Special Concern
ST = California state threatened

[2] Potential for occurrence definitions

- Not likely to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
- Could occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.
- Likely to occur: Suitable habitat is available and indicators observed that the species might be present.

## FISH

### Hardhead

Hardhead is a federal species of concern and a state species of special concern (Table 12-3). This species is widely distributed in streams at low to middle elevations throughout the main Sacramento–San Joaquin drainage, including the Sacramento River system, and prefers undisturbed portions of larger streams. Hardhead are able to withstand summer water temperatures above 20ºC; however, they will select areas with lower water temperatures when they are available. Pools with sand-gravel substrates and slow water velocities are the preferred habitat; adult fish inhabit the lower half of the water column, while the juvenile fish remain in the shallow water closer to the stream edges. Hardhead typically feed on small invertebrates and aquatic plants at the bottom of quiet water (Moyle 2002).

### Central Valley Fall-/Late Fall–Run Chinook Salmon ESU

Adult Central Valley fall-/late fall–run chinook salmon ESU enter the Sacramento and San Joaquin River systems from July through April and spawn from October through February. This species is a federal species of concern and state species of special concern (Table 12-3). During spawning, the female digs a redd (gravel nest) where she deposits her eggs, which are then fertilized by the male and undergo an incubation period. Newly emerged chinook salmon fry remain in shallow, lower-velocity edgewaters, particularly where debris congregates and makes the fish less visible to predators (CDFW 1998). Juveniles typically rear in freshwater (in their natal streams, the Sacramento River system, and the Sacramento–San Joaquin Delta [Delta]) for up to 5 months before entering the ocean. Juveniles migrate downstream between January and June.

Cover structure, space, and food are necessary components of chinook salmon rearing habitat. Suitable habitat includes areas with instream and overhead cover—undercut banks, downed trees, and large overhanging tree branches. The organic materials that form fish cover also help provide food sources in the form of both aquatic and terrestrial insects. Juvenile chinook salmon that grow faster are likely to migrate downstream sooner, which helps to reduce the risks of predation and competition in freshwater systems. CDFW fish sampling in Raccoon Creek downstream of Garden Bar Road on Foggy Ranch confirmed the presence of juvenile chinook salmon in 2005 (Navicky, pers. comm., 2007). This reach of Raccoon Creek is downstream of the project area.

### Central Valley Steelhead DPS

Historically, Central valley steelhead DPS spawned and reared in most of the accessible upstream reaches of the Sacramento and American Rivers and many of their tributaries. The Central Valley steelhead DPS generally migrated farther than chinook salmon into tributaries and headwater streams where cool, well-oxygenated water is available year round. This species is federally listed as threatened (Table 12-3). Central Valley steelhead spawn mainly from January through March, but spawning has been reported from late December through April (McEwan and Jackson 1996). During spawning, the female digs a redd (gravel nest) in which she deposits her eggs, which are then fertilized by the male and undergo an incubation period. Newly emerged steelhead fry move to shallow, protected areas along streambanks but move to faster, deeper areas of the river as they grow.

Juvenile steelhead feed on a variety of aquatic and terrestrial insects and other small invertebrates. They rear throughout the year and may spend 1–3 years in freshwater before emigrating to the ocean. Smoltification, the physiological adaptation that juvenile salmonids undergo to tolerate saline waters, occurs in juveniles as they begin their downstream migration.

CDFW fish sampling efforts that took place on April 15, 2005, on the Spears Ranch portion of Raccoon Creek, downstream of the proposed expansion area, captured numerous rainbow trout individuals (Navicky, pers. comm., 2007).

### Sacramento Splittail

Sacramento splittail was recently delisted from federally threatened status but remains a state species of special concern (Table 12-3). A large freshwater cyprinid (any of the family Cyprinidae of soft-finned freshwater fishes including the carps and minnows) that is tolerant of moderate salinities, this species is a bottom forager that feeds on small invertebrates and detritus. Sacramento splittail migrate from brackish water to freshwater to spawn over flooded terrestrial (preferred) or aquatic vegetation (Moyle 2002, Wang 1986). Larval splittail are commonly found in shallow, vegetated areas where spawning occurs and eventually move into deeper, open-water habitats as they grow and become juvenile. Splittail were historically present in Raccoon Creek, but they are unable to access the creek within the Spears Ranch portion of the park and upstream areas in the proposed expansion areas because of downstream natural barriers (i.e., waterfalls) in the channel.

## Amphibians and Reptiles

### California Red-Legged Frog

California red-legged frog is federally listed as threatened and is a state species of special concern. This species is commonly found in lowlands or foothills adjacent to streams; it also inhabits humid forests, woodlands, grasslands, and streamsides with plant cover. Adults will use mammal burrows or other refuges, such as moist leaf litter, in upland habitats for estivation (when animals slow their activity for the hot, dry summer months) (Jennings and Hayes 1994). A buffer of 200 feet (60 meters) from aquatic habitat is sufficient to provide upland foraging and dispersal habitat for most California red-legged frogs inhabiting the project area (USFWS 2006). California red-legged frogs are usually associated with aquatic habitats such as creeks, streams, and ponds, occurring primarily in areas that have pools approximately 3 feet deep with adjacent dense emergent or riparian vegetation (Jennings and Hayes 1988). Adult frogs rarely move large distances from their aquatic habitat.

California red-legged frogs historically occupied portions of the western slope of the Sierra Nevada from Shasta County south to Tulare County, but these populations have been fragmented and nearly eliminated. Currently, only a few drainages in the foothills of the Sierra Nevada are known to support California red-legged frogs (USFWS 2002).

The nearest known population of California red-legged frog is approximately 23 miles from the project site. However, suitable habitat for California red-legged frogs in the Sierra Nevada foothills is often located on private land where surveys are infrequently conducted. Several stockponds occur in the vicinity of the proposed parking improvements at Harvego Bear Road/Curtola Ranch Road. While necessary habitat elements may be present to support populations of California red-legged frogs, the majority of the stockponds and located in and around Auburn Valley Golf Course and are likely contaminated with runoff from fertilizer and possibly pesticides as well. While conditions are marginal and the likelihood of their occurrence is low, their presence cannot be ruled out without surveys. The presence of bass and bullfrogs in stock ponds and marshes may make these habitats less suitable to unsuitable as spawning and rearing habitat for this species, but for the purpose of this SEIR California red-legged frog are presumed to potentially occur.

### Foothill Yellow-Legged Frog

Foothill yellow-legged frog is a state species of special concern (Table 12-3). This species is characteristically found close to water in association with perennial streams and ephemeral creeks that retain perennial pools through the end of summer. In rivers, breeding areas are often associated with confluences of tributary streams that are predominantly perennial (Seltenrich and Pool 2002). These frogs require shallow, flowing streams with some cobble-sized substrate on which they deposit large masses of eggs. Egg-laying normally follows the period of high-flow discharge associated with winter rainfall, usually between late March and early June. Eggs hatch in about 15–30 days depending on water temperature, and tadpoles metamorphose into juvenile frogs in 3–4 months.

There are no CNDDB records of foothill yellow-legged frog within 2 miles of the project area (CDFW 2019). Suitable aquatic habitat for foothill yellow-legged frog is present at Raccoon Creek and other drainages with cobble substrate. A possible foothill yellow-legged frog was observed during surveys conducted in December 2016. For the purpose of this SEIR, foothill yellow-legged frog are presumed to potentially occur.

### Western Pond Turtle

Western pond turtle is a state species of special concern (Table 12-3). This species generally occurs in streams, ponds, freshwater marshes, and lakes from sea level to about 6,000 feet above sea level. Northwestern pond turtles require still or slow-moving water with instream emergent woody debris, rocks, or other similar features for basking sites. Their nests are typically located on unshaded upland slopes in dry substrates with clay or silt soils. Hatchlings and juveniles require shallow water with abundant emergent vegetation.

Surveys conducted by CDFW along Raccoon Creek in fall 2005 found western pond turtles in the Spears Ranch property, downstream from the project area. A total of 25 individuals were captured at three locations along Raccoon Creek during these surveys. In addition, there are two CNDDB records of western pond turtle within 10 miles of the project area (CDFW 2007). These records occur 7.25 miles northeast of the project area along Wolf Creek and 5.25 miles from the project area close to Rock Creek near Camp Far West Reservoir. Exhibit 12-3 shows the location of western pond turtle records within 2 miles of the project area. Suitable aquatic habitat is present in the Raccoon Creek, the Bear River, and in freshwater marshes and other drainages and stock ponds in the project area.

## Protected Raptors

Several raptor species that are considered state species of special concern or state fully protected species—Golden eagle and white-tailed kite—may forage and/or nest in the project area (Table 12-3). Other raptors, including red-shouldered hawk, red-tailed hawk, western screech owl, and great-horned owl (*Bubo virginianus*) also may nest in the project area. Golden eagles and white-tailed kites may forage in annual grasslands and open-canopy oak woodlands. Golden eagles prefer cliffs and large trees with large horizontal branches and for roosting and perching. A golden eagle nest was found southeast of the project area, within about 100 feet of Whiskey Diggins Canal Road, in 2007.

The nearest record of white-tailed kite is approximately 9 miles south of the project area (CDFW 2007). Two golden eagles were observed on the Spears Ranch property during point count surveys (CDFW 2007), and three Cooper’s hawks are likely to nest in oak woodlands in the project area, and Cooper’s hawks and sharp-shinned hawks are likely to forage woodland habitats throughout the project area.

## OTHER SPECIAL-STATUS BIRDS

### California Black Rail

The California black rail is state listed as threatened and is a fully protected species (Table 12-3). This species typically inhabits coastal tidal and Delta marshes but has been known to inhabit freshwater marshes on hardwood rangelands. This species nests in high portions of shallow freshwater marshes, wet meadows, or flooded grassy areas vegetated by fine stemmed emergent plants; characterized by water depths of approximately one inch that do not fluctuate seasonally. Locally occupied sites in the Sierra foothills are typically small, densely vegetated, and fed by irrigation water, with habitat size varying from less than 0.25 acre to over 30 acres (Richmond et al. 2008).

One black rail was detected at a freshwater marsh beyond the project boundaries on the Spears Ranch property during a CDFW survey in spring 2005 (DFG 2005). Exhibit 12-3 shows the location of black rail occurrences within 2 miles of the project area. Freshwater marshes, seeps, blackberry patches, and marshy areas downstream of stock ponds may provide suitable habitat for California black rail in the project area.

### Yellow-Breasted Chat

Yellow-breasted chat is a state species of special concern (Table 12-3). Yellow-breasted chats typically nest in riparian habitats with a dense shrub layer. They tend to prefer willow, wild grape, and blackberry thickets (Ricketts et al. 2000). They prefer areas of scattered trees, dense shrubbery, and any other moist, shady areas such as willow thickets for nesting.

There are no CNDDB records of yellow-breasted chats within 10 miles of the project area; however, blackberry thickets surrounding ponds and freshwater marshes on the project area may provide suitable habitat for this species.

### Loggerhead Shrike

Loggerhead shrike is a state species of special concern (Table 12-3). Loggerhead shrikes are most commonly found in grasslands, agricultural lands, open shrublands, and open woodlands. Special habitat features that improve shrike abundance, survival, and reproductive success are hunting perches, low nesting trees and shrubs, thorny vegetation, and/or barbed wire on which to impale their prey.

There are no CNDDB records of this species within 10 miles of the project area; however, grassland habitat interspersed with scattered shrubs and trees may provide suitable foraging and nesting habitat for the loggerhead shrike.

### Tricolored Blackbird

Ninety-nine percent of the tricolored blackbird population is known to occur in California, making it mostly endemic to the state. More than 75 percent of the breeding population occurs in the Central Valley (Beedy and Hamilton 1999). The colonies require open water, open foraging habitat, and suitable nesting habitat to breed successfully. Ideal nesting habitat consists of freshwater marshes dominated by cattails (*Typha* spp.) and bulrush (*Schoenoplectus* sp.), however some tricolored blackbird colonies nest in willows (*Salix* spp.), blackberries

(*Rubus* sp.), thistles (*Cirsium* and *Centaurea* spp.) or nettles (*Urtica* sp.). Foraging habitat consists of annual grasslands, wet or dry vernal pools, agricultural fields, cattle feedlots, dairies, and seasonal wetlands.

This species has low potential to occur within the project site where suitable nesting and foraging habitat is present in the vicinity of the project area in marshes along Raccoon Creek and within Harvego Preserve and in the vicinity around stock ponds and along drainages in the Twilight Ride parking site. The nearest nesting records are from the vicinity of Lincoln; no nesting colonies have been recorded in or near the project area (Beedy pers. comm. 2019).

### Grasshopper Sparrow

The grasshopper sparrow is localized in the western Sierras, uncommon in the eastern part of the Sierras and is sporadically observed from March to September. Their preferred habitat for foraging consists of grasslands, with a mix of native grasses, forbs, and scattered shrubs with enough dense cover for protection. Grasshopper sparrows will place their nests on the ground and use grasses to construct a cover over the nest that allows for one entry and exit point. Although it has not been recorded in the project area, suitable habitat for the species occurs in the project area.

### Long-eared Owl

Long-eared owls are widespread in North America however they are rarely seen due to their secretive nature. This species requires large open areas near their nests or roost sites for hunting voles and mice. Long-eared owls are uncommon breeders at low elevations in the Sierran foothills. There are no occurrences recorded for this species in or near the project area.

### American Peregrine Falcon

American peregrine falcon, a California fully protected species, is widely distributed and occurs throughout the Central Valley, and in coastal areas and northern mountains of California. Riparian areas, wetlands, lakes, and other aquatic features provide important breeding and foraging habitat for this species. Nests are constructed on depressions or ledges in cliffs, banks, and dunes, usually near water, although this species is also known to nest on human-made structures (buildings and bridges) and old tree snags.

### Yellow Warbler

Yellow warblers are found in a variety of habitats however, when nesting individuals prefer open-canopy riparian deciduous woodlands with a heavy brush understory. This species is a migrant that arrive to the Sierras in early April and stay until September–October and is likely to occur in riparian woodlands of the project area as migrants and as nesters.

### Golden Eagle

Golden eagle prefers open terrain for hunting, such as grasslands, meadows, deserts, savannas, and early successional stages of forest and shrub habitats. Individuals will nest in rugged, open habitats with canyons and escarpments, typically on cliffs and rock outcroppings; however, will also nest in large trees in open areas, including oaks, sycamores, redwoods, pines, and eucalyptus, overlooking open hunting habitat. A golden eagle nest was recorded in the existing Hidden Falls Park, and could forage and nest in the project area.

### White-tailed Kite

White-tailed kite, a California fully protected species, is commonly found in lowland valley and coastal areas throughout California. This species forages in open grasslands, meadows, wetlands, and agricultural areas and feeds primarily on small rodents and mammals. White-tailed kites hunt over lightly grazed or ungrazed fields that may support larger prey populations than more heavily grazed areas. This species could nest and forage in oak woodlands in the project area.

## MAMMALS

### Ringtail

Ringtail is a state fully protected species (Table 12-3). This species occurs in mixed riparian and other forest and shrubby habitats, in close association with permanent water and rocky areas (Belluomini 1980). Ringtail use rock crevices, hollow trees, logs, snags, abandoned burrows, or woodrat nests for dens. Ringtail young are typically born in May and June (Belluomini 1980).

Riparian vegetation and oak woodland on the project provides suitable habitat for ringtail. Surveys conducted by CDFW in 2005 along Raccoon Creek revealed that ringtail is present within the Spears Ranch property west of the project area (CDFW 2005). Also, Ringtail prints were observed within the Harvego Preserve during surveys conducted in 2010–2013 (2010-2013).

### Townsend's Big-Eared Bat

Townsend's big-eared bat is a state species of special concern (Table 12-3). This species lives in a variety of communities: coastal conifer and broad-leaf forests, oak and conifer woodlands, arid grasslands and deserts, and high-elevation forests and meadows. Throughout most of its geographic range, it is most common in mesic sites (Kunz and Martin 1982). Known roosting sites in California include limestone caves, lava tubes, mine tunnels, buildings, and other human-made structures (Graham 1966; Pearson, Koford, and Pearson 1952). Habitat for Townsend's big-eared bats must include appropriate roosting, maternity, and hibernacula sites free from disturbances by humans. Females typically roost in large maternity colonies that are highly susceptible to disturbances by humans (Barbour and Davis 1969). Males usually roost singly or in small groups and are probably not affected as much as females by disturbances. Both sexes hibernate in buildings, caves, and mine tunnels, either singly (males) or in small groups (Pearson, Koford, and Pearson 1952).

Townsend's big-eared bats may use rock crevices within foothill pine–oak woodlands and riparian habitat on the project area.

### Pallid Bat

The pallid bat's distribution ranges from south-central British Columbia to central Mexico. It is often found in desert regions with rocky outcroppings near water bodies. Pallid bats are a social species that will roost in colonies ranging from 12–100 bats in rock crevices, buildings, caves, mines, piles of rocks, and tree cavities. This species may hibernate in higher elevations but will often remain active all year in low to mid-elevations. Young are born in May or June and females will bear one or two pups each year and nurse for six to eight weeks (Harvey et al. 2011:148); maternity colonies and hibernating colonies are sensitive to disturbance. Pallid bat could forage in the project area, and suitable roosting habitat is present within and adjacent to the project area.

### Western Red Bat

Western red bats occur throughout western Canada, Western United States, western Mexico, and Central America. In the western United States, this solitary species primarily roosts in trees or the foliage of large shrubs adjacent to streams, fields, or urban areas. It forages over water edges in open areas of mixed conifer and conifer/woodlands, dominated by cottonwoods, sycamores, oaks, and walnuts. The species is believed to be migratory and is absent in the winter and usually appears in the Northern California during the spring. Although the species is generally solitary, during the maternity season two or more females and their young have been documented together, forming a small maternity colony in tree foliage (Harvey et al. 2011:120). This species likely forages in the project area, and riparian habitat and trees in and adjacent to the project area may also provide suitable roosting sites.

## 12.3 REGULATORY SETTING

### 12.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

The federal regulatory setting has not changed since certification of the 2010 HFRP EIR (See Section X in the HFRP Certified EIR) with the exception of changes to 33 CFR Part 328.3. Those changes have no effect on the determination of jurisdiction of aquatic features for the purpose of analysis of impacts in this SEIR. All aquatic features in the project area are assumed to be jurisdictional. The federal regulatory setting applies to the park and the project area.

### 12.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

#### CALIFORNIA ENDANGERED SPECIES ACT

The state regulatory setting has not changed since certification of the 2010 HFRP EIR (See Section 12.0 Biology) in the 2010 HFRP Certified EIR). The state regulatory setting applies to the park and the project area.

### 12.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The County's General Plan describes assumptions, goals, and planning principles that provide a framework for land use decisions throughout the County. The following are the relevant goals and policies identified in the 2013 General Plan for biological resources.

- **Policy 6.A.10.** The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

**GOAL 6.B:** To protect wetland communities and related riparian areas throughout Placer County as valuable resources.

- **Policy 6.B.1.** The County shall support the "no net loss" policy for wetland areas regulated by U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.

- **Policy 6.B.4.** The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.

**GOAL 6.C:** To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

- **Policy 6.C.1.** The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:

  a. wetland areas including vernal pools.

  b. stream zones.

  c. any habitat for special status, threatened, or endangered animals or plants.

  d. critical deer winter ranges (winter and summer), migratory routes, and fawning habitat.

  e. large areas of non-fragmented natural habitat, including blue oak woodlands, valley foothill and montane riparian, and vernal pool/grassland complexes.

  f. identifiable wildlife movement zones, including but not limited to non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.

  g. important spawning areas for anadromous fish.

- **Policy 6.C.6.** The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special-status species. Where County acquisition and maintenance is not practicable or feasible, federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.

- **Policy 6.C.7.** The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.

**GOAL 6.D:** To preserve and protect the valuable vegetation resources of Placer County.

- **Policy 6.D.3.** The County shall support the preservation of outstanding areas of natural vegetation, including but not limited to oak woodlands, riparian areas, and vernal pools.

- **Policy 6.D.4.** The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.

- **Policy 6.D.5.** The County shall establish procedures for identifying and preserving special status, threatened, and endangered plant species that may be adversely affected by public or private development projects.

- **Policy 6.D.6.** The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.

- **Policy 6.D.7.** The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.

- **Policy 6.D.9.** The County shall require that development on hillsides be limited to maintain valuable natural vegetation, especially forests and open grasslands, and to control erosion.

- **Policy 6.D.10.** The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.

**GOAL 6.E.** To preserve and enhance open space lands to maintain the natural resources of the County.

- **Policy 6.E.1.** The County shall support the preservation and enhancement of natural land forms, natural vegetation, and natural resources as open space to the maximum extent feasible. The County shall permanently protect, as open space, areas of natural resource value, including wetlands, riparian corridors, unfragmented woodlands, and floodplains.

- **Policy 6.E.3.** The County shall support the maintenance of open space and natural areas that are interconnected and of sufficient size to protect biodiversity sustain viable populations, accommodate wildlife movement, and sustain ecosystems.

- **Policy 6.E.4.** The County shall coordinate with local, state, and federal agencies and private organizations to establish visual and physical links among open space areas. Where appropriate, these open space areas are to be connected by scenic corridors, wildlife corridors, and trails. Dedication of easements shall be encouraged, and in many cases, required as lands are developed and built.

### PLACER COUNTY TREE ORDINANCE

The County Tree Ordinance acknowledges Placer County's value of native trees and their preservation. The County Tree Ordinance applies to any discretionary project and all development activity in any tree preservation zone with the potential to affect protected trees. Protected trees include all native, landmark trees, and riparian zone trees. Currently, a tree permit is required for removal of native trees with a diameter at breast height (dbh) of 5 inches or greater, and for removal of landmark and riparian trees. A tree permit may require replacement of trees in kind, require implementation of a revegetation plan, or payment for the value of the trees if the project site is not capable of supporting all of the replacement trees. Removal of trees from riparian areas is also prohibited without prior evaluation and consideration of suitable mitigation measures. In addition, trees that are designated for preservation and protection are not to be damaged during construction.

### PLACER COUNTY CONSERVATION PROGRAM

The *Placer County Conservation Program* (PCCP) would establish a comprehensive, countywide plan for the conservation of covered natural communities, endangered species, and other less sensitive species of native wildlife. The planning area covers approximately 261,000 acres of western Placer County bordered on the west by

Sutter County, on the north by Yuba and Nevada Counties, on the east by El Dorado County, and on the south by Sacramento County.

The PCCP includes three complementary, components: Western Placer County Habitat Conservation Plan and Natural Community Conservation Plan (HCP/NCCP) (Placer County December 2018); Western Placer County Aquatic Resources Program; and the In-Lieu Fee Program to mitigate aquatic resource impacts from activities covered under the HCP/NCCP. The PCCP aims to enhance and restore certain special-status species and natural communities while streamlining state and federal permitting for covered development activities on nonfederal land in Placer County. Covered Activities include public and private recreational development outside of reserve lands by a nonprofit land trust organization (or similar non-governmental organization) or government-sponsored land conservation project (e.g., Placer Legacy through the County of Placer).

Covered activities would be subject to Conditions of the PCCP that promote the protection of the native wildlife covered in the plan including requirements described in Sections 6.3.6.1.1 (Restrictions on Recreational Uses in Future Reserves Acquired during Plan Implementation), 6.3.6.1.2 (New Trail Design and Use Standards for Future Reserves) and 6.3.6.2 (Reserve Management Condition 2, Recreation Component of Reserve Unit Management Plans). These 3 sections, in addition to the other Conditions on Covered Activities provide a comprehensive set of standards that will limit the effects of recreational activities that are allowed in the Reserve System.

The PCCP contains an aquatic resource conservation and mitigation program known as the Western Placer County Aquatic Resources Program (CARP). The CARP applies a landscape- and watershed-scale approach to protection of aquatic resources The CARP provides a means to fulfill the requirements of the federal Clean Water Act (CWA) Sections 404 and 401, and the California Fish and Game Code 1602 programs that protect aquatic resources using the HCP/NCCP's long-term, regional conservation strategy. This regional strategy focuses authorized impacts to aquatic resources near or within existing urban areas and away from rural, intact natural areas, thereby avoiding and minimizing impacts to aquatic resources on a regional scale.

The PCCP also includes the Western Placer County In-Lieu Fee Program (ILF) under which compensatory mitigation requirements under Section 404 of the CWA can be fulfilled by payment of a fee (see CARP Chapter 6, Section 6.2.3). Because of the ILF program, fees paid under the PCCP cover mitigation requirements for impacts to both aquatic resources and special status species (see CARP Sections 4.6 and 6.2.3).

The PCCP is under consideration by USFWS, NMFS, and CDFW, and a 50-year permit term is proposed. An Environmental Impact Statement/Environmental Impact Report (EIR/EIS) evaluating the environmental impacts associated with implementation of the PCCP was released for public review in June 2019. If approved, the PCCP would provide the County with a scientific and legal basis for a series of regulatory permits under Section 10 of ESA, authorization issued from CDFW under Section 2081 of the California Fish and Game Code in compliance with CESA, and programmatic permits based on the Western Placer County Aquatic Resources Program from the U.S. Army Corps of Engineers and Central Valley Water Quality Control Board under Section 401/404 of the Clean Water Act that will make the environmental review and permitting of future public and private projects more consistent, more predictable and more efficient.

## 12.4 IMPACTS

### 12.4.1 ANALYSIS METHODOLOGY

This section addresses the impacts of the proposed park expansion on biological resources and considers how the impacts of constructing new trails, parking facilities and other project elements, and the impacts of increased number of park users, would differ from the impact conclusions from the 2010 HFRP Certified EIR. The analysis considered the application of all adopted mitigation measures from the prior environmental review when making the impact determinations discussed below.

Table 12-4 summarizes the extent of temporary and permanent impacts of the proposed project on vegetation communities and land cover types. The impact analysis was based on the conservative assumption that temporary impacts associated with trail construction would require a 15-foot wide construction corridor. Construction of the trail system would disturb 23.2 acres (7.7 acres permanent and 15.5 acres temporary) of land in linear corridors including drainage crossings. Trailhead improvements including parking, access road and amenities would disturb 18.5 acres (13.5 permanent and 5.0 temporary). Total land disturbance required to construct and operate the project is estimated at 41.8 acres.

**Table 12-4. Habitat Impacts of Proposed Hidden Falls Expansion by Project Element**

| Habitat Type | Trails* | | Parking & Access | | Total Acres |
|---|---|---|---|---|---|
| | Temporary | Permanent | Temporary | Permanent | |
| Annual Grassland | 0.03 | 0.015 | 1.23 | 4.257 | ***3.858*** |
| Blue Oak Woodland | 2.90 | 1.450 | 0.00 | 0.000 | ***4.351*** |
| Mixed Oak Woodland | 0.00 | 0.000 | 1.63 | 4.595 | ***4.504*** |
| Oak Savanna | 0.00 | 0.000 | 1.79 | 10.162 | ***9.204*** |
| Oak-Foothill Pine Woodland | 12.50 | 6.249 | 0.13 | 1.396 | ***19.044*** |
| Developed | 0.00 | 0.000 | 0.16 | 0.318 | ***0.543*** |
| Valley Foothill Riparian Woodland | 0.00 | 0.000 | 0.07 | 0.263 | ***0.184*** |
| Intermittent Drainage | 0.02 | 0.011 | 0.00 | 0.011 | ***0.045*** |
| Ephemeral Drainage | 0.04 | 0.018 | 0.00 | 0.000 | ***0.056*** |
| Seasonal Wetland | 0.000 | | 0.01 | | 0.012 |
| ***Subtotal*** | ***15.5*** | ***7.7*** | ***5.0*** | ***13.5*** | **-** |
| ***TOTAL*** | ***23.2*** | | ***18.5*** | | ***41.8*** |

*Temporary Impacts (assuming 15-ft wide construction corridor for trails)
Total is rounded to nearest hundredth of an acre.

### 12.4.2 THRESHOLDS OF SIGNIFICANCE

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on biological resources if it would:

- substantially affect, directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or native or migratory wildlife corridor, or impede the use of native wildlife nursery sites;

- substantially affect any riparian areas or sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on State or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- conflict with any local policies or ordinances protecting biological resources; or
- conflict with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Section 15380 of the State CEQA Guidelines further provides that a plant or animal species may be treated as rare or endangered even if it is not on one of the official lists under certain conditions if, for example, it is likely to become endangered in the foreseeable future.

Based on guidelines established by USFWS and CDFW, a project could be considered to have a significant adverse impact on biological resources if it would result in substantial disruption to or destruction of any special-status species, its habitat, or breeding grounds. A project would also have a significant impact if it would result in a substantial loss of important plant or animal species or cause a change in species composition, abundance, or diversity beyond that of normal variability.

### 12.4.3 Issues Not Discussed Further

The construction and long-term use of the proposed trails, parking areas, road improvements, and two bridges over Raccoon Creek would not substantially interfere with the movement of any resident or migratory fish or wildlife species, nor would it affect important deer migration routes. The proposed pedestrian bridges over Raccoon Creek will span the creek well above the waterline and will not create barriers to movement of fish or other aquatic species.

The proposed project would support the plans and policies of the General Plan. Because the proposed project would have no impact on the movement of any native resident or migratory fish or wildlife species, or native or migratory wildlife corridor, or impede the use of native wildlife nursery sites, and would not adversely affect an adopted habitat conservation plan, no further discussion is provided on the topics.

### 12.4.4 Impact Analysis

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|---|---|
| IMPACT 12-1 | Biological Resources—Potential Disturbance of Aquatic Habitats and the Native Fish Community. *Several native fish species occur in Raccoon Creek and in the Bear River; special-status fish species, including steelhead and fall-/late fall-run chinook salmon, could occur in Raccoon Creek downstream of the project area. Implementation of the proposed project could result in temporary and long-term degradation of aquatic habitats, loss of instream cover, and increased injury or mortality of fishes because of increased angling pressure.* |
| Significance | *Potentially significant - (Consistent with prior analysis in 2010 HFRP Certified EIR)* |

| | |
|---|---|
| Mitigation Proposed | *Mitigation Measure S12-1: Implement Measures to Protect Aquatic Habitats and Native Fish Community; Mitigation Measure S12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State; and Mitigation Measure S5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities from the Central Valley Regional Water Quality Control Boards and Implement Erosion and Sediment Control Measures as Required* |
| Residual Significance | *Less Than Significant* |

## 2010 HFRP Certified EIR Impact Summary

Temporary adverse impacts on aquatic habitats and the native fish communities could have included increases in sediments and turbidity and the release and exposure of contaminants (e.g., fuels, lubricants) during construction-related activities. Increase in sediments and turbidity could cause movement and redistribution of fish populations and could affect habitat. In addition, the potential existed for contaminants such as fuels, oils and other petroleum products used during construction activities to be introduced into the water system directly or through surface runoff. Contamination of Raccoon Creek with the construction-related chemicals could impair or kill aquatic species.

Long-term effects resulting from trail system construction over Raccoon Creek could have included disturbance and removal of native riparian habitat that is important to fish, including special-status species. Construction of on-site parking and access road could have removed or adversely affected the dripline of native trees. Construction and increased use of trails could have increased erosion and degraded water quality. Depending on design, the long-term presence of bridges over Raccoon Creek could have adversely affected the geomorphic processes associated with habitat functions in the creeks, local currents (from placement of bridge pilings) resulting in modified stream morphology and flow habitats. Though present in low abundance, steelhead/rainbow trout were found in project reach of Raccoon Creek and chinook salmon slightly downstream. An increase in anglers related to improved access to fishing locations could also degrade habitats resulting in varying effects on the fish community. The small populations of anadromous salmonids in Raccoon Creek could be adversely affected by increased angling pressure and would be subject to a decline in abundance.

Riparian and aquatic habitat restoration projects were planned for the reach of Raccoon Creek within the park, resulting in beneficial long-term effects, and implementation of Mitigation Measures 12-1, 12-2, S5-1, and 11-1 would protect aquatic habitats and the native fish community, reducing the potentially significant impact to **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

### Temporary Construction-Related Effects on Aquatic Habitats

Construction of trails, parking facilities, and bridges could result in increased sediment loads and turbidity and the release and exposure of contaminants (e.g., fuels, lubricants) in Raccoon Creek, the Bear River, and in their tributaries. While special-status anadromous fish such as steelhead and fall-/late fall-run chinook salmon do not occur in Raccoon Creek near the trails expansion area, these fish could occur downstream, and could therefore be

adversely affected by upstream construction activities that affect water quality. Sediment and turbidity could adversely affect aquatic habitats and fish species immediately adjacent to and downstream of the project area. Increases in turbidity and sediment can harm fish respiration, feeding, and ability to perform other critical basic biological activities. Further, contamination of Raccoon Creek or the Bear River with construction-related chemicals could impair or even kill aquatic species. Fish population levels and survival have been linked to levels of turbidity and siltation in a watershed. Prolonged exposure to high levels of suspended sediment could create a loss of visual capability in fish, leading to a reduction in feeding and growth rates; a thickening of the gill epithelia, potentially causing the loss of respiratory function; clogging and abrasion of gill filaments; and increases in stress levels, reducing the tolerance of fish to disease and toxicants (Waters 1995).

Also, high levels of suspended sediments would cause the movement and redistribution of fish populations and could affect physical habitat. Once suspended sediment is deposited, it could reduce water depths in pools, decreasing the water's physical carrying capacity for juvenile and adult fish (Waters 1995). Increased sediment loading could degrade food-producing habitat downstream of the project area as well. Sediment loading could interfere with photosynthesis of aquatic flora and displace aquatic fauna. Many fish are sight feeders, and turbid waters reduce the ability of these fish to locate and feed on prey. Some fish, particularly juveniles, could become disoriented and leave areas where their main food sources are located, ultimately reducing their growth rates.

In addition, the potential exists for contaminants such as fuels, oils, and other petroleum products used during construction activities to be introduced into the water system directly or through surface runoff. Contaminants may be toxic to fish or may alter oxygen diffusion rates and cause acute and chronic toxicity to aquatic organisms, thereby reducing growth and survival.

### Long-Term Effects on Aquatic Habitats and the Fish Community

Construction of the expanded trail system (including stream crossings) and bridges over Raccoon Creek would result in disturbance and removal of native riparian vegetation. Removal of riparian vegetation or woody material could result in loss of SRA habitat that is important to fish. Construction of the on-site parking areas and access road would remove or adversely affect the root zones within the dripline of native trees. Further, the construction of the additional natural-surface trails would increase the amount of exposed soil susceptible to erosion. In addition to the new trails that would be constructed in the project area, there are 10 miles of existing ranch roads for hikers, bikers, and equestrians, including crossings over ephemeral streams. Increased use of these trails could increase erosion and degrade water quality. Depending on the design used, the construction and long-term presence of bridges across Raccoon Creek could have an adverse effect on geomorphic processes and associated habitat functions in the creek.

The impacts of the proposed expansion of the HFRP trail network and parking facilities on aquatic habitats and fish communities do not differ substantially from those described in the certified EIR, except that special-status anadromous fish such as steelhead and fall-/late fall-run chinook salmon do not occur in Raccoon Creek within the project area. Construction activities in the project area that degraded downstream water quality in Raccoon Creek could affect these special-status fish, but steelhead and fall-/late fall-run chinook salmon would not be adversely affected by loss of SRA habitat and increased angling pressure in the project area. Construction of trails, parking facilities, and bridges over Raccoon Creek could result in temporary and long-term degradation of aquatic habitats, loss of important SRA habitat functions, and increased injury or mortality of fishes related to increased angling pressure. This impact would be potentially significant. Implementation of Mitigation Measures

S12-1, S12-2, S5-1, and 11-1 or the incorporation of avoidance and minimization measures from the PCCP (if adopted), would reduce the temporary and permanent direct impacts of trail construction in and near intermittent and ephemeral drainages, and indirect impact on the Bear River and Raccoon Creek, to **less than significant**.

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|---|---|
| IMPACT 12-2 | Biological Resources—Potential Disturbance of California Red-Legged Frog. *Marginal habitat for California red-legged frog occurs in and near the project area. Construction and use of proposed trails, bridges, parking areas and structures across or adjacent to stock ponds, creeks with backwaters, and freshwater marshes could degrade and possibly result in removal of aquatic habitat or could result in physical injury to red-legged frog.* |
| Significance | *Potentially significant - (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S12-3: Implement Measures to Protect California Red-Legged Frog* |
| Residual Significance | *Less Than Significant* |

## 2010 HFRP Certified EIR Impact Summary

Creeks in the Spears Ranch portion of the HFRP property provide suitable habitat for California red-legged frog, including areas with freshwater marsh and stock ponds with emergent vegetation, with intermixed fringe of cattails. Trail use was not expected to have a long-term significant effect on the California red-legged frog, but construction of park facilities could affect the California red-legged frog either directly, or indirectly from temporary release of sediments or spills of hazardous materials into occupied aquatic habitat. Implementing Mitigation Measure 12-4 reduced these impacts, such as constructing foot bridges and trails across smaller drainages when they are dry, reduced the potentially significant impact to less than significant.

## 2019 HFRP Trails Expansion Project Impact Analysis

Potential aquatic habitat or terrestrial non-breeding dispersal habitat for California red-legged frog is located in and near stockponds adjacent to the proposed Harvego Preserve/Curtola Ranch Road parking improvements. The likelihood of California red-legged frogs occurring in these stockponds is low, given that the nearest known population of California red-legged frog is approximately 23 miles from the project site, and considering the poor habitat conditions of the stockponds for this species due to contaminated runoff from the surrounding golf course and likely presence of bass and bullfrogs. The intermittent drainages that feed the stockponds do not provide suitable aquatic habitat for California red-legged frogs but could be used as dispersal corridors.

Nevertheless, the potential presence of California red-legged frogs in stockponds and drainages in and near the project area cannot be ruled out. If California red-legged frogs are present in these stockponds or elsewhere in the project area, construction of proposed trails, roads, and foot bridges across drainages, and other structures within 200 feet of occupied habitat could directly and indirectly affect California red-legged frogs. Construction at these locations could kill adults, larvae, or eggs. Construction in aquatic sites could also cause loss of habitat. Indirect effects could result from the temporary release of sediments or spills of hazardous materials into occupied aquatic habitat. Trail use is not expected to have a long-term significant effect on California red-legged frogs, because

culverts or foot bridges would be provided for trail users to avoid long-term damage to waterways. However, the construction-related impact would be potentially significant.

The potential impacts of the proposed expansion of the HFRP trail network on California red-legged frogs do not differ substantially from those described in the 2010 HRFP Certified EIR. Roadway and parking improvements in the Curtola Ranch Road/Harvego Preserve area and access/parking areas on Twilight Ride property and other areas near potential California red-legged frog habitat could directly or indirectly affect this species. This impact would be potentially significant. Mitigation Measure S12-3, *Implement Measures to Protect California Red-Legged Frog*, requires coordination with the USFWS to determine if California red-legged frogs could be affected by proposed construction. It also requires implementation of appropriate measures to avoid, minimize, or mitigate for these impacts. Alternatively, if the PCCP were adopted prior to project construction then the County could rely on the coverage offered by this plan by incorporating the avoidance and minimization measures and payment of the required development fee. Under either scenario, potential impacts on California red-legged frogs would be reduced to **less than significant.**

| | |
|---|---|
| IMPACT 12-3 | Biological Resources—Potential Disturbance of Foothill Yellow-Legged Frog and Western Pond Turtle. *Habitat for foothill yellow-legged frog and western pond turtle occurs in the project area. Construction of trails across drainages could degrade aquatic habitat or could result in physical injury to yellow-legged frog and pond turtle.* |
| Significance | *Potentially significant – (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S12-4: Implement Measures to Protect Foothill Yellow-Legged Frog and Western Pond Turtle* |
| Residual Significance | *Less Than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR determined that the Foothill yellow-legged frog could occur within the project area, in potential habitat areas along Raccoon Creek. The western pond turtle occurred in Raccoon Creek and the Bear River, and may occur in other drainages and stock ponds in the park. Although trails use is not expected to significantly affect the foothill yellow-legged frog and western pond turtle, construction of park trails and facilities during breeding season may affect them, either directly or indirectly from release of sediments or hazardous materials into aquatic habitat. Trail use is not expected to significantly affect. Implementing Mitigation Measure 12-4, such as constructing foot bridges and trails across smaller drainages when they are dry, reduced the potentially significant impact to **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

Foothill yellow-legged frog could occur within the project area, although most of Raccoon Creek is too wide and deep to support breeding populations of foothill yellow-legged frog. The Bear River is characterized by a highly modified hydrological regime and lacks the edgewater/low-velocity areas needed by this species, and there are no

records for this species within the reach of the Bear River within the study area. However, a few areas along Raccoon Creek have terraces and small pools with tail-outs that may have appropriate substrate and water velocity for egg deposition and development. The western pond turtle occurs in Raccoon Creek and likely occurs in the Bear River and may occur in other drainages and stock ponds in the project area.

Construction and installation of proposed trails, roads, and foot bridges across drainages, and parking improvements in the vicinity of drainages, may affect foothill yellow-legged frog and northwestern pond turtles by causing the temporary release of sediments in the water. During the breeding season direct effects could result from physically disturbing foothill yellow-legged frog egg masses, larvae, or adults. Indirect effects could result from the release of sediments or hazardous materials into aquatic habitat. Trail use is not expected to have a significant effect on foothill yellow-legged frogs or western pond turtle because crossings over Raccoon Creek would be provided for trail users to avoid impacts on waterways. However, temporary indirect impacts associated with constructions would be potentially significant.

Although trails use is not expected to significantly affect the foothill yellow-legged frog and western pond turtle, construction of park trails and facilities during breeding season could affect them, either directly or indirectly from release of sediments or hazardous materials into aquatic habitat. Trail use is not expected to have an effect on either species.

The potential impacts of the proposed expansion of the HFRP trail network on foothill yellow-legged frog and western pond turtle do not differ substantially from those described in the 2010 HRFP Certified EIR. Trail construction and road improvements could adversely affect these species, particularly if conducted during the breeding season, by increased sedimentation. Mitigation Measure S12-4: *Implement Measures to Protect Foothill Yellow-Legged Frog and Western Pond Turtle,* requires working in intermittent drainages occur only when they are dry, pre-construction surveys and coordination with CDFW to assess the potential for these species to occur in or near work areas, and other measures to avoid, minimize, and mitigate for potential impacts on these species. Alternatively, if the PCCP were adopted prior to project construction then the County could rely on the coverage offered by this plan by incorporating the avoidance and minimization measures and payment of the required development fee. Under either scenario, impacts on foothill yellow-legged frog and western pond turtle would be reduced to **less than significant**.

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| IMPACT 12-4 | Biological Resources—Potential Disturbance of Nests of Raptors and Other Birds. *Trees and other vegetation in and adjacent to the project area provide potential nest sites for raptors and other birds, including special-status bird species. Removal of trees or other vegetation during construction and maintenance of trails and fuel breaks and for road improvements could destroy or disturb nests, resulting in loss of eggs or young.* |
| Significance | *Potentially significant - (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S12-5: Implement Measures to Protect Raptors and Other Nesting Birds* |
| Residual Significance | *Less Than Significant* |

## 2010 HFRP Certified EIR Impact Summary

Removal of vegetation would occur outside of raptor breeding season, or outside of nesting areas identified during preconstruction surveys. Although removal of trees greater than 6 inches dbh would be avoided, some tree and shrub removal may be unavoidable to construct road improvements, bridges, trails and other park facilities, resulting in loss of golden eagle nests and migratory birds. In 2007, a golden eagle nest was documented within 100 feet of a Park road that would be used as a trail. Public use of trails in the Park could result in an elevated level of disturbance to golden eagle nests near trails, which could cause the abandonment or failure of an active nest. Disturbance from construction and reservation-based events may also result in loss of raptor nests. However, implementing Mitigation Measure12-5 reduced the potentially significant impact to **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

Removal of vegetation would be typically be scheduled to occur outside of the breeding season for most raptors and nesting birds. Removal of trees greater than 5 inches dbh would be avoided to the extent possible; however, removal of some vegetation and trees to improve roads and to construct and install bridges, overlooks and trails, would be unavoidable. Grading activities in annual grassland and disturbed areas could also have direct or indirect impacts on ground-nesting birds.

Removal of trees and shrubs and ground-disturbing activities during the nesting season could result in direct or indirect impacts on nests and nesting activities of raptors and non-raptor birds, including special-status species such as golden eagles, Cooper's and sharp-shinned hawks, peregrine falcons, long-eared owls, yellow warblers, yellow-breasted chat, loggerhead shrike, black rail, and tricolored blackbird. Direct construction-related impacts on nesting birds include destruction of nests or eggs as a result of vegetation trimming, tree removal, and grading. These actions could directly affect birds nesting in the project areas oak woodlands and riparian habitats, and in grasslands.

Indirect impacts on nesting birds, including special-status species, include visual or auditory disturbance from construction noise and human presence. These types of disturbance could result in nest abandonment or failure by deterring birds from preferred nest and foraging sites, and/or distracting adults from tending to their eggs or young. Nesting golden eagles are particularly sensitive to disturbances near their nests. Direct or indirect disturbance to nesting raptors and non-raptors that resulted in nest failure would be a potentially significant impact; however, the golden eagle nest within the existing park boundaries has been repeatedly used by golden eagles since it was documented in 2007 without a known disturbance of the nest from trail users.

The potential impacts of the proposed project do not differ substantially from those described in the 2010 HRFP Certified EIR. Vegetation removal and ground disturbance could result in direct or indirect impacts on nests of raptors and non-raptor birds, including special-status species, and could cause nest abandonment or failure. This impact would be potentially significant. Mitigation Measure S12-5, *Implement Measures to Protect Raptors and Other Nesting Birds*, requires conducting pre-construction nesting bird surveys for vegetation removal or ground disturbance occurring during the nesting season, and establishment of non-disturbance buffers during construction to avoid disturbance. Alternatively, if the PCCP were adopted prior to project construction then the County could rely on the coverage offered by this plan by incorporating the avoidance and minimization measures and paying the required development fee. Under either scenario, impacts on nesting raptors and other birds would be reduced to **less than significant**.

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| IMPACT 12-5 | Biological Resources—Potential Disturbance of Dens and Individual Ringtails. *Trees along riparian portions of the project area such as Raccoon Creek that are 5 inches or greater dbh and are hollow or have large cavities provide potential den sites for ringtail. Removal of such trees or other vegetation during trail construction and for road improvements could destroy dens, resulting in potential loss of adults and/or young.* |
| Significance | *Potentially significant - (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Bat Roosts* |
| Residual Significance | *Less Than Significant* |

### 2010 HFRP Certified EIR Impact Summary

Although removal of trees greater than 6 inches dbh that are hollow or contain large cavities would be avoided during construction to the extent possible, removal of some trees in riparian areas to construct trails would be unavoidable. Removal of these trees could result in loss of ringtail dens and loss of adults and/or young. This impact would be potentially significant. Implementation of Mitigation Measure 12-6 reduced this impact to a **less-than-significant** level.

### 2019 HFRP Trails Expansion Project Impact Analysis

Although removal of trees greater than 5 inches dbh that are hollow or contain large cavities would be avoided during construction to the extent possible, removal of some trees in riparian areas and in oak woodlands to construct trails, bridges, and parking areas and associated facilities would be unavoidable. Removal of trees that provided dens for ringtails could result in loss of ringtail dens and loss of adults and/or young, resulting in potentially significant impacts.

The potential impacts of the proposed project do not differ substantially from those described in the 2010 HRFP Certified EIR. Tree removal associated with construction of trails and parking areas could result in direct or indirect impacts on dens of ringtails. This impact would be potentially significant. Mitigation Measure 12-6, *Implement Measures to Protect Ringtail and Bat Roosts*, requires pre-construction surveys to identify potential ringtail dens within 100 feet of proposed trail construction, and avoidance of those trees if feasible. If avoidance is not feasible, tree removal would be implemented in a way that would avoid and minimize direct and indirect impacts on ringtails. With implementation of Mitigation Measure 12-6, impacts on ringtails would be reduced to **less than significant**.

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| IMPACT 12-6 | Biological Resources—Potential Disturbance of Townsend's Big-Eared Bat and Other Bat Roosts. *Limited habitat for Townsend's big-eared bats and other bat species and bat roost sites could occur in the project area. Construction of trails, bridges, and parking facilities could result in the disturbance of maternity or winter roosts of Townsend's big-eared bat or other bat species.* |

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| Significance | *Potentially significant - (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Bat Roosts* |
| Residual Significance | *Less Than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR determined that the Townsend's big-eared bat, which is a state species of special concern, could occur within the project area. This species may use rock crevices for roosting within foothill pine–oak woodlands and riparian habitat present in the project area. Construction of trails, bridges, and structures could result in the disturbance of Townsend's big-eared bat maternity or winter roosts. This species uses rock crevices, bridges, and other artificial structures for roosting. Also, vibrations and noise associated with construction could disturb bats roosting adjacent to construction activities. This impact would be potentially significant. Implementation of Mitigation Measure 12-6 reduced this impact to a **less-than-significant** level.

## 2019 HFRP Trails Expansion Project Impact Analysis

Townsend's big-eared bat, which is a state species of special concern, could occur within the project area, as could pallid bats and western red-eared bats. Thermally stable roost sites are important habitat features for bats and can be a limiting resource for bat populations, therefore loss of these roost sites could adversely affect local bat species. Bats of solitary species, like the western red bat, typically roost alone in tree foliage year-round. However, during the maternity season, two or more female red bats and their young may be found roosting together. Maternity roosts of Townsend's big-eared bat and other bat species are sensitive to disturbance or destruction when pups are non-volant (i.e., pups that cannot fly). Likewise, disturbance of an occupied winter hibernaculum could awaken hibernating bats, depleting their energy reserves and potentially resulting in death.

Species such as Townsend's big-eared bats exhibit high roost fidelity, using the same roosts for generations, and sites offering the range of conditions required for suitable roosting habitat (e.g., thermal stability) can be narrow. CDFW considers any structure, or set of structures, used by Townsend's big-eared bat as a maternity or hibernation roost to be habitat essential for the continued existence of the species. The nearby foraging, commuting, and night roosting habitat in areas around the roost sites are also considered essential habitat for Townsend's big-eared bat (CDFW 2016).

Trees or rock outcroppings offering appropriate habitat features to support bat roosts may be present in the project area. These habitat features include large-diameter snags or trees with cavities, or large crevices and rock outcroppings that provide fissures. Construction activities that could cause temporary disturbance or permanent removal of trees or rock outcroppings that support occupied bat roosts, particularly maternity roosts or winter hibernacula for special-status species such as Townsend's big-eared bat. Such mortality would be a substantial adverse effect and could cause a local bat population to drop below self-sustaining levels. This impact would be potentially significant.

The potential impacts of the proposed project do not differ substantially from those described in the 2010 HRFP Certified EIR. Tree removal associated with construction of trails, overlooks, bridges and parking areas could result in direct or indirect impacts on bat roosts, including roosts of Townsend's big-eared bats. This impact would be potentially significant. Mitigation Measure 12-6, *Implement Measures to Protect Ringtail and Bat Roosts*, requires pre-construction surveys to identify potential bat roosts within 100 feet of proposed trail, bridge, or parking facility construction, and avoidance of those trees if feasible. If avoidance is not feasible, tree removal would be implemented in a way that would avoid, minimize, or mitigate direct and indirect impacts on bats. With implementation of Mitigation Measure 12-6, impacts on bats would be reduced to **less than significant**.

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| IMPACT 12-7 | Biological Resources—Potential Loss of Brandegee's Clarkia and other Special-Status Plant Species. *Floristic surveys did not detect the presence of Brandegee's clarkia or any other special-status plant species in the project area. Construction of the proposed project would not result impacts on special-status plant species.* |
| Significance | *Less than Significant (No new significant impact from the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None required* |
| Residual Significance | *Less than significant* |

## 2010 HFRP Certified EIR Impact Summary

Multiple populations of Brandegee's clarkia, a CNPS List 1B plant species, were observed and mapped throughout the Spears Ranch property during focused botanical surveys. Construction of trails, fuel breaks, parking areas, and Park facilities could potentially result in reductions of these populations. Most of the populations of Brandegee's clarkia occur along existing roads on roadcuts. Brandegee's clarkia is an annual plant and is somewhat tolerant to disturbance, especially if the ground disturbance occurs once the plant has dispersed its seeds in the fall. However, road widening, or trail construction has the potential to remove entire populations of Brandegee's clarkia. Therefore, this impact would be potentially significant. Implementation of Mitigation Measure 12-7 reduced this impact to a **less-than-significant** level.

## 2019 HFRP Trails Expansion Project Impact Analysis

Floristic surveys conducted in 2017 did not detect the presence of Brandegee's clarkia or any other special-status plant species in the project area, therefore the project would not result in impacts on special-status plant species.

The potential impacts of the proposed project differ from those described in the 2010 HRFP Certified EIR because no special-status plants occur in the potential impact areas within the project area. Therefore, **no significant impacts** on special-status plant species would result from construction of the proposed project, and no further surveys or mitigation is required.

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| IMPACT 12-8 | Biological Resources—Impacts on Waters of the United States and Waters of the State. *A preliminary wetland delineation identified approximately 5.6 acres of potentially jurisdictional waters of the United States and waters of the state on the project area. Although jurisdictional waters would be avoided to the extent feasible throughout project implementation, installation of stream crossings and bridges, and construction of trails and parking facilities and other improvements could result in the fill of jurisdictional waters of the United States and waters of the state, including wetlands.* |
| Significance | *Potentially significant - (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State* |
| Residual Significance | *Less Than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

As part of the final design process for the 2010 project, impacts on jurisdictional waters associated with construction of trails and parking areas would be minimized to the extent feasible. However, trail construction would require the installation of multiple stream crossings and two bridges across Raccoon Creek and other drainages. Placement of trail material or bridge footings in the drainages or in adjacent wetlands, and construction of a viewing boardwalk adjacent to one of the stock pond would fill jurisdictional waters of the United States and waters of the state. Road widening along Garden Bar Road and the access road between Garden Bar Road and the Park would also result in permanent and temporary fill of jurisdictional waters of the United States and waters of the state. Temporary and permanent impacts to waters of the United States and waters of the state from construction of project facilities and improvements to Garden Bar Road and the access road to the western parking area would be less than 0.5 acre. Because the proposed project would have an impact on waters of the United States and waters of the state, this impact would be potentially significant. Implementation of Mitigation Measure 12-2 reduced this impact to a **less-than-significant** level.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The wetland surveys were conducted (Exhibit 12-1) across approximately 154.13 acres, and of this total, 5.01 acres are features that are potentially jurisdictional waters of the United States. The study area included 1.15 aces of the Bear River, 0.48 acre of Raccoon Creek, six intermittent drainages (0.45 acre), and 17 ephemeral drainages (0.56 acre).

Construction of the expanded HFRP trail network would involve installation of culverts across intermittent and ephemeral drainages, resulting in temporary and permanent impacts. Table 12-5 summarizes the temporary impacts of project construction on waters of the US and is based on the conservative assumption that trail construction would require a 15-ft wide construction corridor.

**Table 12-5. Temporary Construction Impacts**

| Habitat Type | Trails* | Parking & Access | Total Acres |
|---|---|---|---|
| Bear River | 0.000 | 0.000 | ***0.000*** |
| Raccoon Creek | 0.000 | 0.000 | ***0.000*** |
| Intermittent Drainage | 0.034 | 0.011 | ***0.045*** |
| Ephemeral Drainage | 0.056 | 0.000 | ***0.056*** |
| Seasonal Wetland | 0.000 | 0.216 | ***0.216*** |
| ***TOTAL*** | ***0.090*** | ***0.227*** | ***0.317*** |

Source: AECOM 2019
*Impacts (assuming 15-ft wide construction corridor for trails)

Table 12-5 shows the project would result in temporary impacts of up to 0.317 acre of potentially jurisdictional waters of the United States. Of this total, permanent impacts of trail construction are estimated to be 0.297 acre. As part of the final design process for this project, impacts on jurisdictional waters associated with construction of trails and parking areas would be minimized to the extent feasible, but trail crossings of intermittent and ephemeral drainages and road construction would result in direct impacts on waters of the United States, including wetlands. Because the proposed project would have an impact on waters of the United States and waters of the state, this impact would be potentially significant.

The potential impacts of the proposed project do not differ substantially from those described in the 2010 HRFP Certified EIR. Impacts of up to 0.317 acre (temporary construction related impacts) of potentially jurisdictional waters of the United States would be a significant impact. Implementation of Mitigation Measure S12-2, or the payment of fees and incorporation of avoidance and minimization measures consistent with the PCCP if the plan were adopted prior to project construction would ensure that all waters of the United States and wetlands are replaced, restored, or enhanced on a no-net loss basis reducing impacts to **less than significant**.

Prior to construction, the County is required to obtain a verified wetland determination from USACE. Based on the results of the verified determination, the County would commit to replace, restore, or enhance on a "no net loss" basis, in accordance with USACE and the Central Valley RWQCB, the acreage of all waters of the United States and wetland habitats that would be affected by implementation of the project. Wetland restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, CDFW, and the Central Valley RWQCB, as determined during the Sections 404, 1602, and 401 permitting processes.

| | |
|---|---|
| IMPACT 12-9 | Biological Resources—Impacts on Oak Woodland Habitat. *The proposed project would result in the removal of trees that are 5 inches dbh or larger from oak woodland habitat. Native oak trees are protected under the Placer County Tree Ordinance and SB 1334.* |
| Significance | *Potentially significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S12-7: Protect Oak Woodland Habitat* |
| Residual Significance | *Less Than Significant* |

### 2010 – HFRP Certified EIR Impact Summary

Removal of trees greater than 6 inches dbh would be avoided to the extent possible by refining precise facility locations and trail alignments, and by constructing road improvements on the side of the road with the least amount of trees. However, some tree removal as a result of construction of the proposed project may be unavoidable. Fuel load reduction activities performed in the Park under the guidance of a registered forester and approved by the fire authority would not include removal of oaks larger than 6 inches dbh. This includes the establishment of shaded fuel breaks. All status oaks were avoided during trail layout within the Didion Ranch portion of the Park. In addition, a 2-year post construction survey by a qualified biologist within the Didion portion of the Park confirmed that there was negligible impact to the health of oaks adjacent to the newly constructed trail system. Similar construction methods would be used for the development of trails within the Spears Ranch Portion of the Park so that oak impacts associated with trail construction would be minimized. Although tree removal would be avoided to the extent possible, some trees greater than 6 inches dbh may need to be removed. Native trees that are 6 inches dbh or larger are protected under the Placer County Tree Ordinance and oak woodland habitat is protected under SB 1334 (2004). This impact would be potentially significant. Implementation of Mitigation Measure 12-8 reduced this impact to a **less-than-significant** level.

### 2019 HFRP Trails Expansion Project Impact Analysis

Although removal of trees greater than 5 inches dbh would be avoided to the extent possible by refining precise facility locations and trail alignments and constructing road improvements and parking facilities in areas with the fewest trees, some tree removal as a result of construction of the proposed project may be unavoidable. Fuel load reduction activities performed in HFRP and within the trail expansion areas under the guidance of a registered forester and approved by the fire authority would not anticipate removal of healthy oaks larger than 5 inches dbh. This includes the establishment of shaded fuel breaks. Native trees that are 5 inches dbh or larger are protected under the Placer County Tree Ordinance and oak woodland habitat is protected under SB 1334 (2004). This impact would be potentially significant.

The potential impacts of the proposed project do not differ substantially from those described in the 2010 HRFP Certified EIR. Construction of trails, overlooks, bridges and parking areas would minimize tree loss to the extent feasible, but some trees larger than 5 inches dbh would need to be removed. With implementation of Mitigation Measure *S*12-7, which requires compensation for tree loss by paying in-lieu fees into the County approved oak woodland preservation fund or if the PCCP is adopted prior to project construction, incorporation of avoidance and minimization measures along with payment of the development impact fee would reduce impacts to less than significant.

## 12.5 MITIGATION MEASURES

#### Mitigation Measure S12-1: Implement Measures to Protect Aquatic Habitats and the Native Fish Community

Mitigation Measure S12-1 applies to Impacts 12-1.

The County and its primary construction contractor shall implement the following measures to reduce impacts on aquatic habitats and the native fish community in the project area:

- All in-water construction activities shall be conducted during months when sensitive fish species are less likely to be present or less susceptible to disturbance (i.e., April 15 - October 15 or as directed by CDFW).

- The County shall obtain and implement the conditions of a California Fish and Game Code Section 1600 streambed alteration agreement. CDFW shall be consulted regarding potential disturbance to fish habitat, including SRA habitat, as part of the process for obtaining a streambed alteration agreement, pursuant to Section 1602 of the California Fish and Game Code. Affected habitats shall be replaced and/or rehabilitated to the extent feasible and practicable. The acreage of riparian habitat that would be removed shall be replaced or rehabilitated on a "no-net-loss" basis in accordance with CDFW regulations and as specified in the streambed alteration agreement. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to CDFW. Minimization and compensation measures adopted through the permitting process shall be implemented.

  In the event the Placer County Conservation Program is adopted prior to submittal of Improvement Plans for this project or prior to the project's own State and federal permits being obtained for effects associated with listed species and their habitats, waters of the State, and waters of the U.S., then Mitigation Measure 12-1 may be replaced with the PCCP's mitigation fees and conditions on covered activities to address this resource impact and avoidance and minimization measures as set forth in the PCCP implementation document. If PCCP enrollment is chosen and/or required by the State and federal agencies as mitigation for one or more biological resource area impacts, then the PCCP mitigation shall apply only to those species and waters that are covered by the PCCP.

- The County shall consult and coordinate with CDFW to develop regulations and limits for angling in Raccoon Creek, restrict angling activities while adult steelhead and salmon are present, and coordinate on enforcement of the area to monitor and regulate fishing activities.

Mitigation Measure S12-2: Replace, Restore, or Enhance Affected Jurisdictional Waters of the United States and Waters of the State.

Mitigation Measure 12-2 applies to Impacts 12-1 and 12-8.

- Prior to construction, the County shall obtain a verified wetland delineation from USACE. Based on the results of the verified delineation, the County shall commit to replace, restore, or enhance on a "no net loss" basis, in accordance with USACE and the Central Valley RWQCB, the acreage of all waters of the United States and wetland habitats that would be affected by implementation of the project. Wetland restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, CDFW, and the Central Valley RWQCB, as determined during the Sections 404, 1602, and 401 permitting processes.

  Authorization for the fill of jurisdictional waters of the United States shall be secured from USACE through the CWA Section 404 permitting process before any fill is placed in jurisdictional wetlands. Timing of compliance with the specific conditions of the 404 permit shall be in accordance with conditions specified by USACE as part of permit issuance. In its final stage and once approved by

USACE, this mitigation plan shall detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands function and services in the project vicinity. As required by Section 404, approval and implementation of the wetland mitigation and monitoring plan shall ensure no net loss of jurisdictional waters of the United States, including jurisdictional wetlands.

In the event the Placer County Conservation Program is adopted prior to submittal of improvement plans for this project or prior to the project's own State and federal permits being obtained for effects associated with listed species and their habitats, waters of the State, and waters of the U.S., then Mitigation Measure 12-2 may be replaced with the PCCP's mitigation fees and conditions on covered activities to address this resource impact and avoidance and minimization measures as set forth in the PCCP implementation document. If PCCP enrollment is chosen and/or required by the State and federal agencies as mitigation for one or more biological resource area impacts, then the PCCP mitigation shall apply only to those species and waters that are covered by the PCCP.

Alternatively, if the project proceeds before adoption of the PCCP or if the PCCP is not approved, the applicant may choose to utilize the Western Placer County Voluntary Interim In Lieu Fee Program (VIILF) to satisfy USACE and RWQCB mitigation requirements for the project's impacts to aquatic resources. The applicant shall be required to enter into both a Western Placer County In Lieu Fee Program Credit Transfer Agreement and an Interim Fee Credit Agreement with the County. If the VIILF is chosen, then Mitigation Measure 12-2 may be replaced with the payment of the interim fee.

- Water quality certification pursuant to Section 401 of the CWA is required as a condition of issuance of the 404 permit. Before construction in any areas containing wetland features, the County shall obtain water quality certification for the project. Any measures required as part of the issuance of water quality certification shall be implemented.

Implementation of this mitigation measure, along with Mitigation Measure 12-1 above, Mitigation Measure S5-1 in Chapter 5.0, "Soils, Geology, and Seismicity," and Mitigation Measure 11-1 in Chapter 11.0, "Hydrology and Water Quality," would reduce Impacts 12-1 and to **less-than-significant**.

Mitigation Measure S12-3: Implement Measures to Protect California Red-Legged Frog

The County and its primary contractor shall implement the following measures to reduce impacts on California red-legged frogs:

- Before any work in or within 200 feet of aquatic habitat, the County shall determine whether aquatic habitat is occupied by California red-legged frog, in consultation with USFWS. This determination may be supported by a habitat assessment for California red-legged frog prepared according to USFWS guidelines (USFWS 2005) as revised, and focused surveys if recommended by USFWS. If aquatic habitat in the project area is not occupied by California red-legged frog, there would be no impacts on this species and no further mitigation would be required.

- If aquatic habitat in the project area is occupied by California red-legged frog, the County shall minimize impacts on California red-legged frog by implementing the following measures:

- Worker awareness training shall be provided to construction crews working in California red-legged frog habitat. At a minimum, the training shall include a description of California red-legged frog and its habitat and their importance, general measures that are being implemented to conserve California red-legged frog as such measures relate to the project, and the boundaries within which construction activities shall occur.

- Suitable California red-legged frog habitat shall be surveyed 2 weeks before the start of construction activities. If California red-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only by a qualified and permitted biologist and with project-specific regulatory agency approval. If California red-legged frogs are not identified, construction may proceed.

- Exclusionary fencing (i.e., silt fences) shall be installed no more than 200 feet around all areas that are within or adjacent to California red-legged frog habitat.

- A USFWS-approved biologist shall be present at active project areas until the removal of California red-legged frog, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.

- If any work area will be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.

- Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the best management practices (BMPs) in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required."

- The County shall compensate for permanently lost habitat by developing and/or implementing a habitat creation/restoration plan for California red-legged frog. This plan shall, at a minimum, compensate for lost habitat on an acre-for-acre basis, and it shall include verifiable performance criteria and remediation measures developed with USFWS during the Section 7 consultation process.

- In the event the Placer County Conservation Program is adopted prior to submittal of improvement plans for this project or prior to the project's own State and federal permits being obtained for effects associated with listed species and their habitats, waters of the State, and waters of the U.S., then Mitigation Measure S12-3 may be replaced with the PCCP's mitigation fees and conditions on covered activities to address this resource impact and avoidance and minimization measures as set forth in the PCCP implementation document. If PCCP enrollment is chosen and/or required by the State and federal agencies as mitigation for one or more biological resource area impacts, then the PCCP mitigation shall apply only to those species and waters that are covered by the PCCP.

### Mitigation Measure S12-4: Implement Measures to Protect Foothill Yellow-Legged Frog and Northwestern Pond Turtle

The County and its contractor shall implement the following measures to reduce impacts on foothill yellow-legged frogs and northwestern pond turtles:

- Construction of foot bridges and trails across smaller drainages shall occur when the drainages are dry, to the extent feasible.

- Before any work in Raccoon Creek, the County shall determine, in consultation with CDFW, whether aquatic habitat at work sites would support foothill yellow-legged frog and/or northwestern pond turtle habitat. If no aquatic habitat for foothill yellow-legged frog or northwestern pond turtle habitat occurs at a work site, there would be no impacts on these species and no further mitigation is required.

- If aquatic habitat for foothill yellow-legged frog and/or northwestern pond turtle is present at work sites, the County shall minimize impacts on these species by implementing the following measures:

    - Worker awareness training shall be provided to construction crews working in foothill yellow-legged frog and northwestern pond turtle habitat. At a minimum, the training shall include a description of foothill yellow-legged frog and northwestern pond turtle and their habitats and their importance, general measures that are being implemented to conserve foothill yellow-legged frog and northwestern pond turtle as such measures relate to the project, and the boundaries within which construction activities shall occur.

    - Suitable foothill yellow-legged frog and northwestern pond turtle aquatic habitat shall be surveyed within 2 weeks before the start of construction activities. If northwestern pond turtles or foothill yellow-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with CDFW approval. If neither northwestern pond turtle nor foothill yellow-legged frog is identified, construction may proceed.

    - A qualified biologist holding the appropriate permits shall be present at active work sites until the removal of foothill yellow-legged frog and northwestern pond turtle, instruction of workers, and habitat disturbance have been completed. After this time, the County shall designate a person to monitor on-site compliance with all minimization measures.

    - If any work site will be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 5 millimeters. Water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion. Dewatering structures shall be removed upon completion of the project.

- Alternatively, the County may purchase credit for permanently lost habitat at an approved mitigation bank. In the event the Placer County Conservation Program is adopted prior to submittal of improvement plans for this project or prior to the project's own State and federal permits being obtained for effects associated with listed species and their habitats, waters of the State, and waters of the U.S., then Mitigation Measure S12-4 may be replaced with the PCCP's mitigation fees and

conditions on covered activities to address this resource impact and avoidance and minimization measures as set forth in the PCCP implementation document. If PCCP enrollment is chosen and/or required by the State and federal agencies as mitigation for one or more biological resource area impacts, then the PCCP mitigation shall apply only to those species and waters that are covered by the PCCP.

Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in the BMPs in Mitigation Measure 11-1, "Obtain Authorization for Construction Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures."

Mitigation Measure S12-5: Implement Measures to Protect Raptors and Other Nesting Birds

The County and its contractors shall implement the following measures to reduce impacts on raptors and other nesting birds during construction:

- If construction activities or vegetation removal, including tree and shrub removal, occurs between February 15 and August 31, a qualified biologist shall conduct surveys for nesting birds in the proposed construction area and 500 feet beyond the project construction footprint. Surveys shall be conducted no more than two weeks before the start of the activity. If no active nests are found, no further mitigation is required, unless construction activities cease for a period of 2 weeks or more. Another pre-construction survey shall be conducted as described above if a lapse in construction activities of two weeks or more occurs.

- If any active raptor nests are identified during surveys, then impacts on active raptor nests shall be avoided by establishing a buffer of 500 feet. No construction shall be conducted in the buffer area until a qualified biologist has determined that the young have fledged and that the nest is no longer active. These buffers may be reduced if a qualified biologist determines that such a reduction would not risk auditory or visual disturbance of the nest that might result in nest abandonment or nest failure nest.

- If an active golden eagle nest is located within 0.25-mile of public trails or roads that will be used during construction, the County shall:

  - Notify CDFW of the nest within one working day of discovery of the nest; and
  - Implement recommendations from CDFW to avoid disturbance to golden eagle nesting activities.

- If active non-raptor nests are detected during the pre-construction surveys, a non-disturbance buffer shall be established around the nest. The size of the buffer shall be at the discretion of the qualified biologist, but shall be sufficiently large to avoid nest disturbance that could result in reproductive failure (i.e., nest abandonment and loss of eggs and/or young). Construction activities within the buffer areas will not resume until the qualified biologist has determined the young have fledged or are no longer at risk of disturbance.

- If nests of special-status bird species (Cooper's or sharp-shinned hawks, peregrine falcons, long-eared owls, yellow warblers, yellow-breasted chat, loggerhead shrike, black rail, or tricolored blackbird colony) are detected nesting in the project area or within 500 feet of project boundaries, the County

and its contractors shall coordinate with CDFW to confirm that proposed nesting buffers are sufficient to avoid impacts on nesting activities.

- In the event the Placer County Conservation Program is adopted prior to submittal of improvement plans for this project or prior to the project's own State and federal permits being obtained for effects associated with listed species and their habitats, waters of the State, and waters of the U.S., then Mitigation Measure 12-5 may be replaced with the PCCP's mitigation fees and conditions on covered activities to address this resource impact and avoidance and minimization measures as set forth in the PCCP implementation document. If PCCP enrollment is chosen and/or required by the State and federal agencies as mitigation for one or more biological resource area impacts, then the PCCP mitigation shall apply only to those species and waters that are covered by the PCCP.

#### Mitigation Measure 12-6: Implement Measures to Protect Ringtail and Townsend's Big-Eared Bat

The County and its contractor shall implement the following measures to protect the dens or ringtails and roost sites of Townsend's big-eared bat and other bat species:

- A qualified biologist shall conduct pre-construction surveys to identify bat hibernation roosts and maternity sites and potential ringtail den sites in suitable habitat within 100 feet of proposed trails, bridges, parking areas, and firebreaks (i.e., those areas directly affected by construction). For bats, the bat roost assessment shall be conducted by a qualified biologist with experience identifying bat roosts. Bat surveys should be conducted one year in advance of proposed construction to allow for sufficient time to develop avoidance and mitigation measures in advance of construction.

- Trees and rock outcroppings to be removed shall be assessed for potentially suitable colonial roost habitat in advance of removal. The assessment shall focus on mine tunnels, caves, abandoned buildings, and trees and rock outcroppings that exhibit characteristics that provide high quality roost habitat, such as snags with apparent cavities or sloughing bark, large-diameter trees with basal hollows, large diameter trees with indications of senescence (process of deterioration with age), live trees with dead tops, and large rock outcroppings containing fissures or flakes. The survey shall also search for indications of use by ringtails and by bats in suitable roost sites (e.g., scat or guano, urine or oil staining, bat smells, audible bat noises, visible bats). Visual inspections shall be aided as appropriate by the use of spotlights, binoculars, and borescopes, and shall avoid undue disturbance to roosting bats in a sensitive state (e.g., rearing or hibernation).

- For ringtail surveys, den site surveys should focus on trees 5 inches dbh or greater in riparian areas, particularly those with cavities.

- The County shall avoid locating trails and other project features within 100 feet of potential bat roosts and ringtail dens. If avoidance is not possible, the County shall survey those locations to determine if they are occupied by the target species.

- If removal of a roost site occupied by Townsend's big-eared bats cannot be avoided, the County will consult with CDFW to determine the appropriate course of action to avoid, minimize, and mitigate for impacts on the roost before removal. The avoidance, minimization, and mitigation measures that are implemented shall meet the following standards:

- Tree removal shall be implemented with a staged approach under the guidance of a qualified bat biologist and in coordination with CDFW, with the goal of encouraging bats in residence to leave before habitat is removed. These measures could include limbing the tree a day before felling the tree; opening up the potential roost habitat to introduce disturbing airflow; introducing nighttime lighting or other disturbing elements to the roost area; or excluding bats from the habitat, either physically with the use of one-way doors, or with the use of acoustic deterrents, as practical and as approved by CDFW.

- Lost roost habitat will be replaced by either the creation of basal hollows in existing trees, or with constructed artificial roosts. The replacement roost habitat shall provide comparable habitat to the roost that is being removed, and shall be located near suitable foraging habitat, as determined by CDFW. Potential ringtail den sites may be removed only from September through April. The County's qualified biologist shall verify that the potential den is not occupied immediately before sealing it.

Mitigation Measure S12-7: Protect Oak Woodland Habitat

- Prior to any removal of significant trees (equal to, or greater than, six inches DBH or 10 inches DBH aggregate for multi-trunked trees), the project applicant shall obtain a tree removal permit from Placer County. In conjunction with submittal of a tree removal permit application, the applicant shall submit a site plan showing all protected trees proposed for removal. In accordance with Chapter 12.16.080 of the Placer County Code, the applicant shall comply with any conditions required by the Planning Services Division, which shall include payment of in-lieu fees. In-lieu fees shall be paid into the Placer County Tree Preservation Fund at $100 per DBH removed or impacted.

  In the event the Placer County Conservation Program is adopted prior to submittal of improvement plans for this project, then Mitigation Measure 6-10(a) may be replaced with the PCCP's mitigation fees and conditions on covered activities to address this resource impact and avoidance and minimization measures as set forth in the PCCP implementation document. If PCCP enrollment is chosen and/or required by the State and federal agencies as mitigation for one or more biological resource area impacts, then the PCCP mitigation shall apply only to those species and waters that are covered by the PCCP.

- The Site Plans shall include a note and show placement of Temporary Construction Fencing. The applicant shall install a four foot tall, brightly colored (usually yellow or orange), synthetic mesh material fence (or an equivalent approved by the Development Review Committee) at the following locations prior to any construction equipment being moved on-site or any construction activities taking place:

  A. Adjacent to any and all open space preserve areas that are within 50 feet of any proposed construction activity;
  B. At the limits of construction, outside the critical root zone of all trees six (6) inches DBH (diameter at breast height), or 10 inches DBH aggregate for multi-trunk trees, within 50 feet of any grading, road improvements, underground utilities, or other development activity; or,
  C. Around any and all "special protection" areas such as open space parcels and wetland features.

Mitigation Measure S5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required (see in Chapter 5.0, “Soils, Geology, and Seismicity”)

Mitigation Measure 11-1: Prepare and Implement a Grading and Drainage Plan (see in Chapter 11.0, “Hydrology and Water Quality”)

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# 13.0 PUBLIC SERVICES AND UTILITIES

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) public service and utilities findings; describes the proposed trails expansion project area (project area) environmental setting and pertinent regulations; evaluates project-related impacts associated with public services and utilities; and provides mitigation measures as necessary to reduce those impacts. Public services included in this discussion are fire protection, police protection, and public schools. Utilities and service systems included in this discussion are water supply, wastewater, and other utilities and maintenance of those public facilities. Runoff and water quality are discussed in Chapter 11.0, "Hydrology and Water Quality."

## 13.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 HFRP CERTIFIED EIR

As discussed in Section 1.2, this SEIR will consider the impacts of the proposed HFRP Trail Expansion Project and compare it against the analysis contained in the 2010 HFRP Certified EIR. The purpose is to determine whether the Trails Expansion project would substantially increase the severity of impacts previously identified in the 2010 HFRP Certified EIR, would result in a new impact not previously identified, or would require the application of mitigation measures that were previously found infeasible, and were therefore not adopted for the prior project, are currently feasible and should be incorporated into project approvals.

### 13.1.1 FINDINGS OF FACT FROM THE 2010 CERTIFIED EIR

The following is a summary of the 2010 Certified EIR findings.

- In 2010, the proposed HFRP was outside of existing municipal service areas for water and wastewater. Because no on-site water or wastewater facilities would be damaged because of HFRP implementation, and because adequate water from existing groundwater wells (constructed at the Mears entrance in 2006 and at the ranch house in 2008) and installation of septic systems for wastewater would be included for HFRP uses, the impact on water or wastewater facilities was considered **less than significant**.

- Operation of HFRP would increase the demand for solid waste disposal services. However, solid waste and wastewater generated by the project were expected to be minimal. In addition, the County would contract with Auburn Placer Disposal to provide solid waste disposal service to HFRP and the on-site sewage disposal system and/or vault system would be designed to accommodate HFRP use. Therefore, the impact was determined to be **less than significant**.

- Use of HFRP would increase demand for police services in the project area. However, because the collective efforts of the County Sheriff's Office, County maintenance staff, volunteer patrol groups and contract ranger service would reduce illegal activities, the project would not place a significant demand on existing police services. The impact was considered **less than significant**.

- Construction and use of the HFRP facilities may increase the risk of wildfire in the project area, which would increase the demand for fire services. However, with the County's implementation of fire reduction measures, including construction of fire suppression facilities, the impact on fire services was determined to be **less than significant**. Note that wildfire is evaluated in Section 16.0 of this SEIR.

- The proposed HFRP may cause an increase in demand for emergency services. However, adequate access to the proposed HFRP would be provided for emergency vehicles. Therefore, emergency response times were not expected to increase, and the impact was considered **less than significant**.

- The required relocation of utility poles adjacent to Garden Bar Road to allow improvements could cause disruptions. However, the County would minimize impacts by coordinating with utility companies. Residents would be notified, and the impact would be temporary. Therefore, the impact was considered **less than significant**.

## 13.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

This Subsequent EIR describes the physical environmental conditions of the proposed HFRP Trails Expansion Project. See Chapter 13.0 "Public Services and Utilities" of the 2010 HFRP Certified EIR for information about the existing HFRP.

### 13.2.1 WATER

The proposed Trails Expansion project is outside of existing municipal service areas for water. Water sources in the project area are groundwater for potable purposes, plus allocations of canal water for non-potable purposes (e.g., emergency water storage, landscape irrigation for parking areas). Canal water currently exists at the proposed parking areas. Potential groundwater sources in the area are rock fractures found in the existing hardpan; regional groundwater levels are expected to be greater than 50 feet in depth. For a more detailed description of water resources in the proposed project area, see Chapter 11.0, "Hydrology and Water Quality."

### 13.2.2 WASTEWATER

The proposed Trails Expansion project area is outside of existing municipal service areas for wastewater. A septic system is located at the entrance of the existing HFRP and associated underground pipelines connect the septic system to the public restroom at Mears Place. There is also a septic system associated with the ranch house (on the western portion of the existing HFRP) which has not been utilized for over 6 years. Addition of the proposed expansion project area would require three new septic systems for restroom facilities at the Garden Bar 40, Twilight Ride and Harvego parking areas or vault type restrooms if sufficient well water is not available. Septic testing conducted at each of the parking areas in 2019 identified suitable areas for leachfields for the project purposes. Additionally, the County may contract with a portable restroom vendor to place its facilities at key locations in the HFRP and expansion area for users' convenience.

### 13.2.3 OTHER UTILITIES

Pacific Gas and Electric Company (PG&E) provides electricity to most of Northern California and would supply the proposed expansion project area, as needed. Natural gas is currently not available to the project area. Propane would be an alternative to natural gas in the project area. AT&T provides telephone and communication services to the area, and the project area is within the service area of Recology Auburn Placer Disposal Service. This company provides garbage pickup services and pickup service for recyclable materials. The County currently removes all trash from the existing HFRP parking area and trails to a central collection point at its corporation yard in Auburn.

### 13.2.4 FIRE PROTECTION

The California Department of Forestry and Fire Protection's (CAL FIRE) Nevada-Yuba-Placer Unit is primarily responsible for responding to calls for firefighting in the project area. Through a Cooperative Fire Protection Agreement with CAL FIRE, Placer County Fire Department integrates state and local firefighting resources, career and volunteer, into an effective combination fire department. Through its contract with CAL FIRE, the County pays for 60 firefighters at eight, 24/7 fire stations, located in Alta, Colfax, Bowman, North Auburn, Ophir, Lincoln, Dry Creek and the Sunset Area in western Placer. At peak season, CAL FIRE staffs 18 fire stations, an air attack base, (with five year-round hand crews), five Registered Professional Foresters skilled in forest management, four lookouts, fire-prevention bureau, and a pre-fire planning office.

The existing HFRP and proposed Trails Expansion area lie within CAL FIRE Battalion 18 jurisdiction. (See Section 16.0, "Wildfire," for further discussion on wildfire issues.) Battalion 18 includes unincorporated areas within Placer County and northwest Auburn. Highway 80 borders the eastern portion of the battalion and Highway 193 comprises the southern boundary. The topography is characteristic of the Sierra Nevada foothills, containing gentle slopes in the flat valley areas and steep inner gorge canyons along upper watercourses. Vegetation consists of a mosaic of grasses, mixed brush, oak woodlands, and mixed hardwood-conifer (CAL FIRE 2018).

Two staffed Placer County Fire stations are in the Battalion 18 response area. The Atwood Station (#180) houses two engines and a ladder truck – staffing at this station allows for two of the three vehicles to be used at one time; the Ophir Station (#182) houses one engine and a water tender – staffing at this station allows for one of the vehicles to be used at a time. In the Lincoln Battatlion, Lincoln Station (#70) has one engine. In addition, the Thermalands volunteer fire station, approximately 5 miles west of the project area and the Fowler volunteer fire station, approximately 7.5 miles south, also serve the project area. CAL FIRE staffing levels are generally greater in the summer months (during fire season) and lower in winter months because of the reduced demand for fire services. Placer County Fire Department staffing levels remain consistent throughout the year.

According to the *Placer County General Plan* (General Plan), the County encourages the local fire protection agencies in the County to maintain an emergency response time of 10 minutes in rural areas of the County. National Fire Protection Association (NFPA) Standard 1710 3.3.53.1 states the national average for a first alarm assignment is 4 minutes. Within the response areas of its existing fire stations serving more than 1,000 people, the Placer County Fire Department/CAL FIRE maintains a 7-minute response time 90% of the time.

The existing HFRP has 120 acres of shaded fuel breaks and the Harvego Preserve also contains 120 acres of shaded fuel breaks. Shaded fuel breaks are areas on the tops of hills where trees have been thinned, remaining trees have been trimmed of their lower branches, and shrubs and bushes have primarily been removed. Shaded fuel breaks can be used by fire personnel to suppress wildfires. The 120 acres of shaded fuel breaks and other key areas at HFRP are grazed annually by goats and sheep to keep understory vegetation maintained. The former owner of Hidden Falls continued to graze cattle on the property following its sale to the County via a grazing lease that expired in 2013. The County intends to enter into a new lease with a rancher to reintroduce cattle grazing. Mowing, cattle, and goats/sheep are expected to continue together as complimentary components of a diversified fuels management plan, which will also continue to support the agricultural goals of the Placer Legacy Open Space and Agricultural Conservation Program (Legacy). In addition to these shaded fuel breaks, the Mears entrance has a 12,000-gallon underground water tank with hydrant for use by fire personnel. Three bridges

provide access to fire personnel across Raccoon and Deadman Creeks. Prior to the development of HFRP, there was no direct access for emergency response vehicles to the portion of the Hidden Falls property north of Raccoon Creek and Deadman Creek.

According to CAL FIRE records, there have been 14 significant fires (larger than 20 acres) within 10 miles of HFRP and the expansion area in the past 55 years. Since the opening of HFRP in 2006, there have been no known fires started by HFRP users (pers comm Hudson 2019).

As with the existing HFRP, maintenance activities would be conducted consistent with the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* (Placer County 2007) for the expansion project trail network and HFRP facilities. This plan identifies methods for managing vegetation to reduce existing fuel loads, including perimeter thinning/clearing that lowers the chance that a fire would start in the HFRP and move outside the HFRP boundary. Defensible spaces would be incorporated into the HFRP expansion project through thinning vegetation around parking lots and along trail alignments.

### 13.2.5 EMERGENCY RESPONSE

The Placer County Fire Department / CAL FIRE provides first response medical services to the existing HFRP and the expansion area, but the first point of contact for medical calls in HFRP is often the contracted ranger service. Placer County currently contracts with a private company, California Land Management (CLM), for ranger service at HFRP.[1] These rangers and County staff have radio contact with emergency services dispatch to provide initial assessments of calls and assist fire companies with locating and accessing users in need of medical aide. Rangers and County staff can aid with simple requests such as water and transportation to the parking area, which in some cases can avoid the need for response by a fire company.

For situations requiring trained EMS personnel, rangers can remain with an injured party until EMS personnel arrive. CLM keeps a ranger service call log which describes the type of ranger assist required, and whether the Sheriff's Office, CAL FIRE or Placer County Animal Control Services is involved. Out of 62 total calls for ranger assistance (e.g., for search/rescue/transport of park visitors) during the period from January 3, 2019 through August 18, 2019, CAL FIRE was asked to assist in 4 of the calls, leaving 58 calls that were completed without CAL FIRE's assistance.

Per CAL FIRE / Placer County Fire Department, overall the Atwood Station #180 responded to 3,814 calls for service totaling 5,293 vehicle responses between July 2018 and July 2019. Calls to HFRP numbered 51, or 1.3% of the total number of calls for that station. Helicopter services were used on four of the calls, or 7.8% of the total number of HFRP calls. Between 2016 and 2018, CAL FIRE/Placer County Fire Department responded to an average of approximately 39 calls at HFRP per year, with 15 being search and rescues and 24 being medical aids caused by hiking injuries or heat-related issues. As of July 2019, there had been 11 responses into the HFRP for medical service. This includes the 4 calls that park rangers assisted with, along with other instances where CAL FIRE/Placer County Fire Department was dispatched when the rangers were not available.

Medical aid responses typically require fewer resources, but search and rescue events, although more infrequent, involve more resources. Due to the remote nature of HFRP, a search and rescue scenario may require up to 3 engine companies, 1 rescue vehicle, 1 Battalion Chief, 2 Sheriff Deputies, and a rescue helicopter, along with

[1] The County Parks Division added 600 hours per year for contracted ranger staff in fiscal year 2019/2020.

ambulance services. The time involved in a search and rescue event varies between 2 and 4 hours depending on complexity. The Ophir Station and the Lincoln Station also assisted with the larger search, technical rescue, and rescue helicopter service calls. When an emergency response is required, interagency agreements dictate the availability of neighboring fire stations to respond to calls outside of their boundaries when neighboring engine companies are occupied by calls within their own borders.

The request for emergency medical response is normally the highest during the months of July through October, when the temperatures are the hottest. Unlike the three proposed new parking areas, where the return to the parking area is either downhill or relatively flat, the return to the parking lot at Mears Place requires a long hike uphill, where visitors can become dehydrated and over-exerted. The Parks Division has placed a video on the HFRP website, cautioning people to bring lots of water, wear appropriate clothing, and to remember that the return to the parking lot requires an uphill trek. The County is working with CAL FIRE /Placer County Fire Department to improve radio communication systems between the two entities in order to better analyze the response needed and lower the resource intensity needed from CAL FIRE/Placer County Fire Department both at HFRP and for the proposed Trails Expansion areas. Parks staff works continuously to improve education emphasizing preparedness for the steep terrain and heat associated with HFRP, especially in summer months when most of the emergency response is required to treat heat sickness and exhaustion.

### 13.2.6 POLICE PROTECTION

Law enforcement services for the HFRP are provided by the County Sheriff's Office, which will also provide service to the proposed Trails Expansion project area. The main station is located in Auburn. The Sheriff's Office also operates two substations and two "service centers." The closest substation to the project area is in Colfax. The service centers are in Foresthill and Loomis. The nearest facility to the project area that provides full police protection services is the Auburn station. The County Sheriff's Office capabilities include: air operations to provide helicopter support services, a K-9 unit, search and rescue, and special enforcement, which is a small group of highly trained and specially equipped Deputies introduced into crisis situations to safely and efficiently resolve them. County policy 4H-2 sets a response time goal of 15 minutes to a call for service in rural areas of the County and 20 minutes for a remote rural area of the County.

Of the logged responses from contracted ranger staff from January 2019 through August 2019, the Sheriff's Office assisted with their dispatch services 12 times, but were physically needed on site only one time during that 8-month period. Crimes reported for the year 2019 located within one mile of the HFRP Mears entry include one vehicle break in and theft, both of which were reported outside the HFRP boundary (Crime Mapping 2019).

## 13.3 REGULATORY SETTING

### 13.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

#### SAFE DRINKING WATER ACT

Proposed project features include groundwater wells for domestic supplies, emergency response and landscape irrigation. Under the Safe Drinking Water Act (Public Law 93-523), passed in 1974, the EPA regulates contaminants of concern to domestic water supplies. Contaminants of concern that are relevant to domestic water supplies are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by the EPA national primary and national secondary drinking water

regulations. Maximum contaminant levels (MCLs) are set for all contaminants of concern. MCLs and the process for setting these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking-water MCLs.

The EPA has delegated to DHS the responsibility for administering California's drinking-water program. DHS is accountable to the EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by the EPA.

Title 22 of the California Code of Regulations (Article 16, Section 64449) defines secondary drinking-water standards that are established primarily for reasons of consumer acceptance (i.e., taste), rather than because of health issues. For mineralization (i.e., total dissolved solids and chloride), the secondary standards are expressed in the form of recommended, upper, and short-term MCLs. The recommended, upper, and short-term MCLs for total dissolved solids are 500, 1,000, and 1,500 milligrams per liter, respectively.

## 13.3.2 State Plans, Policies, Regulations, and Laws

### State Strategic Fire Plan

Public Resources Code Sections 4114 and 4130 authorize the State Board of Forestry and Fire Protection (Board) to establish a fire plan which, among other things, establishes the levels of statewide fire protection services for State Responsibility Area (SRA) lands. The 2010 Strategic Fire Plan (Plan) is the first statewide fire plan developed in concert between the Board and CAL FIRE. The Plan builds upon the concept first developed in the 1996 California Fire Plan and includes goals and objectives that along with implementation of the Plan will assist communities in their fuel reduction and fire safety efforts to become more resilient to the damaging effects of catastrophic wildfire while recognizing fire's beneficial aspects.

### Safe Drinking Water Act

The State Water Resources Control Board (SWRCB) manages all water rights and water quality issues in California under the terms of the Porter-Cologne Water Quality Control Act (1969). The California Department of Health Services (DHS) has been granted primary enforcement responsibility for the Safe Drinking Water Act (SDWA). Title 22 of the California Administrative Code establishes DHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

### Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy)

Adopted by the State Water Resources Control Board (SWRCB) on June 19, 2012, this policy establishes a statewide, risk-based, tiered approach for the regulation and management of onsite wastewater treatment system(s) (OWTS). In accordance with Water Code § 13290 et seq., the OWTS Policy sets standards for OWTS that are constructed or replaced, that are subject to a major repair, that pool or discharge waste to the surface of the ground, and that have affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking water or other uses, or cause a health or other public nuisance condition. The OWTS Policy also includes minimum operating requirements for OWTS that may include siting, construction, and performance requirements; requirements for OWTS near certain waters listed as impaired under § 303(d) of the Clean Water Act; requirements authorizing local agency implementation of the requirements; corrective action requirements;

minimum monitoring requirements; exemption criteria; requirements for determining when an existing OWTS is subject to major repair, and a conditional waiver of waste discharge requirements.

The Regional Water Quality Control Boards incorporate the standards established in the OWTS Policy, or standards that are more protective of the environment and public health, into their water quality control plans. Implementation of the OWTS Policy will be overseen by the State Water Board and the regional water quality control boards, and local agencies (e.g., county and city departments and independent districts) have the opportunity to implement local agency management programs if approved by the applicable regional water quality control board.

#### LOCAL AGENCY MANAGEMENT PLAN (LAMP)

The SWRCB OWTS Policy provides a multi-tiered strategy for management of OWTS in California. A LAMP is prepared to allow a local agency to obtain approval for OWTS management under Tier 2 of the state OWTS Policy. As such, it is intended to allow the local agency to continue providing local oversight of OWTS by implementing practices that: (a) are suited to the conditions in the planning boundary; (b) meet or exceed the environmental protections of the "default" siting and design requirements for OWTS identified in Tier 1 of the SWRCB Policy; and (c) ensure the best opportunity for coordinated and comprehensive management of OWTS, public health and water quality.[2]

#### CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT – ASSEMBLY BILL 939

Enacted by the California Legislature in 1989, the goal of the California Integrated Waste Management Act (IWMA) is to reduce solid waste disposal at landfills and to ensure an effective and coordinated system for safe management of all solid waste generated within the state. The IWMA established a hierarchy of preferred waste management practices which include:

1) Source reduction;
2) Reuse of resources;
3) Recycle and compost;
4) Environmentally safe disposal by transformation or landfill.

It addresses all aspect to solid waste regulation including the details regarding the lead enforcement agency's requirements and responsibilities, the permit process including inspections and denials of permits, enforcement, and site clean-up and maintenance.

### 13.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 2013) for public services.

2 State Water Resources Control Board's (SWRCB) Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems, dated June 19, 2012

**GOAL 4.D:** The County shall require wastewater conveyance and treatment facilities that are enough to serve the Placer County General Plan proposed density of residential, commercial, and public/institutional uses in a way which protects the public and environment from adverse water quality or health impacts.

- **Policy 4.D.11.** The County shall permit on-site sewage treatment and disposal on parcels where all current regulations can be met and where parcels have the area, soils, and other characteristics that permit such disposal facilities without threatening surface or groundwater quality or posing any other health hazards.

- **Policy 4.D.12.** The County shall require that the on-site treatment, development, operation, and maintenance of disposal systems complies with the requirements and standards of the County Environmental Health Division.

- **Policy 4.D.13.** The County shall continue use of current technically-based criteria in review and approval of septic tank/leachfield systems for rural development.

**GOAL 4.H:** To provide adequate law enforcement services to deter crime and to meet the growing demand for services associated with increasing population and commercial/industrial development in the County.

- **Policy 4.H.2.** The County Sheriff shall strive to maintain the following average response times for emergency calls for service:

  a. 6 minutes in urban areas
  b. 8 minutes in suburban areas
  c. 15 minutes in rural areas
  d. 20 minutes in remote rural areas

**GOAL 4.I:** To protect residents of and visitors to Placer County from injury and loss of life and to protect property and watershed resources from fires.

- **Policy 4.I.1.** The County shall encourage local fire protection agencies in Placer County to maintain the following minimum fire protection standards (expressed as Insurance Services Office (ISO) ratings):

  a. ISO 4 in urban areas
  b. ISO 6 in suburban areas
  c. ISO 8 in rural areas

- **Policy 4.I.2.** The County shall encourage local fire protection agencies in the County to maintain the following standards (expressed as average response times to emergency calls):

  a. 4 minutes in urban areas
  b. 6 minutes in suburban areas
  c. 10 minutes in rural areas

- **Policy 4.I.3.** The County shall require new development to develop or fund fire protection facilities, personnel, and operations and maintenance that, at a minimum, maintains the above service level standards.

- **Policy 4.I.6.** The County shall continue to promote standardization of operations among fire protection agencies and improvement of fire service levels.

- **Policy 4.I.11.** The County shall encourage local fire protection agencies to provide and maintain advanced levels of emergency medical services (EMS) to the public.

#### EXPANSION AREAS – FUELS AND RANGE MANAGEMENT PLAN

Within the properties owned by the Placer Land Trust, it serves as the land management entity, with the County providing land management within the trail corridors. The County will be the land manager for properties it owns or areas where it has easements. PLT works with Placer County Fire Department/Cal FIRE and others on a fuel load management approach with the goal of reducing the threat of catastrophic fire. This includes forest management/fuel load reduction, including clearing defensible spaces, creating fire breaks, and maintaining access roads. Existing ranches would continue to operate and include grazing, livestock watering and feeding, and ranch road maintenance. The County will conduct maintenance within the trail easements to keep down vegetation and maintain trail pathways and maintenance access roads, as well as within the parking areas and entrance access roads. The following fire prevention measures, derived from the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan*, apply to the trails expansion project area and would be implemented by the County.

#### Recommendations:

- Create defensible space around the perimeter of the developed parking/improvement areas, adjacent to the main vehicle-access road system, including HFRP and Trails Expansion area maintenance/emergency access roads, and around HFRP and trails expansion area improvements such as buildings, overlooks, bridges, etc., as they are planned and built.

- Develop a maintenance program for maintaining all defensible space and fire-safe areas.

## 13.4 IMPACTS

### 13.4.1 ANALYSIS METHODOLOGY

Potential impacts on water, wastewater, fire protection, police protection, public schools, and other public services that would result from the proposed project were identified by comparing existing service capacity and facilities against anticipated future demand associated with implementation of the proposed project. The analysis considered the application of all adopted mitigation measures from the prior environmental review when making the impact determinations presented below in Section 13.4.3, “Impact Analysis.” This analysis also considered how the additional lands in the trails expansion areas would or would not change the conclusions of the prior environmental review.

## 13.4.2 THRESHOLDS OF SIGNIFICANCE

### CEQA THRESHOLDS

Thresholds for determining the significance of impacts on public utilities and services were based on the Placer County CEQA checklist and Appendix G of the State CEQA Guidelines. The project would have a significant impact on public services or utilities if it would:

**Utilities:**

- have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals;
- not comply with federal, state, and local management and reduction statutes and regulations related to solid waste;
- result in a determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; or,
- require or result in the relocation or construction of new or expanded water or wastewater treatment or stormwater drainage facilities, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

**Public Services**:

- result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable ratios, response times, or other performance objectives for any of the public services (i.e., fire, police, schools, parks, and other public facilities).

### ISSUES NOT ANALYZED FURTHER

Because the proposed Trails Expansion Project will not operate at night there will be minimal electricity and no natural gas requirements, and cell phone service is available at each of the three new trailheads, the proposed project would not result in demand for natural gas, electricity, or communication systems that require construction of new facilities that result in physical impacts. Therefore, increased demand for these services are not evaluated further.

## 13.4.3 IMPACT ANALYSIS

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| IMPACT 13-1 | Public Services and Utilities—Potential for project operation to require construction or relocation of new facilities for provision of water or wastewater. *The existing HFRP and proposed Trails Expansion project are outside of existing municipal service areas. Implementation of the Trails Expansion project would include the installation of public wells and septic systems at the Garden Bar 40, Twilight Ride and Harvego Bear River Preserve entrances, for a total of three additional public wells and three additional septic systems and associated restroom buildings. If suitable groundwater is not available for a public well at the proposed parking areas, permanent vault-type restroom facilities may be provided. Prior to permanent restrooms being constructed, the entrances may utilize portable toilets. In addition, portable toilets may be provided to users at key locations throughout HFRP and the Trails Expansion area. The environmental impacts associated with construction of the new wells and septic systems are evaluated throughout this SDEIR.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The HFRP project area is outside of existing municipal service areas for water and wastewater. A groundwater well at the Mears entrance parking area was installed in 2006 and was certified as a public well by the State of California in 2007. The septic system and permanent restrooms were also constructed at the Mears entrance in 2006. The private well near the ranch house on the west side of the property was upgraded to a public well in 2008. Water for irrigation would continue to be supplied by the Nevada Irrigation District canal on the property, and irrigation needs were expected to be like past irrigation patterns. Any reservation-based events that would exceed the capacity of on-site wells would be required to supply their own water.

The 2010 project included permanent restroom facilities at the ranch house. The existing septic system constructed to serve the ranch house would be either used as is, expanded, or replaced, depending on its condition and capacity needs for the future use of the ranch house. Because the septic system did not support public use, it would need to be expanded or replaced by another septic system that could better serve the proposed uses around the ranch house. In addition, a new septic system would be installed to serve the parking-area restroom located at the entrance of the HFRP on the Garden Bar side. Because no on-site water or wastewater facilities would be damaged because of the project and adequate water and wastewater facilities would be included for proposed uses, this impact was determined to be **less than significant**.

### 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The Trails Expansion project area is outside of existing municipal service areas for water and wastewater. The proposed new trails would be outfitted with facilities and amenities like those in the existing HFRP. These would

include drinking water fountains, equestrian features (e.g., horse watering, hitching posts), restrooms, and minimal landscaping and irrigation. Supporting utilities would be constructed as the trail network expands, including three public wells (at the Garden Bar 40, Twilight Ride, and Harvego parking areas), pipelines, and irrigation systems. The proposed expansion project would also add additional permanent restroom facilities and associated septic systems at the Garden Bar 40, Twilight Ride, and Harvego parking areas. Restroom facilities would use low-flow toilets to reduce the use of water within the HFRP. If adequate groundwater is not available for flush restrooms, vault-style permanent restrooms may be constructed instead. Prior to construction of permanent restrooms, portable toilets may be utilized. Portable toilets may also be used at key spots throughout the expanded trail system.

In 2015, and as a result of the ongoing drought in California, the existing HFRP well was no longer meeting the quantity of water necessary for the HFRP public water system and subsequently was shut down until an approved alternative water supply could be secured. With the increased rains in recent years, the well may be able to placed back in service, pursuant to Environmental Health approval. If it is found that the well is not usable in its current state, it would need to be reconstructed and/or deepened with a resulting increased yield. If it is determined that the existing well cannot be placed back into service, it will need to be destroyed in accordance with the DWR California Water Works Bulletins 74-81 and 74-90. A licensed well driller would be required to assess well locations and alternatives. If the existing well is destroyed, it would be replaced by another well that could better serve the HFRP. If rehabilitation or relocation is not feasible, the existing restrooms would be converted to vault type restrooms such as those used throughout the Auburn State Recreation Area trail system. Since 2015, the existing 12,000-gallon water storage tank at the Mears Place parking area has been monitored and re-filled as necessary using a water truck.

Because adequate water and wastewater facilities would be included for proposed uses, this impact would be **less than significant**.

The proposed trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to water or wastewater based on changes in the project, circumstances or new information.

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| IMPACT 13-2 | Public Services and Utilities—Increase in Demand for Police Services. *Implementation of the proposed trails expansion project could increase demand for police services. The potential increase in demand would be addressed through management strategies, including, but not limited to, limiting operating hours to daylight hours only, controlling the number of visitors to the expansion areas on high volume days through the use of parking reservations, and proportionately increasing the number of ranger staff and County Parks maintenance staff on site to match the increase in trail acreage.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 approval acknowledged that the inclusion of the Spears portion to the HFRP project would lead to an increase in the number of visitors to the project area, which is located in a rural area. HFRP use would occur primarily from sunrise to sunset, with limited overnight use on the western side of the park, subject to County approval. The increased visitation could add to existing law enforcement demands in the area; however, oversight of the HFRP would be provided through the collective efforts of the County Sheriff's Office, County maintenance staff, contracted Ranger services, volunteer patrol groups, and users of the trails and facilities. It was also expected that a full-time caretaker could live on the HFRP grounds, which was expected to reduce the number of incidents of vandalism, crime, and misuse of HFRP property. Since 2013, the County has contracted with a ranger patrol service. Rangers and County Parks staff are in constant contact with Sheriff dispatch through radio communication and are utilized by dispatchers to assess reported incidents, provide reports, and respond to simple needs such as providing water, directions, and transport. In addition, the HFRP would be closed at night and all gates on access roads to the park would be locked to further deter unauthorized activities. Because the collective options for HFRP patrol would reduce illegal activities, the project was determined to not place a significant demand on existing police services. Therefore, this impact was considered **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Implementation of the proposed trails expansion project would increase the number of visitors to the existing HFRP as well as the Trails Expansion areas but would disperse the parking levels among the existing parking lot on Mears Place and the three new parking areas. Primary uses for the Trails Expansion area would include hiking, biking, and equestrian uses, as well as educational programs and educational field trips that are consistent with passive recreation and education. Public use within the expansion areas would be limited to the time between sunrise and sunset – all entrance gates would be closed and locked after hours. Unlike the existing HFRP, the trail expansion areas would not be suitable for scouting or other types of camping trips or large events. These types of amenities are not envisioned for the trail expansion area.

Service call logs prepared by the County's contracted California Land Management (CLM) ranger service from January 3, 2019 through August 18, 2019 note that the majority of the service calls were handled by CLM. Of the 62 ranger assists (e.g., where a ranger was needed for search/rescue/transport of a visitor), only one incident required the on-site assistance of a Placer County Sheriff's Officer and twelve other instances required the services of the Sheriff's dispatch operator only. The increased visitation could add to existing law enforcement demands in the area. However, oversight of HFRP and the proposed trails expansion areas would continue to be provided through the collective efforts of the contracted ranger services, County Parks maintenance staff, County Sheriff's Office, and users of the trails and facilities. A potential full-time caretaker on the existing HFRP grounds is currently allowed under the Conditional Use Permit, and the Twilight Ride property may also have a caretaker in the future. This oversight provides eyes on the ground that serve as a deterrent to criminal behavior. Additionally, the number of visitors allowed is restricted based upon the number of parking spaces, and is limited on high-volume days through use of the reservation system, so the County has the ability to regulate the number of visitors that use the site on a daily basis. Gates at each of the proposed entrances would be closed and locked on a nightly basis, and nighttime access to proposed trailheads and parking lots would not be allowed. Rangers currently ensure all visitor vehicles have left the parking area each evening prior to locking the gate. Because the collective options for oversight would reduce illegal activities, the County is able to control the number of visitors, and the operating hours are limited to daytime use only; County Sheriff's Office current staffing levels

would be able to accommodate any potential increase in the number of calls for service. Therefore, there would not be a significant increased demand on police protection such that construction of new Sheriff's facilities is required. This impact would be **less than significant**.

The proposed trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects related to an increased demand for police services based on changes in the project, circumstances, or new information.

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| IMPACT 13-3 | Public Services and Utilities—Increase in Demand for Fire and Emergency Medical Services. *Construction and use of trails expansion facilities will likely increase calls to provide emergency medical response and may increase the need for fire services at the proposed trail expansion areas because more people would be allowed into areas that are not currently open to the public, with the exception of ongoing docent-led tours. However, the project improvements as well as a mitigation measure would reduce the potential for a fire within the proposed project area and enhance access to park areas for emergency response vehicles. With inclusion of the project improvements and mitigation measure, the expansion project is not expected to cause a significant increase in demand for fire services and emergency medical response calls such that construction of new fire stations is required. (Information on wildfire is also included in Section 16.0.)* |
| Significance | *Potentially Significant (New Impact not previously considered by the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S13-1 – County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department / CAL FIRE* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

The 2010 Certified EIR described the HFRP as being within a State Responsibility Area (SRA) where CAL FIRE's Nevada-Yuba-Placer Unit is primarily responsible for responding to wildland fires. The park is rated as moderate and high on the Fire Hazard Severity Map (see Exhibit 16-2). It was noted in the 2010 Certified EIR that there was a potential for wildfire to occur during construction if equipment such as a trail dozer or mini excavator generates sparks near vegetation in construction areas. Depending on the equipment required for HFRP maintenance, equipment-related fire risks could persist. Equipment use during high fire declaration would be restricted until the threat has lessened. The Spears Ranch portion of the project area would also be opened to public use and the HFRP would allow campfires in association with overnight educational or scout camps. However, campfires would be restricted to designated fire pits in a developed campground area and allowed under restricted conditions and in consultation with CAL FIRE on local conditions.

The 2010 HFRP project included fire suppression facilities, including a hydrant system, a 12,000-gallon emergency water storage system, three helipads, and three emergency access bridges over Raccoon and Deadman Creeks. The existing HFRP has 120 acres of Shaded Fuel Breaks (SFBs). The 120 acres of SFB at HFRP, as well as other key areas of the property, are mowed or grazed annually by goats and sheep to keep the lower vegetation

maintained. In addition, the County implements recommendations included in the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* and complies with all laws, plans, policies, and regulations related to fire safety and wildfire suppression identified in Section 13.3, "Regulatory Setting."

It was determined that although the project could increase the potential risk of wildfire in the HFRP project area, implementation of various measures would improve CAL FIRE/Placer County Fire Department's ability to respond more quickly to fires and would reduce the severity and size of potential fires. Therefore, the project was not expected to cause a significant increase in the demand for fire services. This impact was considered **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

Section 16.0, "Wildfire," discusses the potential to increase wildfire risk, which could lead to an increased demand for fire services during construction, maintenance, and ongoing public use. Due to a number of factors discussed in Section 16.0, it was deemed that this potential to exacerbate fire risk was considered less than significant with the proposed project's components and with the inclusion of mitigation measures. Project components include the construction of emergency access roads and bridges, the maintenance of shaded fuel breaks and defensible spaces, and the inclusion of 12,000-gallon water tanks and helicopter landing zones at each of the three new parking areas. Mitigation measures include purchasing a Light Rescue Vehicle (LRV) for fire department use, curtailing certain construction and maintenance activities during high-risk wildfire periods, and providing an on-site source of water during certain construction and maintenance activities. As a result, it has been determined that the benefits of the project would offset any potential increase in the risks of wildfire. In addition, smoking, campfires, and motorized vehicles will be prohibited within the expansion areas with the exception of emergency medical or ranger services, maintenance, and landowner needs. These elements are consistent with the Nevada-Yuba-Placer Unit Strategic Fire Plan, and more specifically, Goal 4: to "Implement local and landscape projects and programs that decrease fire risk and increase the potential for success on initial attack." Fuel breaks and defensible space will reduce fire risk; and emergency access roads, bridges, water tanks, and helicopter landing zones will increase the likelihood of success on an initial attack.

The proposed Trails Expansion Project could increase the need for emergency response services in proportion to the number of new patrons visiting the expanded trails network. The emergency services provided by Placer County Fire Department / CAL FIRE for the current 1,200-acre HFRP includes emergency medical services (EMS), search and rescue (SAR), structural and wildfire firefighting, preventive search and rescue (PSAR), and all-hazard incident management operations. Emergency calls, mainly for heat-related injuries, have increased over the years as public visitation has increased. During peak fire seasons in 2016, 2017, and 2018, there was approximately 15 search and rescues and approximately 24 medical aids each year caused by hiking injuries or heat-related issues. These types of incidents generally occur during CAL FIRE peak fire season, which reduces the availability of resources during fire season. The addition of HFRP trails expansion facilities, including the three parking areas (Garden Bar 40, Harvego, and Twilight Ride) will likely lead to more calls for service.

The County currently contracts with California Land Management (CLM) for ranger services for the existing HFRP. CLM provides first-responder assistance for visitors' minor medical needs, including providing water and transportation to the parking lot for visitors who may have become over-exerted, thus substantially reducing the number of calls to Placer County Fire Department / CAL FIRE for medical assistance. In cases where the services of trained EMS staff are needed, rangers also provide assistance by waiting with the injured party and directing

Placer County Fire Department / CAL FIRE personnel to the site. For the proposed trail expansion project, the County would increase the ranger services proportionally with the increase in trail area and number of parking access areas.

Emergency access roads into the trail expansion areas will provide enhanced access for emergency services. Emergency access to the expansion areas would be provided via Curtola Ranch Road, Bell Road, and Garden Bar Road to each of the proposed parking lots, which would serve as gathering points for emergency responders. Each parking area is planned with an emergency helicopter landing zone, and a 12,000-gallon water tank with hydrant for fire suppression. The two bridges planned as part of the expansion project would also help response times by providing additional emergency access across Raccoon Creek.

In order to mitigate potential impacts on emergency service calls, and given the limited access to some portions of the trails expansion project area by larger fire engines, combined with the diverse scenarios that may be needed for response to wildfire, Placer County will fund the purchase of one light rescue vehicle (LRV) for use by the Placer County Fire Department / CAL FIRE. This vehicle would be purchased prior to completion of Phase 1 improvements to the Twilight Ride entrance. An LRV is comprised of a specialized vehicle body on a full-sized pickup truck chassis, which allows the vehicle to reach more remote areas of rural property than full-sized fire engines. The LRV will be equipped with apparatuses for extinguishing wildfires in their early stages, and equipment for rescue and medical aid. With the County's purchase of one LRV, Placer County Fire Department / CAL FIRE will have a more versatile emergency services/fire vehicle that will be able to navigate further into the expansion areas. Although the County would be purchasing the LRV to address any potential additional emergency calls from the Trail Expansion areas, the vehicle will also be available for a variety of emergency response calls within the greater North Auburn/Ophir areas served by the Placer County Fire Department / CAL FIRE.

Overall, the project will improve access to a rural area by constructing new emergency/maintenance roadways, trails, and bridge crossings over Raccoon Creek where they do not presently exist. Although the trail expansion project may result in an increased demand on emergency services, with the inclusion of the additional landing zones, water tanks, and emergency access roads and bridges, as well as a proportional increase in ranger staff to attend to minor medical service calls proposed as part of the project description, as well as the addition of Mitigation Measure S13-1 to provide a new LRV, emergency responders will have better access to trail expansion areas. While project operation would increase the demand for service, with incorporation of the project features and application of mitigation, the increased demand could be accommodated without the construction of new fire station facilities that may cause physical impacts. Impacts of the proposed project would be **less than significant**.

IMPACT 13-4 Public Services and Utilities—Increase in Emergency Response Times and Need for Expanded Facilities. *The proposed expansion project could cause an increase in emergency response times by redirecting resources to address calls within the Trail Expansion areas, leaving fewer staff to address calls for service elsewhere. However, project components would serve to reduce time spent on the site and minimize the need to call for service. The project would provide improved access for emergency vehicles to navigate remote areas of the County, emergency helicopter landing zones would be provided at each parking area, and a Light Rescue Vehicle would be purchased for Placer County Fire Department/CAL FIRE to assist with medical calls not only within HFRP and the Trail Expansion areas, but also within the greater North Auburn/Ophir areas served by the Placer County Fire Department/CAL FIRE. Additionally, contracted ranger services would be proportionately increased with the increase in*

*the trails network in order to assist with minor emergency service calls that do not require the attention of trained EMS staff. Mitigation Measure S13-1, which requires the purchase of a Light Rescue Vehicle for Placer County Fire Department/CAL FIRE, would assist with medical calls not only within HFRP and the Trail Expansion areas, but also within the greater North Auburn/Ophir areas served by the Placer County Fire Department/CAL FIRE. With the implementation of these project components and mitigation measure, there would not be a significant increase in demand for emergency services nor a significant increase in current emergency response times that would require the construction of new fire station facilities.*

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| Significance | *Potentially Significant (New Impact not previously considered by the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | Mitigation Measure S13-1 – County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE. |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

In the Certified 2010 EIR, it was determined that the HFRP project may cause an increase in demand for emergency services. However, adequate access to the proposed HFRP would be provided for emergency vehicles. The existing HFRP includes three helicopter landing zones spread throughout the HFRP for emergency use. Emergency access bridges would be provided to provide emergency access across Raccoon Creek. Additional emergency access to portions of the HFRP would be available via Mears Drive and trails within the Didion Ranch portion of the HFRP. The County would also provide 2 weeks notification to Placer County Fire Department/CAL FIRE of any events that would have greater than 30 vehicles and/or between 100 and 200 participants to allow for improved emergency response, if needed. This impact was considered **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The proposed Trails Expansion project could increase emergency response times for individual incidences if two calls occur at the same time and resources are deployed at the Trails Expansion area for any reason. The expansion of the trail network would lead to increased numbers of visitors, which could result in an increase of service calls in proportion to the number of new visitors. According to the Placer County Fire Department / CAL FIRE logs, responses to HFRP currently represent approximately 1.3% of the total call volume of the Atwood station #180. According to the *Placer County General Plan* (General Plan), the County encourages the fire protection agencies in the County to maintain an emergency response time of 10 minutes in rural areas. National Fire Protection Association (NFPA) Standard 1710 3.3.53.1 states the national average for a first alarm assignment is 4 minutes. Within the response areas of its existing fire stations serving more than 1,000 people, the Placer County Fire Department maintains a 7-minute response time, 90% of the time.

The emergency services provided by Placer County Fire Department/CAL FIRE for the existing 1,200-acre HFRP includes emergency medical services (EMS), search and rescue (SAR), structural and wildfire firefighting, preventive search and rescue (PSAR), and all-hazard incident management operations. Emergency calls, mainly for injured visitors, have increased over the years as public visitation has increased. During the peak fire seasons

in 2016, 2017, and 2018, there was an average of approximately 15 search and rescues and approximately 24 medical aids each year caused by hiking injuries or heat related issues. These types of incidents generally occur during Placer County Fire Department/CAL FIRE peak fire season, which reduces the availability of resources during fire season. The addition of HFRP trails expansion facilities, including the three parking areas (Garden Bar 40, Harvego, Twilight Ride) will likely lead to more calls for service and could potentially impact the ability to provide services in other parts of the County.

The County is working with Placer County Fire Department/CAL FIRE to improve radio communications systems between the two entities in order to lower the resource intensity needed from Placer County Fire Department/CAL FIRE both at HFRP and for the proposed Trail Expansion areas. In addition, emergency access to the expansion areas would be provided via Curtola Ranch Road, Bell Road, and Garden Bar Road to each of the proposed parking lots, which would serve as gathering points for emergency responders. Each parking area is planned with an emergency helicopter landing zone and a 12,000-gallon water tank with hydrant for fire suppression. Emergency access roads and bridges would increase the ability of emergency responders to quickly reach injured people. Wayfinding signage will be provided within the expansion areas to assist with identifying emergency incident locations.

As noted above, Mitigation Measure S13-1 requires the County to purchase a Light Rescue Vehicle for the Placer County Fire Department/CAL FIRE prior to the public opening of the Twilight Ride parking area. With the County's purchase of one LRV, Placer County Fire Department/CAL FIRE will have a more versatile emergency services/fire vehicle that will be able to navigate further and more quickly into the expansion areas. Although the County would be purchasing the LRV to address any potential additional emergency calls from expansion areas, the vehicle will also be available for a variety of emergency response calls within the greater North Auburn/Ophir areas covered by the Placer County Fire Department/CAL FIRE, which will help reduce response times for certain incidents throughout the communities.

The two bridges planned as part of the expansion project would help response times within the park and trail expansion areas by providing additional emergency access across Raccoon Creek. The project will improve access to a rural area by constructing new emergency/maintenance roadways, trails, and bridge crossings over Raccoon Creek where they do not presently exist. Additionally, contracted ranger services provide a vital service for the existing HFRP and their services will be proportionally increased to provide ranger service for the trail expansion areas. Currently, contract ranger services provide visitor assistance with minor medical service calls, mainly for visitors who may have become over-heated or who need assistance returning to the parking area. These types of visitor assistance from the County's contracted rangers help to reduce the calls to the Placer County Fire Department/CAL FIRE for medical services. If an injured party requires more advanced medical treatment from professional emergency responders, rangers can remain with an injured party until emergency medical responders arrive.

Although the trail expansion project may result in an increased demand on emergency services, with the new LRV supplied by the County and the additional landing zones, water tanks, and emergency roadways, as well as a proportional increase in ranger staff to attend to minor service calls, this impact would be **less than significant**.

None of the beneficial elements (roadways, water tanks, LRV, fuel breaks/defensible space) are found to have a significant impact on the environment and therefore the project is not expected to result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction

of which could cause significant environmental impacts in order for public services to maintain acceptable ratios, response times, or other performance objectives.

The proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects related to fire station facilities and response times based on changes in the project, circumstances or new information.

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| IMPACT 13-5 | Public Services and Utilities—Temporary Disruption of Utility Service during Construction. *Implementation of the HFRP trails expansion project could require the relocation of utility poles that are adjacent to Garden Bar Road. Relocation of utility poles could cause temporary disruptions in service.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP CERTIFIED EIR IMPACT SUMMARY

Aboveground utility poles carrying electricity and telephone/communication lines are located along the length of Garden Bar Road. These utility lines serve the residences along Garden Bar Road and are maintained by PG&E and AT&T. Road improvements to Garden Bar Road could include some areas of widening that would require relocation of adjacent utility poles. Utility poles may need to be relocated outside the footprint of the road improvements. Electrical and/or telephone service could be disrupted during relocation of these poles. Potential disruption of utility services during construction activities would be temporary. In addition, the County would coordinate utility relocation as part of the construction to avoid disruption. Therefore, before road improvements begin, the County would consult with PG&E and AT&T to determine the best course of action to avoid or minimize disruption of electrical and/or telephone service. If disruptions in service cannot be avoided, the utility providers would notify all residences that would be affected. The 2010 Certified EIR concluded that this impact would be **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

Utility poles carrying above-ground electricity and telephone/communication lines are located along the length of Garden Bar Road, Bell Road, and Curtola Ranch Road. Like HFRP, proposed facilities (e.g. the restrooms and drinking fountains) will require electricity for security lighting, to supply well water for potable uses, and to fill the water tanks at the parking areas. Extension of electric service to these facilities and well locations could require a temporary disruption of service while power lines are connected to the existing network. This activity would require coordination with PG&E and AT&T to determine the best method to extend service to the project while minimizing disruption of service to existing customers. If disruptions in service cannot be avoided, the utility providers would notify all residences that would be affected. This impact would be **less than significant**.

The proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects related to temporary disruption of utility service during construction based on changes in the project, circumstances or new information.

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| IMPACT 13-6 | Public Services and Utilities—Increase in Solid Waste and Wastewater Generation. *Operation of the HFRP and Trails Expansion project would increase demand for service associated with collection and disposal of solid waste at permitted disposal facilities and wastewater requiring treatment to avoid health risk. However, solid waste generated by the HFRP and the expansion areas are expected to be taken care of in a manner similar to what occurs at HFRP currently. In addition, the on-site sewage disposal systems would be designed to accommodate the Trails Expansion use.* |
| Significance | *Less than Significant (No new impact relative to prior analysis in the certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

## 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR determined that the HFRP project would increase the generation of solid waste and wastewater. Recology Auburn Placer Disposal Service provides solid waste disposal service for the Didion Ranch portion of the HFRP. The County anticipated expanding this disposal service to include the Spears Ranch portion of the HFRP. Daily use of the project area was not expected to generate a large amount of solid waste and would not exceed the capacity of any landfills. In addition, an on-site sewage disposal system would be provided as part of the HFRP project. The on-site system and/or vault system would be designed with enough capacity to accommodate daily HFRP uses, including occasional overnight camping. Large events would be evaluated through review of the Temporary Event Permit application process to determine if additional disposal services or payment of a fee to cover additional disposal services or portable toilets would be required to accommodate the event. Because the solid waste and wastewater generated by the HFRP project would not exceed the capacity of any landfills or on-site systems and large events would be required to provide additional capacity, if needed, this impact was considered to be **less than significant**.

## 2019 HFRP Trails Expansion Project Impact Analysis

The proposed expansion project would increase demand on existing service providers. The County would contract to expand a solid waste disposal service to include the expansion areas. Solid waste disposal would be provided on a weekly or more frequent basis as needed. Solid waste would be stored on-site in enclosed bear-proof trash receptacles until the waste can be hauled off-site to the nearest waste disposal facility. Daily use of the project area is not expected to generate a large amount of solid waste since public access to the expansion areas will be controlled through expansion of the existing reservation permit system. Large events are, and will be, restricted by the conditions of a Special Event Permit Application issued by the Parks Division to provide for additional trash capacity and pick up. These restrictions allow the County to control the number of guests on HFRP and within the expansion area and limit demands on service providers and disposal facilities.

Wastewater generated by the proposed restrooms is to be treated by on-site sewage disposal systems constructed as part of the project. The on-site septic systems would be designed with enough capacity to accommodate daily expansion area uses. Alternately, vault-type restrooms may be constructed if water supply constraints are encountered. The County may strategically place portable toilets throughout the HFRP and expansion areas as a convenience to the users. Large events would be evaluated through the review of the Temporary Event Permit application process to determine if additional portable toilets would be required to accommodate the event. Because the solid waste and wastewater generated by the project would not exceed the capacity of any landfills or on-site systems and large events would be required to provide additional capacity, if needed, this impact would be **less than significant**.

The proposed trails expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects with regards to solid waste and wastewater generation based on changes in the project, circumstances or new information

## 13.5 MITIGATION MEASURES

Mitigation Measure S13-1 – County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE

In order to navigate further into to the trail system within the expansion areas and to provide a vehicle that can not only aid with emergency medical service requests, but also provide an initial response with potential wildfires, the County shall fund the purchase of one light rescue vehicle (LRV). The LRV shall be purchased at the completion of the first phase of the Twilight Ride access improvements, and prior to opening of the parking area to the general public.

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# 14.0 HAZARDOUS MATERIALS AND HAZARDS

This chapter summarizes the 2010 Hidden Falls Regional Park (HFRP) Certified Environmental Impact Report (EIR) hazardous materials and hazards findings; describes the proposed Trails Expansion project area (project area) environmental setting and pertinent regulations; evaluates the potential for project-related impacts associated with hazardous materials and hazards resulting from implementation of the proposed project; and provides mitigation measures as necessary to reduce those impacts.

## 14.1 SUMMARY OF FINDINGS ON THE 2010 HFRP CERTIFIED EIR

Chapter 14.0, "Hazardous Materials and Hazards," of the 2010 HFRP Certified EIR included a detailed discussion of the park environmental and regulatory setting, potential impacts on hazards resources resulting from implementation of the park project, and any needed mitigation measures to reduce these impacts.

### 14.1.1 FINDINGS OF FACT

The following is a list of the 2010 EIR findings.

- Park project construction and maintenance equipment may use small amounts of hazardous materials and accidental spills or other releases could occur. Compliance with all applicable federal and state regulations and implementing various measures, including preparing and implementing an accidental-spill prevention response plan and employee safety training, reduced the potentially significant impact to **less than significant**.

- Several existing buildings likely contained asbestos containing materials and lead based paint and remnant mining or prospecting resources that could contain hazardous materials are located on the park site, which could pose a health risk to park construction workers. Preparing and implementing a safety hazard plan and conducting soil sampling reduced the potentially significant impact to **less than significant**.

- The potential for fire occurring during or after construction of the park were found to be **less than significant** because the County would implement fire response facilities and management actions and per *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* (Placer County 2007) recommendations that would reduce the risk of wildfire.

- The potential public safety hazards from hunting and increased risk to health hazards from Vector-borne disease were determined to be **less than significant** because hunting would not be allowed when the park is open to the public and hunters would comply with all California Department of Fish and Game (DFG), including shooting setbacks from inhabited structures, and the County closely coordinates with the Vector Control District to monitor and treat potential vector sources in the park area.

- There are no public schools within 0.25-miles of the park and no public airports within two miles; therefore, there were **no impacts** related to schools or airports resulting from implementation of the park project.

## 14.2 2019 HFRP TRAILS EXPANSION PROJECT – ENVIRONMENTAL SETTING

The setting for the Subsequent EIR describes the physical environmental conditions of the proposed HFRP Trails Expansion project. See Chapter 14, "Hazardous Materials and Hazards," of the 2010 HFRP EIR for information about the existing park.

For purposes of this chapter, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "a substance or material that…is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

> … because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness, [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

### 14.2.1 REGIONAL SETTING

The project proposes to add parking and expand the park trail network to the northeast, west and east of the existing park, and south of the Bear River, with interconnections to existing trails within the park. The Trails Expansion project area is surrounded by undeveloped land dominated by natural vegetation. The proposed expansion project area has few roads and includes expansive undeveloped lands within the Raccoon Creek and Bear River watersheds. The area is characterized by blue oak woodland and oak-foothill pine woodland. See Figure 3-4 in Chapter 3, "Project Description," which shows the boundaries of the trail expansion properties and the planned alignment of the proposed new trails.

### 14.2.2 EXISTING SITE CONDITIONS

Land proposed for inclusion in the Trails Expansion boundary includes the Harvego Preserve, Kotomyan Preserve, Taylor Ranch and an easement through the Outman Preserve, which are owned in fee by the PLT. All four preserves possess exceptional natural, scenic, recreational and open space values and contribute to the preservation of native wildlife habitat and oak woodlands (PLT 2007a, 2007b, 2011, 2013). Allowable uses, including agricultural and recreational activities, habitat management, and restoration activities on those properties are regulated through implementation of policies contained in individual management plans.

The Liberty Ranch property is privately owned; however, the PLT holds a conservation easement on the property and the County has a dedicated trail easement within the property that connects to the other PLT-owned parcels. The County's trail easement on the Liberty Ranch property is limited to a previously-surveyed, 15-foot-wide corridor whereas the trail easements on the Harvego Preserve are "blanket" in nature and are not limited to prior established corridors.

Harvego Preserve includes a working cattle ranch, an extensive network of existing ranch roads, and trails developed by the PLT. Outman Preserve, Liberty Ranch, and Taylor Ranch consist of undeveloped land used for cattle grazing. Both the Kotomyan Preserve and Taylor Ranch have existing multi-use trails which are used by the PLT during docent-led site visits.

The Twilight Ride parcel is located adjacent to Taylor Ranch and is accessed directly off Bell Road. The County has entered a Purchase and Sale Agreement for this land for the potential to provide parking accessible directly from Bell Road.

The adopted Conditional Use Permit (CUP) for HFRP, CUP No. 20090391 approved on January 28, 2010, allows for an additional parking area at the western end of the park, with access via Garden Bar Road. Pursuant to this CUP, and as described in the 2010 HFRP Certified EIR, the County is allowed to provide limited, reservation-based access off Garden Bar Road that would require only minimal off-site road improvements, including the establishment of a parking lot on park land. Although approved in 2010, the parking lot on the Garden Bar side of the park has not yet been constructed. In 2016, the County purchased a 40-acre parcel with direct access off Garden Bar Road. An existing easement connects this 40-acre parcel to the west end of the park. This Draft SEIR discusses the parking area that is proposed to be constructed on the 40-acre parcel. A Phase I Environmental Site Assessment (ESA) was prepared for the Harvego Preserve property by Wallace Kuhl and Associates (2006). Review of historical U.S. Geological Survey topographic maps and historic aerial photos and field reconnaissance of the property showed no evidence to suggest that the property was disturbed by intensive human activities such as quarrying, subsurface or surface mining, or dredging. No aboveground storage tanks, odors, soil staining, or stressed vegetation were observed. Debris, soil piles, concrete rubble, and other abandoned items were located on the property and there was no evidence that these items contained hazardous materials. No recognized environment conditions[1] were observed on the property.

A Phase I ESA was prepared for the Taylor Ranch property by Youngdahl Associates (2007). Field reconnaissance of the property identified a lode mine with vertical shaft covered at the surface with vegetation and other inert debris (wood, concrete, vegetation, and miscellaneous trash), a waste rock pile, and associated structures located at the eastern boundary of parcel 026-120-028-000, north of Raccoon Creek. A Limited Phase 2 Soil Investigation was conducted to evaluate the waste rock pile for elevated concentrations of arsenic. The investigation determined that arsenic concentrations were below reporting limits. No recognized environment conditions were observed on the property.

The State Water Resources Control Board (SWRCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) EnviroStor database were searched to identify toxic releases, hazardous waste, or

[1] The American Society of Testing and Materials Standard Practice E 1527-05 define "Recognized Environmental Conditions" as the "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a part release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property."

other violations that could affect the proposed project site. As of March 2019, none of the properties within the expansion area are listed as a hazardous waste sites in either of these database (SWRCB 2019; DTSC 2019).

In addition, the U.S. Environmental Protection Agency (USEPA) Envirofacts database was searched. The Envirofacts database is an assemblage of USEPA databases, including the Comprehensive Environmental Response, Compensation, and Liability Act (commonly known as Superfund) Information System database, which includes National Priorities List sites being assessed under the Superfund program, hazardous waste sites, and potential hazardous waste sites. None of the properties within the Trails Expansion area are listed in the Envirofacts database (USEPA 2019).

Several stock ponds and reservoirs exist within the Harvego Preserve portion of the expansion area that could provide potential habitat for mosquitoes (Wallace Kuhl Associates 2006). The project area is served by the Placer Mosquito and Vector Control District (Vector Control District), which serves all of Placer County. The Vector Control District routinely inspects and treats agricultural, industrial, and residential vector sources such as creeks, wetlands, and human-made water features, as needed (Placer Mosquito and Vector Control District 2009).

The closest airport is the Auburn Municipal Airport, which is located approximately 7 miles southeast of the proposed expansion project area.

The nearest school is Auburn Elementary School, located approximately 7 miles south of the proposed expansion project area.

#### FIRE HAZARD

The 2010 HFRP Certified EIR considered the potential for construction and operation of the park to expose people and structures to wildfires. However, the State CEQA Guidelines were amended in 2019 to include new thresholds related to wildfire. Because the 2010 HFRP Certified EIR was prepared prior to adoption of the 2019 amendments and because the County is conducting a Subsequent EIR Analysis, evaluation of the potential for park operations to create wildfire related impacts is evaluated for both the existing HFRP and the proposed trails expansion areas. See Section 16.0 “Wildfire” of this SEIR for the discussion of wildfire hazards.

## 14.3 REGULATORY SETTING

### 14.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

#### HAZARDOUS MATERIALS MANAGEMENT

The USEPA has primary responsibility for enforcing and implementing federal laws and regulations pertaining to hazardous materials. Applicable regulations are contained mainly in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the Code of Federal Regulations (CFR), are listed in 49 CFR 172.101. Management of hazardous materials is governed by the laws summarized below.

- **Resource Conservation and Recovery Act of 1976 (RCRA):** The RCRA (42 U.S. Code [USC] 6901 et seq.) established a federal regulatory program for the generation, transport, and disposal of hazardous substances. Under the RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. The RCRA was amended by the Hazardous and Solid Waste Amendments of 1984, which banned the disposal of hazardous waste on land and strengthened EPA’s reporting requirements. EPA

has delegated authority for many RCRA requirements to the California Department of Toxic Substances Control (DTSC).

- **Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA):** CERCLA, also called the Superfund Act (42 USC 9601 et seq.), provided broad federal authority and created a trust fund for addressing releases and threatened releases of hazardous substances that could endanger public health or the environment.

- **Superfund Amendments and Reauthorization Act of 1986 (SARA):** The Superfund Hazardous Substance Cleanup Program (Public Law 96-510) was established on December 11, 1980. The program was expanded and reauthorized by the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499), also known as SARA Title III. SARA created the Emergency Planning and Community Right-to-Know Act of 1986, also known as SARA Title III, a statute designed to improve community access to information about chemical hazards and to facilitate the development of chemical emergency response plans by state, tribal, and local governments.

- **Toxic Substances Control Act:** The Toxic Substances Control Act (TSCA) (15 USC 2601 et seq.) provides EPA with authority to require reporting, recordkeeping and testing, and restrictions related to chemical substances and/or mixtures. The TSCA addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

- **Clean Air Act:** Regulations under the Clean Air Act (42 USC 7401 et seq., as amended) are designed to prevent accidental releases of hazardous materials. The regulations require facilities that store a threshold quantity or greater of listed regulated substances to develop a risk management plan that includes hazard assessments and response programs to prevent accidental releases of listed chemicals.

These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. EPA is responsible for compiling the National Priorities List (NPL) for known or threatened release sites of hazardous substances, pollutants, or contaminants (commonly referred to as “Superfund sites”). EPA provides oversight of and supervision for Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

### Hazardous Materials Transportation

The U.S. Department of Transportation (DOT), in conjunction with EPA, is responsible for enforcing and implementing federal laws and regulations that govern transportation of hazardous materials. The Hazardous Materials Transportation Act of 1974 (49 USC 5101) directed DOT to establish regulations for the safe storage and transportation of hazardous materials (CFR Title 49, Parts 171–180), which define the types of hazardous materials, their transport, packaging, and methods of marking vehicles (i.e., via placards). EPA, the California Highway Patrol (CHP), the California Department of Transportation (Caltrans), and DTSC also enforce state and federal laws regarding hazardous materials transport. EPA regulations for transporting hazardous wastes require tracking shipments with manifests. EPA standards for transporters of hazardous materials are found at 40 CFR 263 and include labeling, placarding, proper containers, and reporting discharges. DOT regulations are documented in 49 CFR 171–180.

### OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

The Occupational Safety and Health Administration (OSHA) is responsible for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for handling hazardous substances and addressing other potential industrial hazards. OSHA also establishes criteria by which each state can implement its own health and safety program. The Hazard Communication Standard (CFR Title 29, Part 1910) requires that workers be informed of the hazards associated with the materials they handle. Workers must be trained in safe handling of hazardous materials, use of emergency response equipment, and building emergency response plans and procedures. Containers must be labeled appropriately, and material safety data sheets must be available in the workplace.

## 14.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

### HAZARDOUS MATERIALS HANDLING

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety. The California Environmental Protection Agency (Cal/EPA) and the Governor's Office of Emergency Services establish rules governing the use of hazardous substances in California. Within Cal/EPA, DTSC is primarily responsible for regulating the generation, transport, and disposal of hazardous substances under the authority of the Hazardous Waste Control Law; enforcement is delegated to local jurisdictions. Regulations implementing the Hazardous Waste Control Law list hazardous chemicals and common substances that may be hazardous; establish criteria for identifying, packaging, and labeling hazardous substances; prescribe hazardous-substances management; establish permit requirements for treatment, storage, disposal, and transportation of hazardous substances; and identify hazardous substances prohibited from landfills. These regulations apply to the protection of human health and the environment during construction.

State regulations applicable to hazardous materials are contained primarily in Title 22 of the CCR. CCR Title 26 is a compilation of those CCR chapters or titles that are applicable to hazardous materials management. California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) standards are presented in CCR Title 8; these standards are more stringent than federal OSHA regulations and address workplace regulations involving the use, storage, and disposal of hazardous materials.

State and federal laws require detailed planning to ensure that hazardous materials are handled, used, stored, and disposed of properly, and, in case such materials are accidentally released, to prevent or to mitigate injury to health or the environment. California's Hazardous Materials Release Response Plans and Inventory Law—also called the Business Plan Act—is intended to minimize the potential for accidents involving hazardous materials and facilitate an appropriate response to possible hazardous-materials emergencies. The law (California Health and Safety Code, Division 20, Chapter 6.95, Article 1) requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies; to illustrate on a diagram where the materials are stored on-site; to prepare an emergency response plan; and to train employees to use the materials safely and for emergency response.

### CALIFORNIA HAZARDOUS MATERIALS RELEASE RESPONSE PLANS AND INVENTORY LAW OF 1985

This law requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories. Such plans must include an inventory of hazardous materials handled, as well as facility floor plans

showing where hazardous materials are stored, an emergency response plan, and emergency response procedures that provide for employee training (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). The business plan program is administered by the California Emergency Management Agency.

DTSC has primary regulatory responsibility for management of hazardous materials, and delegates authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations. Several state agencies, including Cal/EPA and the California Emergency Management Agency, regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety. The CHP and Caltrans enforce regulations related to the transport of hazardous materials. Together, these agencies determine container types used and license haulers to transport hazardous waste on public roadways.

A business plan is required if a hazardous substance would be stored for more than 30 days in any of the following quantities:

- 500 gallons or more of any solid;
- 55 gallons or more of any liquid;
- 200 cubic feet or more of any compressed gas; or
- any acutely hazardous substance or radiological material that meets the federal threshold planning quantities listed in 40 CFR Part 355, Subpart A.

### CAL/OSHA WORKER SAFETY REQUIREMENTS

The California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations for the use of hazardous materials in the workplace (CCR Title 8) require safety training, available safety equipment, accident and illness prevention programs, hazardous-substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal/OSHA enforces regulations on hazard communication programs and mandates specific training and information requirements. These requirements include procedures for identifying and labeling hazardous substances, providing hazard information about hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous-waste sites. Employers must make material safety data sheets available to employees and document employee information and training programs.

### TRANSPORTATION OF HAZARDOUS MATERIALS

State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. The transport of hazardous materials is regulated under the California Vehicle Code (CCR Title 13) and can only be conducted under a registration issued by DTSC. ID numbers are issued by DTSC or EPA for tracking hazardous waste transporters and treatment, storage, and disposal facilities for hazardous materials. The ID number is used to identify the hazardous waste handler and to track waste from point of origin to final disposal, and all material transport takes place under manifest.

### CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM

The goal of the California Accidental Release Prevention Program (CCR Title 19, Division 2, Chapter 4.5) is to reduce the likelihood and severity of consequences of any releases of extremely hazardous materials. Any business that handles regulated substances (chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable, or explosive, including ammonia, chlorine gas, hydrogen, nitric acid, and propane) must prepare a risk management plan. The risk management plan is a detailed engineering analysis of the potential accident factors present at a business and the measures that can be implemented to reduce this accident potential. The plan must provide safety information, hazard data, operating procedures, and training and maintenance requirements. The list of regulated substances is found in Article 8, Section 2770.5 of the program regulations.

### UNIFIED PROGRAM

Cal/EPA has adopted regulations implementing the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous-waste generation and on-site treatment, underground storage tanks, aboveground storage tanks, hazardous-material release response plans and inventories, risk management and prevention programs, and Uniform Fire Code hazardous-materials management plans and inventories. The program is implemented at the local level by a local agency, referred to as the Certified Unified Program Agency (CUPA), which is responsible for consolidating the administration of the six program elements within its jurisdiction. The Sacramento County Environmental Management Department (EMD) is the CUPA for Sacramento County.

### PUBLIC RESOURCES CODE SECTION 65962.5 (CORTESE LIST)

The provisions of California Government Code Section 65962.5 are commonly referred to as the “Cortese List” (after the legislator who authored the legislation that enacted it). The Cortese List is a planning document used by the State and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires Cal-EPA to develop an updated Cortese List annually, at minimum. DTSC and SWRCB are responsible for a portion of the information contained in the Cortese List. Other California State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

### STATE WATER RESOURCES CONTROL BOARD

The SWRCB, through its nine regional water quality control boards (RWQCBs), has primary responsibility for protecting water quality and supply. The project area is located within the jurisdiction of the Central Valley RWQCB. See Chapter 11.0, “Hydrology and Water Quality,” for further discussion of the Central Valley RWQCB.

## 14.3.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 2013) for hazardous materials and hazards.

**GOAL 8.E:** To ensure the maintenance of an Emergency Management Program to effectively prepare for, respond to, recover from, and mitigate the effects of natural or technological disasters.

- **Policy 8.E.4.** The County shall, through its Office of Emergency Services, maintain the capability to effectively respond to emergency incidents.
- **Policy 8.E.5.** The County shall maintain an emergency operations center to coordinate emergency response, management, and recovery activities.

**GOAL 8.G:** To minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous materials wastes.

- **Policy 8.G.1.** The County shall ensure that the use and disposal of hazardous materials in the County complies with local, state, and federal safety standards.
- **Policy 8.G.5.** The County shall strictly regulate the storage of hazardous materials and wastes.
- **Policy 8.G.6.** The County shall require secondary containment and periodic examination for all storage of toxic materials.
- **Policy 8.G.13.** The County shall work with local fire protection and other agencies to ensure an adequate Countywide response capability to hazardous materials emergencies.

## 14.4 IMPACTS

### 14.4.1 ANALYSIS METHODOLOGY

The focus of this analysis is on the potential for project-related impacts associated with hazardous materials and hazards resulting from implementation of the proposed project. A review of environmental risk databases was conducted, including the EPA's Envirofacts web site the SWRCB's GeoTracker web site, and DTSC's EnviroStor web site (SWRCB 2019; DTSC 2019; USEPA 2019; CAL FIRE 2007). In addition, the Phase I Environmental Site Assessments (ESAs) for the Harvego Preserve and Taylor Ranch were reviewed (Wallace Kuhl Associates 2006; Youngdahl Consulting Group 2007). See appendix K for copies of these reports. The information obtained from these sources was reviewed and summarized to establish existing conditions and to evaluate the significance of potential environmental effects, based on the thresholds of significance presented below. In determining the level of significance, this analysis assumes that development in the proposed expansion area would comply with relevant federal, State, regional, and local ordinances and regulations. This analysis also considered how the HFRP Trails Expansion Project would or would not change the conclusions of the prior environmental review.

### 14.4.2 THRESHOLDS OF SIGNIFICANCE

#### CEQA THRESHOLDS

Based on the Placer County CEQA checklist and the State CEQA Guidelines, the proposed project would result in a potentially significant impact on hazardous materials or hazards if it would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous materials within one-quarter mile of an existing or proposed school;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard or excessive noise for people residing or working in the project area.
- be located on a site that is included on a list of hazardous materials sites, and as a result, would create a significant hazard to the public or the environment;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

### ISSUES NOT ANALYZED FURTHER

The proposed project would have no impact associated with the following issues, and these issues will not be analyzed further in this chapter:

- **Emergency Response/Emergency Evacuation Plans:** Project-related construction activities and expansion of the HFRP trail network would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, because emergency ingress and egress routes would remain open during both construction and operation. Emergency access to the existing HFRP is in place and includes three helicopter landing zones, three bridge crossings, and public roads. As discussed further in Chapter 3, “Project Description,” and Impact 8-6 in Chapter 8.0, “Transportation and Circulation,” proposed roads would provide enhanced emergency access to all portions of the project area over what is currently available, including those across Raccoon Creek.
- **Emissions or Hazardous Materials within One-Quarter Mile of a School:** The proposed project site is not within 0.25 mile of an existing or proposed school. The nearest school is the Auburn Elementary School, located approximately 7 miles south of the proposed expansion project area. No potential exists for hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- **Located in an Airport Land Use Plan or within 2 Miles of a Public Airport:** The proposed project site is not in a designated airport land use plan area, nor is it located within 2 miles of a public airport. The closest airport is the Auburn Municipal Airport, which is located approximately 7 miles southeast of the proposed expansion project area.

- **Hazardous Materials Sites:** The proposed project site is not on the USEPA list of Superfund hazardous waste sites, nor is it on the DTSC Hazardous Waste and Substance Site list (the Cortese list) (DTSC 2019).

- **Runoff, Post-Fire Slope Instability, or Drainage Changes:** Operation of the park and construction and operation of new trails, amenities, roads, and parking lots within the proposed expansion area would not result in runoff, slope instability, or drainage changes that would expose people of structures to significant risks. The County would implement construction-related and post-development best management practices and comply with regulatory requirements that manage stormwater runoff and erosion (see Mitigation Measure S5-1 in Section 5.0, "Soils, Geology, and Seismicity," and Mitigation Measure 11-1 in Section 11.0, "Hydrology and Water Quality"). Standard trail design would use the natural drainage patterns as well as follow contours to minimize grades to discourage erosion from water velocity on steep profiles. There are no areas of shallow slope instability within the park or proposed expansion area. Section 5.0, "Soils, Geology, and Seismicity," and Section 11.0, "Hydrology and Water Quality," provide a detailed discussion of stormwater runoff, slope stability, and drainage changes.

## 14.4.3 IMPACT ANALYSIS[2]

| | |
|---|---|
| IMPACT 14-2 | Hazardous Materials and Hazards—Potential for Release of Hazardous Materials during Construction or Operation. *Project construction activity and ongoing maintenance may use equipment that requires small amounts of hazardous materials. The County would comply with all applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety; however, accidental spills or other releases of small amounts of hazardous materials could occur during construction or operation of the project area.* |
| Significance | *Potentially Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 14-1: Implement Measures to Reduce Hazards Associated with Potential Releases of Hazardous Materials; and*<br>*Mitigation Measure S5-1 in Chapter 5.0, "Soils, Geology, and Seismicity": Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

Construction of the existing HFRP involved machinery (e.g., mini excavator) and larger mechanized equipment (e.g., tractors, graders). For long-term maintenance, equipment and localized hand spraying of herbicide by County staff members certified in herbicide/pesticide application would be required to prevent vegetation from overgrowing the trails. Machinery and equipment used during construction and maintenance may use small amounts of hazardous materials, including gasoline, diesel fuel, engine oil, and hydraulic fluid. These activities would comply with

[2] Impact 14.1 pertaining to wildfire is now addressed in Section 16.0 "Wildfire" of this SEIR.

applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety and hazardous materials used for ongoing maintenance within HFRP would also be stored in accordance with applicable federal and state regulations pertaining to storage of hazardous materials. However, accidental spills or other releases could occur. Implementing Mitigation Measure 14-1 to prepare and implement an accidental-spill prevention response plan, conduct employee safety training, and properly store hazardous materials, as well as Mitigation 5-1 to obtain authorization for construction and operation activities from the Central Valley Regional Water Quality Board and implement erosion and sediment control measures as required, including stormwater, construction, and post-development best management practices (BMPs), reduced the potentially significant impact to **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

Construction of the proposed Trails Expansion project would involve the use of a Sweco trail dozer, a mini excavator, and/or other machinery capable of conforming to the dimensional requirements of the trail system. In addition, other larger mechanized equipment (e.g., tractors, graders, cranes) would be used for construction of parking areas, bridges, overlooks, road improvements along Curtola Ranch Road, Bell Road and Garden Bar Road. For long-term maintenance of the project area, construction equipment and localized hand spraying of herbicide along the trail would be required to prevent vegetation from overgrowing the trails. Herbicides would be applied by County staff members certified in herbicide/pesticide application. Construction and maintenance equipment may use small amounts of hazardous materials, including gasoline, diesel fuel, engine oil, and hydraulic fluids. Accidental spills of construction-related contaminants could occur during construction, resulting in contamination of surface soils. As described in Impact 11-1, “Potential for Short-Term, Construction-Related Soil Erosion and Impairment of Water Quality,” in Chapter 11.0, “Hydrology and Water Quality,” discharges of these contaminants to receiving waters during storm events could degrade water quality.

Operation of mechanized equipment during trail construction and maintenance, including spraying of herbicides, would proceed in compliance with applicable federal and state regulations pertaining to handling of hazardous materials and worker health and safety. Compliance with these regulations would protect workers from health hazards associated with routine exposure to hazardous materials and would minimize the potential for accidental spills and resultant hazards to people, animals, or plants in the area. Hazardous materials used for ongoing maintenance within the project area would also be stored in accordance with applicable federal and state regulations pertaining to storage of hazardous materials.

The existing park and proposed Trails Expansion project area are located in an undeveloped area, and the purpose of the proposed project is to provide natural surface, multi-use trails for recreation in an unspoiled environment. An accidental spill or other release of even a small amount of a hazardous material in this area during project construction or maintenance could have a substantial effect on the quality of the natural environment. Therefore, this impact would be potentially significant. However, implementation of Mitigation Measures 14-1 and S5-1 would reduce this impact to a **less-than-significant** level.

The proposed HFRP Trails Expansion Project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 14-3 | Hazardous Materials and Hazards—Potential for a Public Safety Hazard from Hunting Activities. *Activities allowed in the existing park include depredation hunting to control damage to the park, especially from wild pigs. Hunting activities could conflict with other recreational activities occurring in the Trails Expansion area. However, measures would be implemented to protect the visiting public and surrounding residents from hunting activities.* |
| Significance | *Less than Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR discussed the allowance for up to four days of hunting of legal game in the park during two, 2-day seasons per year with up to 10 hunting permits being issued per season. Each season would be a maximum of 2 days, for a total of 4 open hunting days per year. The potential public safety hazards from hunting were found to be **less than significant** because hunting would not be allowed when the park was open to the public and hunters would comply with all California Department of Fish and Game (DFG) regulations, including shooting setbacks from inhabited structures. During the public hearing in January of 2010, the Planning Commission decided to not allow hunting within the park, with the exception of depredation hunting for animals which are causing damage to the park. Condition of approval 1(u) for the Conditional Use Permit (which governs the activities at the park) therefore prohibits hunting on the park property other than as allowed by a valid depredation permit. In practice, the County Wildlife Specialist is contacted when an animal (or group of animals) is are causing damage to the park and the County must obtain a depredation permit from the California Department of Fish and Wildlife (CDFW, formerly known as the DFG) prior to dispatching the animal(s).

### 2019 HFRP Trails Expansion Project Impact Analysis

Permitted uses in the expansion areas owned by the Placer Land Trust are regulated by individual management plans and are limited to recreational activities and actions to preserve and restore natural habitat. Recreational hunting is not a permitted activity under any of the management plans covering the expansion area. However, the management plans do provide for removal of exotic pests consistent with the goal to conserve native habitat. Management of exotic species could involve land managers obtaining a depredation permit to control nuisance species (e.g., feral pigs) that cause damage to vegetation within the park or Trails Expansion areas. The permits would be obtained under CDFW regulations. Because other recreation activities (e.g., hiking, biking, picnicking) are allowed in the park and the proposed Trails Expansion project area, the potential for conflict with hunting activities exists if they were to take place during periods when the park or Trails Expansion areas are open to the public. Therefore, depredation hunting would take place only during times of park closure in order to eliminate conflicts with other recreation activities. In addition, land managers would be required to comply with all CDFW hunting regulations, including shooting setbacks from inhabited structures, education, and licensing requirements.

Because hunting is not a permitted use except in specific circumstances, it would not be allowed when the park is open to the public and requires land managers to comply with all CDFW regulations, including setbacks from inhabited structures, which would protect the public from hazards associated with hunting activities, this **impact would be less than significant**. The proposed expansion of the HFRP trails system would not result in new significant environmental effects from depredation hunting or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 14-4 | Hazardous Materials and Hazards—Potential Exposure of People to Hazardous Materials. *There have been no recorded releases of toxic materials in the park or the proposed Trails Expansion project area. Several remnant mining or prospecting resources are located in the existing park and one load gold mine is located in the Taylor Ranch property within the expansion area that could contain hazardous materials.* |
| Significance | *Potentially Significant (Consistent with prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure 14-2: Prepare and Implement a Safety Hazard Plan and Conduct Soil Sampling* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR noted no recorded releases of toxic materials within HFRP. However, several existing buildings likely contain asbestos containing materials and lead based paint, so renovation or demolition of on-site buildings could expose workers to asbestos-containing materials (ACMs) and lead-based paint (LBP). In addition, several mining and/or prospecting-related resources were identified within the Spears Ranch portion of the park during the cultural resources inventory (see Chapter 6.0, “Cultural Resources”) and mining-related resources could, although unlikely, contain hazardous materials (i.e., heavy metals) that were commonly used in mining operations, which could pose a health risk to park construction workers. Because it is unknown if these resources are mining-related or prospecting-related, there is the potential that they could contain hazardous materials. Mitigation Measure 14-2 to prepare and implement a safety hazard plan and conduct soil sampling reduced the potentially significant impact to **less than significant**.

### 2019 HFRP Trails Expansion Project Impact Analysis

AECOM searched the EPA’s Envirofacts, the SWRCB’s GeoTracker, and DTSC’s Envirostor web sites to identify toxic releases, hazardous waste, or other violations that could affect the Trails Expansion area. The expansion area is not listed in these databases as a hazardous waste site (USEPA 2019; SWRCB 2019; DTSC 2019). The Phase I ESAs prepared for the Harvego Preserve property and Taylor Ranch property did not identify any recognized environmental conditions or other indications of potential hazardous materials contamination (Wallace Kuhl and Associates 2006; Youngdahl Associates 2007).

A load gold mine with a vertical shaft covered at the surface with vegetation and other inert debris (wood, concrete, vegetation, and miscellaneous trash) and a waste rock pile was identified within parcel 026-120-028-000 of the Taylor Ranch property. As discussed above, a Limited Phase 2 Soil Investigation determined that arsenic

concentrations in the waste rock pile were below reporting limits (Youngdahl Associates 2007). If the load gold mine, inert debris, and waste rock would be in close proximity to a project facility, it would be removed during construction and would therefore not pose a hazard to the public.

During ground preparation and construction activities, construction workers could come in contact with and be exposed to currently unknown hazardous materials. Therefore, this impact would be potentially significant.

Mitigation Measure 14-2 requires the County to prepare and implement a safety hazard plan and conduct soil sampling that would reduce the potentially significant impact to **less than significant**. The proposed Trails Expansion project would not result in new significant environmental effects or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

| | |
|---|---|
| IMPACT 14-5 | Hazardous Materials and Hazards—Increased Risk of Health Hazard from Vector-borne Diseases. *A large stock pond currently exists within the HFRP, and the Trail Expansion areas could include development of new stock ponds for cattle grazing or fuels management purposes. These ponds could serve as potential habitat for mosquitoes. The project would also increase the number of people in an area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. However, the County would coordinate with the Vector Control District to ensure these sites are not a hazard to the public.* |
| Significance | *Less than Significant (Consistent with prior analysis in 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2010 HFRP Certified EIR Impact Summary

The 2010 Certified EIR discussed that several stock ponds exist within the park site and the park project could include construction of new fishing ponds developed in conjunction with the fuel load reduction and/or grazing plans. These ponds could provide habitat for mosquitoes. The project would increase the number of people in the area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. This potentially significant impact would be reduced to **less than significant** because the County would work closely with the Vector Control District to ensure routine monitoring, treatments, and implement various measures, as necessary, to reduce mosquitoes.

### 2019 HFRP Trails Expansion Project Impact Analysis

The proposed new trails system would be outfitted with amenities similar to those in the current park and could include new stock ponds developed for grazing or fuels management purposes. These ponds could provide potential habitat for mosquitoes that can pose a health hazard to the public. The proposed project would also increase the number of people in an area that could contain several mosquito-breeding sites and therefore would increase the number of people potentially exposed to vector-borne diseases carried by mosquitoes. However, as

with the existing HFRP this condition would be alleviated by close coordination with the Vector Control District to ensure routine monitoring and treatment of potential vector sources in the project area. If favorable conditions for vectors are found in the project area measures would be taken to reduce the potential sources for vectors. Measures would include actions such as, use of larvacides, stocking ponds with mosquito fish, and managing water levels and aquatic vegetation to discourage mosquito breeding. Larvacides used by the Vector Control District are the safest and least toxic materials available for public health and would not affect aquatic invertebrates or non-target insects.

Close coordination with the Vector Control District to monitor the project area and implementation of measures as necessary to reduce vector sources would reduce this impact to a **less-than-significant** level.

The proposed Trails Expansion project would not result in new significant environmental effects with regards to vector-borne diseases or substantially increase the severity of previously identified significant effects based on changes in the project, circumstances or new information.

## 14.5 MITIGATION MEASURES

Mitigation Measure S5-1: Obtain Authorization for Construction and Operation Activities with the Central Valley Regional Water Quality Control Board and Implement Erosion and Sediment Control Measures as Required (see in Chapter 5.0, "Soils, Geology, and Seismicity")

Mitigation Measure 14-1: Implement Measures to Reduce Hazards Associated with Potential Releases of Hazardous Materials

The County shall ensure that the following measures are implemented before project construction begins:

- The County or the County's contractor shall prepare and implement an accidental-spill prevention and response plan for storage and use of hazardous materials during trail construction and maintenance. This plan shall identify measures to prevent accidental spills from leaving the area and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.
- The County shall ensure that any employee handling hazardous materials is trained in the safe handling and storage of hazardous materials and is trained to follow all applicable regulations with regard to such hazardous materials.
- The primary construction contractor shall identify a staging area where hazardous materials will be stored during construction, in accordance with applicable state and federal regulations.

Mitigation Measure 14-2: Prepare and Implement a Safety Hazard Plan and Conduct Soil Sampling

To avoid health risks to construction workers, Placer County shall require the contractor to prepare and implement a site health and safety plan if areas containing hazardous materials are to be disturbed. This plan will outline measures that will be employed to protect construction workers and the public from exposure to hazardous materials during remediation, demolition, and construction activities. The County shall consult with the contractor to determine the measures to be employed at the site, which could include posting notices, limiting access to the site, monitoring the air quality, watering, and installation of

wind fences. Contractors shall be required to comply with state health and safety standards for all demolition work, including compliance with OSHA and Cal/OSHA requirements regarding exposure to ACMs and LBP.

For any prospecting or mining resources (Abandoned Mine Lands) that are in close proximity to a project facility, a Phase 2 Limited Soil Sampling (soil sampling) shall be conducted to determine if there are any hazardous materials present on-site. The soil sampling of the tailings shall be conducted during the entitlement process (i.e., conditional use permit). Soil sampling will determine the California Human Health Screening Levels (CHHSL) of the testing protocol (CAM 17 metals, a list of 17 metals found typically in hazardous materials and mining sites). The CHHSLs are a list of 54 hazardous chemicals in soil or soil gas that the California Environmental Protection Agency (Cal/EPA) considers to be below thresholds for risks to human health.

The soil sampling results shall be reviewed by Placer County Division of Environmental Health. If the soil sampling results are above the CHHSLs, then Placer County Division of Environmental Health would refer the project to the DTSC. DTSC requires the project proponent to enter their Voluntary Cleanup Agreement (VCA) program. The VCA typically requires more soil testing to determine the scope of the contamination area. Furthermore, DTSC may require a Preliminary Endangerment Assessment (PEA) and/or a removal action workplan (RAW). The PEA is used to discuss the health risks associated with hazardous materials site releases and the RAW is used to specifically detail the areas of the project area to have soil removed and the contaminated soils disposal at an appropriate solid waste facility. Following soils removal, DTSC issues a “No Further Action” letter indicating that the project site is safe.

In addition, the contractor shall prepare and implement a site plan that identifies necessary remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and redistribution of clean fill material within the project area. The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the project area. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The contractor shall be required to comply with the plan and with applicable local, state, and federal laws.

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# 15.0 GREENHOUSE GAS EMISSIONS AND ENERGY

This chapter presents a summary of the existing science related to greenhouse gases (GHGs); overviews of state and local GHG emissions inventories, and of the existing regulatory context for GHGs; a summary of the methods used to estimate GHG emissions attributable to the proposed project; and an analysis of potential impacts of the proposed project related to GHG emissions.

The proposed trails expansion project would not contribute significantly to climate change by itself. However, cumulative emissions from many projects and plans would all contribute to global GHG concentrations and the climate system. This section considers the proposed project's cumulative contribution to the significant cumulative impact of climate change.

Energy use (and efficiency) is an important indicator of GHG emissions and is therefore analyzed in this section in conjunction with the GHG analysis. This section considers the primary energy requirements for the proposed project; the benefit of existing regulations that require energy-efficient construction and operation; the potential for the proposed project to result in the wasteful, inefficient, and unnecessary consumption of energy; and the energy conservation measures proposed as part of the project design to reduce energy use.

## 15.1 SUMMARY OF COUNTY FINDINGS ON THE 2010 HFRP EIR

### 15.1.1 FINDINGS OF FACT

Greenhouse gas was not considered as an environmental issue on the Initial Study Checklist at the time the 2010 HFRP was certified. However, the County Board of Supervisors made a number findings including affirmation that the document represented the independent judgement of the lead agency and was prepared consistent with appropriate CEQA requirements, including a statement that it was prepared in accordance with state statutes and guidelines.

### 15.1.2 OVERVIEW OF GREENHOUSE GASES

Certain gases in the earth's atmosphere, classified as Greenhouse Gasses (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on Earth. Anthropogenic (human-caused) emissions of these GHGs lead to atmospheric levels that exceed natural ambient concentrations and have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

The Intergovernmental Panel on Climate Change concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the earth's warming from pre-industrial times to 1950. Some variations in natural phenomena also had a small cooling effect. Since 1950, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been responsible for most of the observed temperature increase (IPCC 2019).

Global surface temperature has increased by approximately 1.53 degrees Fahrenheit over the last 140 years (IPCC 2019); however, the rate of increase in global average surface temperature has not been consistent. During the last three decades, temperatures have warmed at a much faster rate per decade (IPCC 2019).

During the same period when increased global warming has occurred, many other changes have occurred in other natural systems. Sea levels have risen; precipitation patterns throughout the world have shifted, with some areas becoming wetter and others drier; snowlines have increased in elevation, resulting in changes to the snowpack, runoff, and water storage; and numerous other conditions have been observed. Although it is difficult to prove a definitive cause-and-effect relationship between global warming and other observed changes to natural systems, there is a high level of confidence in the scientific community that these changes are a direct result of increased global temperatures caused by the increased presence of GHGs in the atmosphere (IPCC 2019).

## Principal Greenhouse Gases and Sources

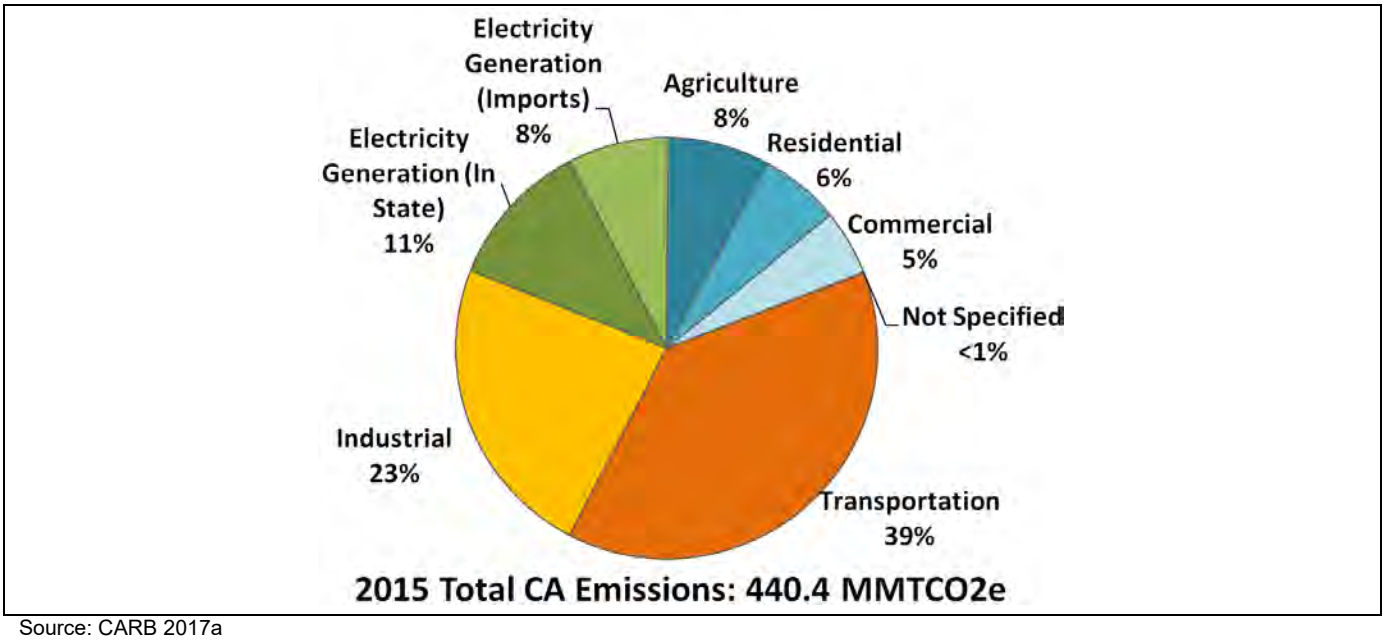
GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; volcanic activity; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels by stationary and mobile sources, waste treatment, and agricultural processes. The following are the principal GHG pollutants that contribute to climate change and their primary emission sources:

- **Carbon Dioxide:** Natural sources of carbon dioxide ($CO_2$) include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; and evaporation from oceans. Anthropogenic sources include burning of coal, oil, natural gas, and wood.
- **Methane:** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide:** Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of nitrous oxide are agricultural soil management, sewage treatment, mobile and stationary combustion of fossil fuel, and production of adipic and nitric acid. Nitrous oxide is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests.
- **Fluorinated Gases:** These gases, listed below, are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as having high global warming potential (GWP).
    - *Chlorofluorocarbons* are used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants.
    - *Perfluorinated chemicals* are emitted as byproducts of industrial processes and are used in manufacturing.
    - *Sulfur hexafluoride* is a strong GHG used primarily as an insulator in electrical transmission and distribution systems.

- *Hydrochlorofluorocarbons* have been introduced as temporary replacements for chlorofluorocarbons and are also GHGs.
- *Hydrofluorocarbons* were introduced as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. Hydrofluorocarbons are emitted as byproducts of industrial processes and are used in manufacturing.

GHGs are not monitored at local air pollution monitoring stations and do not result in direct impacts on human health. Rather, GHGs generated locally contribute to global concentrations of GHGs, which result in changes to the climate and environment.

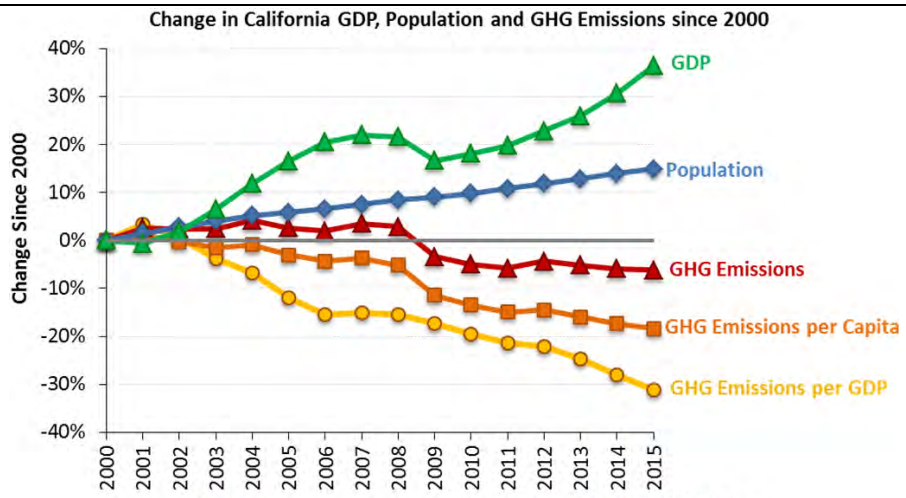
The California Air Resources Board (CARB) prepares an annual, statewide GHG emissions inventory. GHGs are typically analyzed by sector or type of activity. As shown in Exhibit 15-1, California produced 440.4 million metric tons (MT) $CO_2$ equivalent ($CO_2e$) in 2015. Combustion of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2015, accounting for 39 percent of total GHG emissions. Transportation was followed by industry, which accounted for 23 percent, and then by the electric power category (both in-state and out-of-state sources), which accounted for 11 percent of total GHG emissions (CARB 2017a).




Source: CARB 2017a

**Exhibit 15-1. 2015 California Greenhouse Gas Emissions Inventory by Sector**

As described below, California has implemented several programs and regulatory measures to reduce GHG emissions. Exhibit 15-2 demonstrates California's progress in achieving statewide GHG emissions reduction targets. Since 2007, California's GHG emissions have been declining; GHG emissions have continued to decline even as population and gross domestic product have increased. Per-capita GHG emissions in 2015 were 19 percent lower than the peak per-capita GHG emissions recorded in 2001. Similarly, GHG emissions per million dollars of gross domestic product have decreased by 33 percent since the peak in 2001 (CARB 2017b).




| Metric | Associated 2015 Value |
|---|---|
| GDP | 2.2 trillion (2009 $) |
| Population | 39.1 million |
| GHG Emissions | 440.36 $MMTCO_2e$ |
| GHG Emissions per Capita | 11.3 metric tons $CO_2e$ per person |
| GHG Emissions per GDP | 197 metric tons $CO_2e$ per million dollars |

Source: CARB 2017b

**Exhibit 15-2. Trends in California Greenhouse Gas Emissions (Years 2000 to 2015)**

## GLOBAL WARMING POTENTIAL

GWP is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere (its "atmospheric lifetime"). The GWP of each gas is measured relative to $CO_2$; therefore, $CO_2$ has a GWP of 1. The other main GHGs that have been attributed to human activity include methane, which has a GWP of 28, and nitrous oxide, which has a GWP of 265 (IPCC 2019). For example, 1 ton of methane has the same contribution to the greenhouse effect as approximately 28 tons of $CO_2$. GHGs with lower emissions rates than $CO_2$ may still contribute to climate change, because they are more effective than $CO_2$ at absorbing outgoing infrared radiation (i.e., they have a high GWP). The concept of Carbon Dioxide Equivalent ($CO_2e$) is used to account for the different GWP potentials of GHGs to absorb infrared radiation. GHG emissions are typically measured in terms of pounds or tons of $CO_2e$, and are often expressed in metric tons (MT) $CO_2e$.

Climate change is a global issue because GHGs can have global effects, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern (see Section 3.3, "Air Quality"). Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years), or long enough to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule depends on multiple variables, more $CO_2$ is currently emitted into the atmosphere than is stored or "sequestered."

## 15.1.3 ENERGY SERVICES AND DEMANDS

### ELECTRICAL AND NATURAL GAS SERVICES

In 2016, the total system power for California was 290,567 gigawatt-hours (GWh) of electricity, of which approximately 198,227 GWh of electricity was generated in-state (CEC 2017a).

In Placer County, including the city of Auburn, electrical and natural gas services are provided by Pacific Gas and Electric Company (PG&E), one the largest combined natural gas and electrical energy companies in the United States. PG&E generates, transmits, and distributes electrical service to approximately 16 million people throughout its approximately 70,000-square-mile service area, which stretches north to south in California from Eureka to Bakersfield and west to east from the Pacific Ocean to the Sierra Nevada (PG&E 2017a).

PG&E owns approximately 106,700 circuit miles of electrical distribution lines and 18,400 circuit miles of electrical transmission lines. In 2016, PG&E delivered approximately 83,407 GWh of electricity within its service area (CEC 2017b); Placer County consumed approximately 3.5 percent (2,938 GWh) of that total (CEC 2017c).

PG&E provides natural gas service to Auburn through portions of its approximately 42,000 miles of natural gas distribution pipelines. Total natural gas throughput for PG&E is approximately 970 billion cubic feet (PG&E 2017b). In 2016, natural gas consumption in the PG&E service area totaled approximately 4,560 million therms (CEC 2017d), less than 1 percent (84 million therms) of which was consumed by users in Placer County (CEC 2017e).

### ENERGY SOURCES

PG&E provides power from a variety of sources, including nuclear, hydroelectric, natural gas, and renewable energy resources such as wind, geothermal, biomass, solar, and small hydro, as detailed in Table 15-1 (PG&E 2017c). In 2016, 69 percent of energy delivered by PG&E was from non-GHG-generating sources. PG&E owns and operates four solar plants, and has connected more than 300,000 private rooftop solar customers to its energy grid. PG&E's hydroelectric system spans nearly 500 miles and has a generating capacity of nearly 3,900 megawatts total from 66 powerhouses.

**Table 15-1. Pacific Gas and Electric Company Electrical Power Mix, 2016**

| Electrical Sources | Percent |
|---|---|
| Non-emitting Nuclear | 24* |
| Large Hydroelectric | 12* |
| Renewable[1] | 33* |
| **Natural Gas/Other** | 17 |
| Other Unspecified[2] | 14 |

Notes:

[1] Renewable energy sources include wind, geothermal, biomass, solar, and small hydro. These energy sources are considered eligible to meet California's renewable portfolio standard of 33 percent renewable energy generation by 2020.

[2] "Other unspecified" sources refer to electricity that is not traceable to specific generation sources by any auditable contract.

* These resources are greenhouse gas–free.

Source: PG&E 2017c

### ENERGY USE FOR TRANSPORTATION

Transportation is the largest energy-consuming sector in California, accounting for approximately 39 percent of all energy use in the state (U.S. Energy Information Administration 2016). More motor vehicles are registered in California than in any other state, and commute times in California are among the longest in the country.

Types of transportation fuel have diversified in California and elsewhere. Historically gasoline and diesel fuel accounted for nearly all demand; now, however, numerous options are available, including ethanol, natural gas, electricity, and hydrogen. Despite advancements in alternative fuels and clean-vehicle technologies, gasoline and diesel remain the primary fuels used for transportation in California, with 15.1 billion gallons of gasoline and 4.2 billion gallons of diesel consumed in 2015 (CEC 2017f, 2017g).

The Sacramento Area Council of Governments (SACOG) prepared a regional analysis of vehicle miles traveled (VMT) and found average daily VMT for Placer County, excluding Tahoe Basin, to be approximately 8,605. This travel demand is forecast to increase to 11,360 in 2020 and to 13,762 in 2036 under the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (SACOG 2016). Within the SACOG region (which includes Placer County), the population growth rate has been greater than the rate of increase of total VMT, resulting in a reduction in VMT per capita from 2000 through 2012. VMT forecasts project a continuation of this declining per-capita VMT trend for the region through 2036 (SACOG 2016). The SACOG 2016 MTP/SCS identifies several policies and factors as supporting this declining trend in per-capita VMT. Among these factors are the trend toward more compact development, with more residents able to find jobs, schools, shopping, and other activities closer to their place of residence, and proposed improvements in transit and walkability that promote a shift away from reliance on private vehicles for transportation.

## 15.2 REGULATORY SETTING

Although federal, state, regional, and local GHG-related plans, policies, and regulations do not directly apply to the proposed project, the information below is helpful for understanding the cumulative context for GHG emissions impacts and strategies to reduce GHG emissions.

### 15.2.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

The U.S. Environmental Protection Agency (EPA) is responsible for implementing the federal Clean Air Act (CAA). On April 2, 2007, the U.S. Supreme Court held that EPA must consider regulation of GHG emissions from motor vehicles. In *Massachusetts v. Environmental Protection Agency et al.*, 12 states and cities (including California) along with several environmental organizations sued to require EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 [2007]). The Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and that EPA has the authority to regulate GHGs.

#### U.S. ENVIRONMENTAL PROTECTION AGENCY "ENDANGERMENT" AND "CAUSE OR CONTRIBUTE" FINDINGS

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- *Endangerment Finding:* The current and projected concentrations of the six key GHGs—$CO_2$, methane, nitrous oxide, hydrofluorocarbons, perfluorinated chemicals, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- *Cause or Contribute Finding:* The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to GHG pollution, which threatens public health and welfare.

### MANDATORY GREENHOUSE GAS REPORTING RULE

On September 22, 2009, EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (House of Representatives Bill 2764; Public Law 110-161), which required EPA to develop "…mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy…." The Reporting Rule applies to most entities that emit 25,000 MT $CO_2e$ or more per year. Since 2010, facility owners have been required to submit an annual GHG emissions report with detailed calculations of the facility's GHG emissions. The Reporting Rule also mandates compliance with recordkeeping and administrative requirements to enable EPA to verify annual GHG emissions reports.

### COUNCIL ON ENVIRONMENTAL QUALITY GUIDANCE

On December 18, 2014, the Council on Environmental Quality (CEQ) released revised draft guidance that superseded the draft GHG and climate change guidance released by CEQ in February 2010. The revised draft guidance applied to all proposed federal agency actions, including land and resource management actions. This guidance explained that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action (CEQ 2014). The guidance encouraged agencies to draw from their experience and expertise to determine the appropriate level (broad, programmatic, or project- or site-specific) and type (quantitative or qualitative) of analysis required to comply with the National Environmental Policy Act. The guidance recommended that agencies consider emissions of 25,000 MT $CO_2e$ per year as a reference point below which a quantitative analysis of GHG emissions is not recommended unless it is easily accomplished based on available tools and data (CEQ 2014).

On August 1, 2016, an updated version of the CEQ guidelines was published. This document did not establish a numeric threshold for GHG emissions. Agencies were directed to consider the potential effects of a proposed action and alternatives on climate change as indicated by assessing GHG emissions (e.g., to include carbon sequestration where applicable) (CEQ 2016). However, this guidance was withdrawn on April 5, 2017 (CEQ 2017). The withdrawn guidance was not a regulation and the withdrawal does not change any law, regulation, or other legally binding requirement.

### U.S. ENVIRONMENTAL PROTECTION AGENCY AND NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION STANDARDS

EPA and the National Highway Traffic Safety Administration (NHTSA) implemented national GHG emission and fuel economy standards for model year 2012–2016 light-duty cars and trucks. The second phase of the standards includes GHG and fuel economy standards for model years 2017–2025. The 2017–2025 standards are anticipated to save approximately 4 billion barrels of oil and 2 billion MT of GHG emissions. In 2025, if all

standards are met through fuel efficiency improvements, the average industry fleetwide fuel efficiency for light-duty cars and trucks would be approximately 54.5 miles per gallon (EPA 2012).

In addition to standards for light-duty cars and trucks, EPA and NHTSA have implemented Phase 1 of the Medium- and Heavy-Duty Vehicle GHG Emissions and Fuel Efficiency Standards, which apply to model years 2014–2018. It is anticipated that medium- and heavy-duty vehicles built to these standards from 2014–2018 will reduce $CO_2$ emissions by approximately 270 million MT over their lifetimes (EPA 2012). Phase 2 of these standards apply to model years 2021–2027 and would reduce GHG emissions by 1 billion MT over the lifetimes of those vehicles (EPA 2015). In addition to reducing GHG emissions and improving fuel efficiency, the standards are anticipated to generate research and development jobs focused on advanced cost-effective technologies for cleaner and more efficient commercial vehicles.

#### RENEWABLE FUEL STANDARD PROGRAM

Created by the Energy Policy Act of 2005, which amended the CAA, the Renewable Fuel Standard program established requirements for volumes of renewable fuel used to replace petroleum-based fuels. The four renewable fuels accepted as part of the Renewable Fuel Standard program are biomass-based diesel, cellulosic biofuel, advanced biofuel, and total renewable fuel. The 2007 Energy Independence and Security Act expanded the program and its requirements to include long-term goals of using 36 billion gallons of renewable fuels and extending annual renewable-fuel volume requirements to year 2022. The four renewable fuels have specific renewable fuel-blending requirements for obligated parties such as refiners and importers of gasoline or diesel fuel. EPA implements the program in consultation with U.S. Departments of Agriculture and Energy.

### 15.2.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

The legal framework for GHG emission reductions has come about through executive orders, legislation, and regulations. The major components of California's climate change initiatives are outlined below.

#### ASSEMBLY BILL 1493

Assembly Bill (AB) 1493 required that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state." These stricter emissions standards were designed to apply to automobiles and light trucks beginning with model year 2009. In June 2009, the EPA Administrator granted a CAA waiver of preemption to the State of California, allowing the state to implement its own GHG emissions standards for motor vehicles beginning with model year 2009. California agencies worked with federal agencies to conduct joint rulemaking to reduce GHG emissions for passenger car model years 2017–2025.

#### EXECUTIVE ORDER S-3-05

Executive Order S-3-05, issued in recognition of California's vulnerability to the effects of climate change, set forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

## ASSEMBLY BILL 32

In 2006, California enacted AB 32, the California Global Warming Solutions Act (California Health and Safety Code Section 38500 et seq.). AB 32 further details and puts into law the midterm GHG reduction target established in Executive Order S-3-05: reduce GHG emissions to 1990 levels by 2020. AB 32 also identifies CARB as the state agency responsible for designing and implementing emissions limits, regulations, and other measures to meet the target.

In December 2008, CARB adopted the Climate Change Scoping Plan (Scoping Plan), which includes California's main strategies for achieving the GHG reductions required by AB 32 (CARB 2008). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of California's GHG inventory. CARB acknowledges that land use planning decisions will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors.

CARB is required to update the Scoping Plan at least once every 5 years to evaluate progress and develop future inventories that may guide this process. CARB approved the *First Update to the Climate Change Scoping Plan: Building on the Framework* (2014 Scoping Plan Update) in June 2014 (CARB 2014). The 2014 Scoping Plan Update includes a status of the 2008 Scoping Plan measures and other federal, state, and local efforts to reduce GHG emissions in California, and potential actions to further reduce GHG emissions by 2020. The 2014 Scoping Plan Update determined that the state is on schedule to achieve the 2020 target (i.e., 1990 levels by 2020). However, an accelerated reduction in GHG emissions is required to achieve the Executive Order S-3-05 emissions reduction target of 80 percent below 1990 levels by 2050.

The statewide measures adopted under the direction of AB 32, and as outlined in the Scoping Plan, would reduce GHG emissions associated with existing and new development. In November 2017, CARB released *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target* (2017 Scoping Plan Update) (CARB 2017c). The 2030 target of a 40 percent reduction in GHG emissions below 1990 statewide GHG emissions (consistent with Executive Order B-30-15, which is outlined below) guides the 2017 Scoping Plan Update (CARB 2017c). The 2017 Scoping Plan Update establishes a plan of action, consisting of a variety of strategies to be implemented rather than a single solution, for California to reduce statewide emissions by 40 percent by 2030 compared to 1990 levels (CARB 2017c).

## EXECUTIVE ORDER B-30-15

In April 2015, Governor Edmund G. Brown Jr. issued an executive order establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and the goal in Governor Brown's Executive Order S-3-05 of reducing statewide emissions 80 percent below 1990 levels by 2050. In addition, the executive order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

## SENATE BILL 32

Approval of Senate Bill (SB) 32 in September 2016 extended the provisions of AB 32 from 2020 to 2030 with a new target of 40 percent below 1990 levels by 2030. The companion bill, AB 197, added two nonvoting members to CARB; created the Joint Legislative Committee on Climate Change Policies, consisting of at least three

senators and three Assembly members; required additional annual reporting of emissions; and required that Scoping Plan updates include alternative compliance mechanisms for each statewide reduction measure, along with market-based compliance mechanisms and potential incentives.

### EXECUTIVE ORDER S-1-07

Executive Order S-1-07 acknowledges that the transportation sector is the main source of GHG emissions in California. The order established a goal of reducing the carbon intensity of fuels for mobile, stationary, and portable emissions sources sold in California by a minimum of 10 percent by 2020. It also directed CARB to determine whether this Low Carbon Fuel Standard could be adopted as a discrete, early-action measure after meeting the mandates in AB 32. CARB adopted the Low Carbon Fuel Standard on April 23, 2009.

### SENATE BILL 97

SB 97, signed by the Governor in August 2007, acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The California Natural Resources Agency adopted those guidelines on December 30, 2009, and the guidelines became effective March 18, 2010.

### SENATE BILL 375

SB 375, signed by the Governor in September 2008, aligned regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 required metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy that will prescribe land use allocation in that MPO's regional transportation plan. CARB adopted regional GHG targets for passenger vehicles and light trucks for 2020 and 2035 for the 18 MPOs in California. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" to meet the targets.

### CALIFORNIA AIR RESOURCES BOARD ADVANCED CLEAN CARS PROGRAM/ZERO EMISSION VEHICLE PROGRAM

AB 1493 (Chapter 200, Statutes of 2002), also known as the Pavley regulations, required CARB to adopt regulations by January 1, 2005, that would result in the achievement of the "maximum feasible" reduction in GHG emissions from vehicles used in the state primarily for noncommercial, personal transportation.

In January 2012, CARB approved a new emissions-control program for model years 2017–2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards called Advanced Clean Cars (California Code of Regulations [CCR] Title 13, Sections 1962.1 and 1962.2 [13 CCR Sections 1962.1 and 1962.2]). The Advanced Clean Cars requirements include new GHG standards for model year 2017–2025 vehicles. CARB anticipates that the new standards will reduce motor vehicle GHG emissions by 34 percent in 2025. A midterm review of the program, released in 2017, includes CARB's technical analysis of adopted GHG and particulate matter emission standards for low-emission vehicles and regulatory requirements for zero-emission vehicles, as well as recommended next steps for each of the adopted requirements (CARB 2017d).

The Advanced Clean Cars program also includes the Low-Emission Vehicle III amendments to the low-emission vehicle regulations (13 CCR Section 1900 et seq.), the Zero-Emission Vehicle program, and the Clean Fuels Outlet regulation. The Zero-Emission Vehicle program is designed to achieve California's goals for long-term emission reductions by requiring manufacturers to offer for sale specific numbers of the very cleanest cars available. These zero-emission vehicles, which include battery electric, fuel cell, and plug-in hybrid electric vehicles, have now entered the marketplace. They are expected to be fully commercial by 2020. The Clean Fuels Outlet regulation is intended to ensure that fuels such as electricity and hydrogen are available to meet the needs of the new advanced technology vehicles as they come to market.

### EXECUTIVE ORDER B-16-12

Executive Order B-16-12 orders state entities under the direction of the Governor including CARB, the California Energy Commission, and the California Public Utilities Commission to support the rapid commercialization of zero-emission vehicles. The order directs these entities to achieve various benchmarks related to zero-emission vehicles, including:

- infrastructure to support up to 1 million zero-emission vehicles by 2020,
- widespread use of zero-emission vehicles for public transportation and freight transport by 2020,
- more than 1.5 million zero-emission vehicles on California roads by 2025,
- annual displacement of at least 1.5 billion gallons of petroleum fuels by 2025, and
- a reduction of GHG emissions from the transportation sector equaling 80 percent below 1990 levels by 2050.

### EXECUTIVE ORDER S-01-07 (LOW CARBON FUEL STANDARD)

Executive Order S-01-07 (17 CCR Section 95480 et seq.) requires the state to achieve a 10 percent or greater reduction by 2020 in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the Low Carbon Fuel Standard as a discrete early-action item under AB 32, and issued the final resolution (No. 09-31) adopting the standard on April 23, 2009. CARB readopted the Low Carbon Fuel Standard in 2015.

### SENATE BILLS 1078 AND 107, EXECUTIVE ORDERS S-14-08 AND S-21-09, AND SENATE BILL 350

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Executive Order S-14-08 expanded the state's Renewable Portfolio Standard to 33 percent renewable power by 2020. Executive Order S-21-09 directs CARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020.

The 33 percent-by-2020 goal and requirements were codified in April 2011 with SB X1-2. This new Renewable Portfolio Standard applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. Consequently, PG&E, which would be the electricity provider for the proposed project, must meet the 33 percent goal by 2020. SB 350 (2015) increased the renewable-source requirement to 50 percent by 2030.

These requirements reduce the carbon content of electricity generation, and would reduce GHG emissions associated with both existing and new development, including new development on the project site.

In January 2016, the California Public Utilities Commission reported that California's three largest investor-owned utilities—PG&E, Southern California Edison, and San Diego Gas and Electric Company—collectively provided 26.6 percent of their 2014 retail electricity sales using renewable sources and are continuing progress toward meeting the future 2020 requirements (CPUC 2016).

#### CALIFORNIA GREEN BUILDING STANDARDS CODE

In January 2010, the State of California adopted the California Green Building Standards Code, which establishes mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a set of minimum requirements and more rigorous voluntary measures for new construction projects to achieve specific green building performance levels. This code went into effect as part of local jurisdictions' building codes on January 1, 2011.

The 2013 update to the California Green Building Standards Code became effective in January 2014. Another update to the energy efficiency standards became effective January 1, 2017. This update to the Building Energy Efficiency Standards will improve the energy efficiency of newly constructed buildings and of additions and alterations to existing buildings. The new standards address nonresidential development as well, and build on the energy efficiency progress made in previous iterations.

### 15.2.3 LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

#### SACRAMENTO AREA COUNCIL OF GOVERNMENTS

SACOG is designated by the U.S. government and the State of California as the MPO for the area and is responsible for developing a regional transportation plan (i.e., MTP) in coordination with Sacramento, Yolo, Yuba, Sutter, El Dorado, and Placer counties and the 22 cities within those counties (excluding the Tahoe Basin). This plan incorporates countywide transportation planning covering a 20-year planning horizon, which must be updated every 4 years. As a requirement of SB 375, MPOs need to develop a sustainable communities strategy as part of the MTP to identify strategies and policies to reduce GHG emissions from passenger vehicles to meet state targets established by CARB.

SACOG's MTP/SCS for 2035 was adopted on April 19, 2012. SACOG's MTP/SCS calls for meeting and exceeding CARB's GHG reduction goals for passenger vehicles and light-duty trucks of 7 percent by 2020 and 16 percent by 2035, where 2005 is the baseline year for comparison (SACOG 2012). SACOG's 2016 MTP/SCS was adopted on February 18, 2016 (SACOG 2016). The 2016 MTP/SCS demonstrates how the region can accommodate expected regional population growth and the increased demand for transportation in the region, while also showing that the region could achieve a reduction in per-capita passenger VMT.

SACOG has created a framework for describing the MTP/SCS that is made up of community types. Local land use plans (e.g., adopted and proposed general plans, specific plans, master plans, corridor plans) were divided into one of five community types based on the location of the plans. The project site is in the community type identified by the MTP/SCS as a "Developing Community" (SACOG 2016):

Developing Communities are typically, though not always, situated on vacant land at the edge of existing urban or suburban development; they are the next increment of urban expansion. Developing Communities are identified in local plans as special plan areas, specific plans, or master plans and may be residential-only, employment-only, or a mix of residential and employment uses. Transportation options in Developing Communities often depend, to a great extent, on the timing of development. Bus service, for example, may be infrequent or unavailable today, but may be available every 30 minutes or less once a community builds out. Walking and bicycling environments vary widely though many Developing Communities are designed with dedicated pedestrian and bicycle trails.

The MTP/SCS includes 31 policies and multiple strategies to address the principles of smart land use; environmental quality and sustainability; financial stewardship; economic vitality; access and mobility; and equity and choice. Highlights of MTP/SCS policies include:

- Implement the Rural-Urban Connection Strategy (RUCS) which ensures good rural-urban connections and promotes the economic viability of rural lands while also protecting open space resources to expand and support the implementation of the Blueprint growth strategy and the MTP/SCS.
- Support and invest in strategies to reduce vehicle emissions that can be shown as cost effective to help achieve and maintain clean air and better public health.
- Use the best information available to implement strategies and projects that lead to reduced GHG emissions.
- Consider strategies to green the system, such as quieter pavements, cleaner vehicles, and lower energy equipment where cost effective, and consider regional funding contributions to help cover the incremental cost.
- SACOG encourages locally determined developments consistent with Blueprint principles and local circulation plans to be designed with walking, bicycling, and transit use as primary transportation consideration.

### PLACER COUNTY AIR POLLUTION CONTROL DISTRICT

Placer County Air Pollution Control District (PCAPCD) regulates local air quality and air pollutant emissions sources in Placer County. In its *CEQA Air Quality Handbook*, PCAPCD includes a chapter that outlines guidance for analyzing construction emissions, including GHG emissions, and a GHG-specific chapter that discusses the recommended approach to evaluating operational GHG emissions. PCAPCD also includes a list of analysis expectations and methodologies for CEQA analyses.

On October 13, 2016, the PCAPCD Board of Directors adopted the Review of Land Use Projects under CEQA Policy, which established thresholds of significance for GHG emissions. In developing the thresholds, the district took into account health-based air quality standards and the strategies to attain air quality standards, historical CEQA project review data in Placer County, statewide regulations to achieve GHG emission reduction targets, and the geographic and land use features of Placer County. PCAPCD's GHG thresholds of significance are discussed further in Section 15.3.2, "Thresholds of Significance," below.

## 15.3 IMPACTS

### 15.3.1 ANALYSIS METHODOLOGY

GHG emissions have the potential to adversely affect the environment because such emissions contribute cumulatively to global climate change. It is unlikely that a single project will contribute significantly to climate change, but cumulative emissions from many projects could affect global GHG concentrations and the climate system. Therefore, impacts are analyzed within the context of the potential contribution to the cumulatively significant impact of climate change.

### 15.3.2 THRESHOLDS OF SIGNIFICANCE

Based on the State CEQA Guidelines, the proposed project would result in a potentially significant impact related to GHG emissions if it would:

- generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

PCAPCD has developed recommendations for GHG emissions significance thresholds: a "bright line" threshold of 10,000 MT $CO_2e$ per year for the construction and operational phases of development projects, or for stationary sources (PCAPCD 2017); and a "*de minimis*" threshold of 1,100 MT $CO_2e$ per year for the operational phases of projects. According to PCAPCD's guidance, one of the efficiency thresholds should be used for projects where the operational phase would exceed this *de minimis* level. The efficiency thresholds reflect different expectations for urban and rural development in Placer County and for residential and nonresidential developments:

- *Residential projects:* Urban threshold, 4.5 MT $CO_2e$ per year per capita; rural threshold, 5.5 MT $CO_2e$ per year per capita
- *Nonresidential projects:* Urban threshold, 26.5 MT $CO_2e$ per year per thousand square feet of building space; rural threshold, 27.3 MT $CO_2e$ per year per thousand square feet of building space

According to PCAPCD, local lead agencies would identify whether each project is in an urban or a rural setting (PCAPCD 2016).

Appendix F of the State CEQA Guidelines provides guidance for assessing impacts related to energy supplies, focusing on the goal of conserving energy by ensuring that projects use energy wisely and efficiently, including a list of six environmental impacts related to use of energy in Section II(c). For the purposes of this SEIR, energy impacts are considered significant if the proposed project would:

- develop land use patterns that cause wasteful, inefficient, and unnecessary consumption of energy; or
- require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

## 15.3.3 IMPACT ANALYSIS

| | |
|---|---|
| IMPACT 15-1 | Greenhouse Gas Emissions and Energy— *The project would generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment.* |
| Significance | *Less than Significant* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

### 2019 HFRP TRAIL EXPANSION IMPACT ANALYSIS

The project would include direct and indirect GHG emissions from project construction and operations. Construction is considered a direct source since these emissions occur at the site. Direct operational-related GHG emissions for the proposed project would include emissions from area and mobile sources, while indirect emissions are from energy consumption, water demand, and solid waste.

Short-term construction of the project would generate GHG emissions. Construction-related GHG emissions would be generated by vehicle engine exhaust from construction equipment, haul trips, and construction worker trips. GHG emissions generated by the project would consist primarily of $CO_2$. Emissions of other GHGs, such as $CH_4$ and $N_2O$, are important with respect to global climate change; however, even when considering the higher GWPs of these other GHGs, their contribution to total GHG emissions is small compared with $CO_2$ emissions from the project's emission sources (i.e., construction equipment and on-road vehicles). However, where appropriate emission factors were available, emissions of $CH_4$ and $N_2O$ were included in the analysis of the project.

Construction of the project would generate a peak of approximately 3,791 MT $CO_2e$ during the grading phase. These emissions are generated by operation of heavy-duty construction equipment, haul trucks, and construction worker vehicles. The construction-related GHG emissions would not exceed the PCAPCD construction threshold of 10,000 MT$CO_2e$ per year. Therefore, project construction would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment.

Operational or long-term emissions occur over the life of the proposed project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities. As described above the PCAPCD adopted a GHG operational threshold of 10,000 MT $CO_2e$ per year and a De Minimis level threshold of 1,100 MT $CO_2e$. According to the PCAPCD, the De Minimis level for the operational phases represents an emissions level which can be considered as less than cumulatively considerable and excluded from additional analysis. Modeling output for operation of the proposed project is estimated to be approximately 6,419 MT $CO_2e$ per year, which exceeds the PCAPCD De Minimis threshold but not the operational threshold of 10,000 MT $CO_2e$ per year that represents a bright line threshold. Since the PCAPCD does not have an efficiency matrix for "Parks" land uses in order to utilize the De Minimis threshold, the bright line

threshold was utilized for this SEIR analysis. GHG impacts would be under the operational threshold of 10,000 MT $CO_2e$ and would therefore be **less than significant**.

| | |
|---|---|
| IMPACT 15-2 | Greenhouse Gas Emissions and Energy— *The project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing greenhouse gas emissions.* |
| Significance | *Less than Significant* |
| Mitigation Proposed | *None Warranted* |
| Residual Significance | *Less than Significant* |

None of the measures listed in the CARB *Climate Change Scoping Plan* (CARB 2008), which contains the main strategies that California would use to achieve emission reductions necessary to meet the goals of AB 32, relate directly to construction activities. The scoping plan includes some measures that would indirectly address GHG emissions levels associated with construction activity, such as the phasing in of cleaner technology for diesel engine fleets (including construction equipment) and the development of a low-carbon fuel standard. However, successful implementation of these measures depends primarily on the development of laws and policies at the state level. It is assumed that those policies formulated under the mandate of AB 32 that apply to construction-related activity, either directly or indirectly, would be implemented during construction of the project, if those policies and laws were in fact developed and adopted before the start of project construction. Therefore, project construction is not expected to conflict with the scoping plan.

The proposed project would be required to comply with existing regulations or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent Renewable Portfolio Standards). As such, the project would not conflict with any other state-level regulations pertaining to GHGs. Thus, implementation of the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and this impact would be **less than significant**.

## 15.4 MITIGATION MEASURES

No mitigation measures are necessary.

# 16.0 WILDFIRE

The 2010 HFRP Certified EIR considered the potential for construction and operation of the park to expose people and structures to wildfires. However, the State CEQA Guidelines were amended in 2019 to include new thresholds related to wildfire. Because the 2010 HFRP Certified EIR was prepared prior to adoption of the 2019 amendments and because the County is conducting a Subsequent EIR Analysis, evaluation of the potential for park operations to create wildfire related impacts is evaluated for both the existing HFRP and the proposed trails expansion areas.

This section describes wildfire conditions and wildfire behavior, identifies the California Department of Forestry and Fire Protection (CAL FIRE) fire hazard severity zones for the existing HFRP and proposed trail expansion areas, and describes the CAL FIRE battalion that would provide first response to wildfires in the project area. Impacts are evaluated relative to the potential for the proposed project to exacerbate wildfire risks or expose people or structures to significant risks.

## 16.1 SUMMARY OF FINDINGS FROM THE 2010 HFRP CERTIFIED EIR

Chapter 13 of the 2010 HFRP Certified EIR included an analysis of wildfire impacts. Impact 13-3, "Public Services and Utilities – Increase in Demand for Fire Services" discussed the park environmental and regulatory setting, potential impacts associated with the risk of wildfire and a potential increase in demand for fire services as a result. Construction and use of the park facilities could cause an increase in the potential for wildfires. However, with the implementation of fire suppression measures, including the establishment and maintenance of 120 acres of shaded fuel breaks, helicopter landing zones, construction of emergency access bridges over Raccoon Creek, an emergency water storage tank with hydrant, advanced notice to CAL FIRE of any events having greater than 30 vehicles (or over 100 people), and consultation with CAL FIRE on local fire conditions, all of which would improve CAL FIRE's ability to respond more quickly to fires and would reduce the severity and size of potential fires, the project was not expected to cause a significant increase in the demand for fire services, and the impact was considered to be **less than significant**.

## 16.2 ENVIRONMENTAL SETTING

### 16.2.1 CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

The existing HFRP and proposed Trails Expansion area are within CAL FIRE's Nevada-Yuba-Placer Unit (CAL FIRE 2018a). The CAL FIRE Nevada-Yuba-Placer Unit (Unit) encompasses all of Nevada, Yuba, Placer, Sierra, and Sutter counties and extends from the Sacramento Valley floor over the crest of the Sierra Nevada to the Nevada state line. The total acreage in the Unit is 2,911,086, with approximately 1,200,000 acres served by CAL FIRE. Of the total acres, approximately 65 percent is forested land. The balance of acres divides nearly equally between grass and brush (CAL FIRE 2018a). CAL FIRE strives to extinguish 95 percent of all wildland fires at 10 acres or less.

The Unit provides various levels of fire protection service through cooperative agreements with three counties and six fire districts. At peak season, the Unit staffs 18 fire stations, an air attack base, a conservation camp (with five year-round hand crews), five Registered Professional Foresters skilled in forest management, four lookouts, fire-prevention bureau, and a pre-fire planning office. In addition, the Unit maintains three bulldozer/transport

combinations, a road grader, front-loader and dump truck with numerous operators skilled in all aspects of equipment operations, including bulldozer firefighting operations (CAL FIRE 2018a).

The existing HFRP and proposed Trail Expansion areas are within Battalion 18 of CAL FIRE's Nevada-Yuba-Placer Unit (CAL FIRE 2018a). Battalion 18 is described below.

#### BATTALION 18

Battalion 18 includes unincorporated areas within Placer County and northwest Auburn. Highway 80 borders the eastern portion of the battalion and Highway 193 comprises the southern boundary. The topography is characteristic of the Sierra Nevada foothills containing gentle slopes in the flat valley areas to steep inner gorge canyons along upper watercourses. Fuels are a mosaic of grasses, mixed brush, oak woodlands and mixed hardwood-conifer (CAL FIRE 2018a).

Two staffed Placer County Fire Department/CAL FIRE stations are in the Battalion 18 response area. The Atwood Station (#180) houses two engines and a ladder truck – staffing at this station allows for two of the three vehicles to be used at one time; the Ophir Station (#182) houses one engine and a water tender – staffing at this station allows for one of the vehicles to be used at a time. In the Lincoln Battatlion, Lincoln Station (#70) has one engine. CAL FIRE staffing levels are generally greater in the summer months (during fire season) and lower in winter months because of the reduced demand for fire services. Placer County Fire Department staffing levels remain consistent throughout the year.

Most wildfires in the Battalion 18 service area have resulted from undetermined causes (35 percent). Other common fire causes within the Battalion 18 service area include debris escape (22 percent), miscellaneous ignitions (11 percent), and vehicles and equipment (18 percent) (CAL FIRE 2018a).

According to CAL FIRE, there have been 14 fires that burned over 20 acres within 10 miles of HFRP and the expansion area in the past 55 years. Causes included lightning strikes, downed power lines, and motor vehicles (DiMaggio, pers. comm., 2018). Since the opening of HFRP in 2006, there have been no known wildland fires originated by HFRP users.

### 16.2.2 PLACER COUNTY FIRE DEPARTMENT

Through a Cooperative Fire Protection Agreement with CAL FIRE, Placer County Fire Department integrates state and local firefighting resources, both career and volunteer, into an effective combination fire department. Through its contract with CAL FIRE, the County pays for 60 firefighters at eight, 24/7 fire stations, located in Alta, Colfax, Bowman, North Auburn, Ophir, Lincoln, Dry Creek and the Sunset Area in western Placer.

To reduce response times in North Auburn, Placer County Fire Department/CAL FIRE is seeking resources to staff the currently-closed fire station located on the northeast corner of the intersection of Lone Star Road and Highway 49 (Lone Star Station #184). Staffing and reopening Station #184 would improve response times to all the properties north of Dry Creek Road, including the expansion properties (see Section 13.0, "Public Services" for further discussion).

### 16.2.3 WILDFIRE CLASSIFICATIONS AND BEHAVIOR

Fires are classified by where in the fuel strata they burn: surface fires, understory fires, and crown fires (California Forest Stewardship Program 2015). Surface fires are the most common. Depending on the fuels, weather, and topography, these fires can be low to high intensity. Understory fires have flame lengths up to 10 feet. They consume surface fuels, small trees, brush, and lower branches of overstory trees. Crown fires reach into the crowns of trees with flame lengths more than 10 feet.

Fire season is the period when fires are expected to occur, based on knowledge of long-term climate patterns. The fire season in Placer County, including the existing HFRP and proposed Trails Expansion area, occurs generally in late May through November (CAL FIRE 2018a). Red Flag warnings are common throughout summer and are largely attributed to low relative humidity and unusually strong north winds (CAL FIRE 2018a).

Wildland fire behavior is based on three primary factors: topography, weather, and fuels. The following discussion briefly describes how each of these factors influences wildfire behavior within the existing HFRP and proposed Trail Expansion areas.

#### TOPOGRAPHY

Topographic features such as slope and aspect influence a fire's intensity, direction, and rate of spread. Fires burning in flat or gently sloping areas tend to burn more slowly and spread in wider ellipses than fires on steep slopes. Streams, rivers, and canyons can channel local diurnal and general winds, which can accelerate the fire's speed and affect its direction, especially during foehn (warm, dry, and unusually strong) wind events (California Forest Stewardship Program 2015).

The topography of the existing HFRP and proposed trail expansion area is characteristic of the Sierra Nevada foothills, containing gentle slopes in the flat valley areas to steep inner gorge canyons along upper watercourses. Elevations range in the Harvego Preserve from approximately 500 feet above mean sea level (amsl) in the northwestern portion (along the Bear River) to 1,694 feet at Bald Rock Mountain. Elevations in the Outman Preserve range from 800 to 1,480 feet. The majority of the Liberty Ranch extends north from the highest point on Big Hill with an elevation of 1,613 feet. The Taylor Ranch ranges from 1,000 to 1,400 feet amsl and the Kotomyan Preserve ranges from approximately 1,300 to 1,500 feet amsl. The Twilight Ride parcel varies from approximately 1,100 to 1,200 feet amsl. See Exhibit 16-1 for a map that depicts areas of steep slope.

#### WEATHER

Weather conditions influence the potential for fire ignition, rates of spread, intensity, and the direction(s) toward which a fire burns. Temperature, relative humidity, and wind are the variables used to predict fire behavior. The Mediterranean Climate of the project area is characterized by hot, dry summers and cool, rainy winters. The average yearly temperature is approximately 72 degrees Fahrenheit ($^{o}$F). The average winter temperature is a moderate 49$^{o}$F. During summer, average temperatures often exceed 90$^{o}$F with extremely low humidity (Anchor Point 2012). The area's mean annual precipitation is 45 inches, which falls entirely as rain mostly during the winter months (November–February) (NOAA 2019).

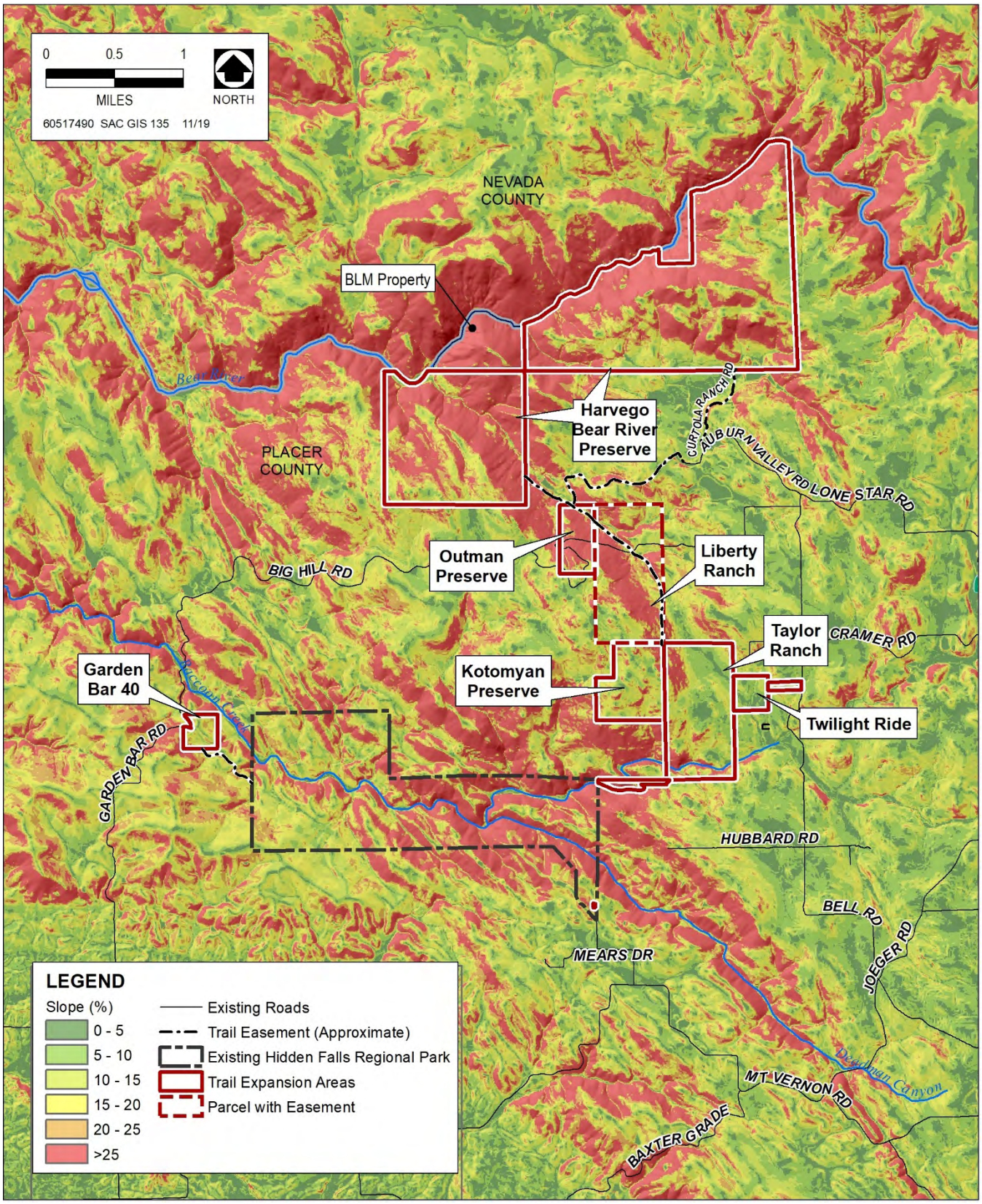



**Exhibit 16-1. Site Topography**

Wind plays a role in the flammability of fuels by removing moisture through evaporation, preheating fuels in a fire's path, and increasing spotting distances (the distance at which a flying ember might ignite a spot fire). Fires during foehn events can result in extreme fire behavior because they are particularly strong and dry, thus reducing fuel moistures (California Forest Stewardship Program 2015). Prevailing winds are from the south and southwest with an average wind speed of 5 miles per hour (Placer County 2012).

#### FUELS

Vegetation usually provides most of the fuel that feeds wildfire. The volume, character, distribution, and arrangement of vegetation all greatly influence fire behavior (California Forest Stewardship Program 2015). Fuels in the project area are composed of oak woodlands interspersed with annual grassland and riparian corridors (see Section 12.0, "Biological Resources," for further discussion).

Within the existing HFRP, fuel reduction activities are conducted based on the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* (Placer 2007). This plan identifies methods for modifying vegetation to reduce existing fuel loads and lower the chance a fire would start in HFRP and move outside the HFRP boundary (see Section 13.0 "Public Services and Utilities").

Shaded fuel breaks (SFB) are areas on the tops of hills where trees have been thinned, remaining trees have been trimmed of their lower branches, and shrubs and bushes have primarily been removed. SFB can be used by fire personnel to suppress the advancement of wildfires. The existing HFRP has 120 acres of SFB, and the Harvego Preserve has an additional 120 acres of SFB (see Exhibit 3.4 in Chapter 3.0, "Project Description"). The 120 acres of SFB at HFRP, and other key areas of this property, are mowed or grazed annually by goats and sheep to keep the lower vegetation maintained.

### 16.2.4 FIRE HAZARD SEVERITY ZONES

Fire hazard severity zones are measured qualitatively, based on vegetation, topography, weather, crown fire potential (a fire's tendency to burn upward into trees and tall brush), and ember production and movement within the area in question.

Fire prevention areas considered to be under state jurisdiction are referred to as "State Responsibility Areas" or SRAs, and CAL FIRE is responsible for vegetation fires within SRA lands.[1] In general, SRA lands contain trees producing, or capable of producing, forest products; timber, brush, undergrowth, and grass, whether of commercial value or not, that provide watershed protection for irrigation or for domestic or industrial use; or lands in areas that are principally used, or are useful for, range or forage purposes.

CAL FIRE is required to define three fire hazard levels for SRAs: moderate, high, and very high. As shown in Exhibit 16-2, HFRP and the proposed expansion area are in CAL FIRE zones designated as Moderate and High Fire Severity Zones (CAL FIRE 2007).[2] Areas bordering the Bear River north of the Harvego Preserve are rated

[1] California Public Resources Code (PRC) Sections 4125–4127 define a State Responsibility Area as lands in which the financial responsibility for preventing and suppressing wildland fire resides with the State of California.

[2] CAL FIRE's Online Fire Hazard Severity Zone viewer was accessed on April 23, 2019, to confirm the hazard severity zone rating for the project area (http://egis.fire.ca.gov/FHSZ/).

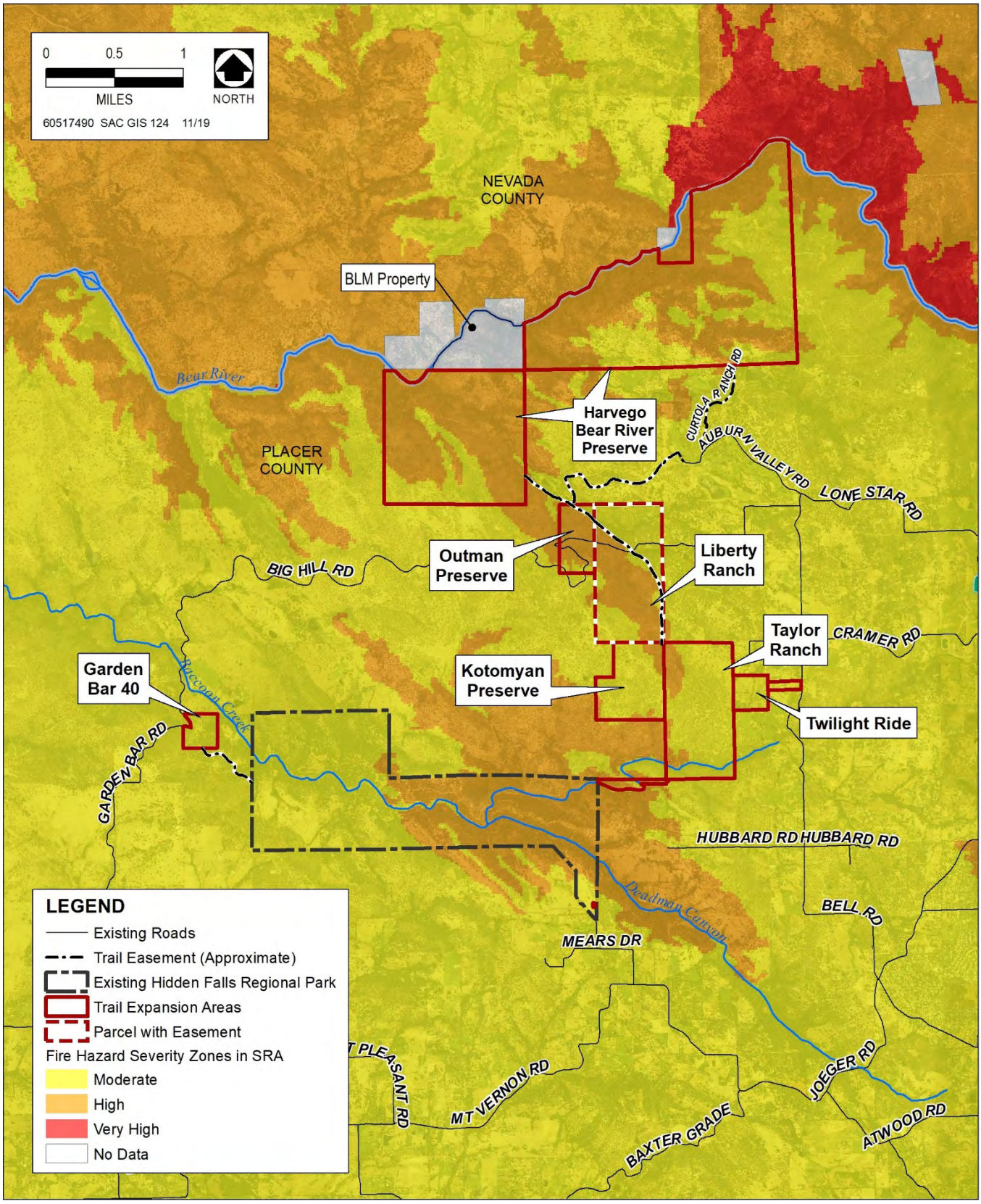



**Exhibit 16-2. Fire Hazard Severity Map**

as High and Very High Fire Hazard Severity Zones, and areas to the immediate south, west, and east of the project area are rated as Moderate or High Fire Hazard Severity Zone.

## 16.3 REGULATORY SETTING

### 16.3.1 FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

No federal plans, policies, regulations, or laws related to wildfire hazards are applicable to the proposed project.

### 16.3.2 STATE PLANS, POLICIES, REGULATIONS, AND LAWS

#### CALIFORNIA STRATEGIC FIRE PLAN

The 2018 California Strategic Fire Plan (CAL FIRE 2018b) is the statewide plan for reducing the risk of wildfire. The plan's basic principles are as follows:

- Involve the community in the fire management planning process.
- Assess public and private resources that could be damaged by wildfires.
- Develop pre-fire management solutions and implement cooperative programs to reduce the community's potential wildfire losses.

One of the more important objectives of the California Fire Plan pertains to pre-fire management solutions. Included within the realm of pre-fire management solutions are fuel breaks, the establishment of wildfire protection zones, and prescribed fires to reduce the availability of fire fuels. In addition, the plan recommends that clearance laws, zoning, and related fire safety requirements be implemented by state and local authorities to address fire-resistant construction standards, hazard reduction near structures, and infrastructure.

The California Fire Plan does not contain any specific requirements or regulations. It assesses current fire management practices and standards and recommends how best to improve the practices and standards in place.

#### CALIFORNIA PUBLIC RESOURCES CODE

##### Section 4427

PRC Section 4427 limits the use of any motor, engine, boiler, stationary equipment, welding equipment, cutting torch, tarpot, or grinding device from which a spark, fire, or flame may originate, when the equipment is located on or near land covered by forest, brush, or grass. Before such equipment may be used, all flammable material, including snags, must be cleared away from the area around such operation for 10 feet. A serviceable round-point shovel with an overall length of not less than 46 inches and a backpack pump water-type fire extinguisher, fully equipped and ready for use, must be maintained in the immediate area during the operation.

##### Section 4431

PRC Section 4431 requires users of gasoline-fueled internal combustion–powered equipment operating within 25 feet of flammable material on or near land covered by forest, brush, or grass to have a tool for firefighting purposes at the immediate location of use. This requirement is limited to periods when burn permits are necessary. Under Section 4431, the Director of Forestry and Fire Protection specifies the type and size of fire extinguisher

necessary to provide at least a minimum assurance of controlling fire caused by use of portable power tools during various climatic and fuel conditions.

### Section 4442

PRC Section 4442 prohibits the use of internal combustion engines running on hydrocarbon fuels on any land covered by forest, brush, or grass unless the engine is equipped with a spark arrestor and is constructed, equipped, and maintained in good working order when traveling on any such land.[3]

## 16.3.3 Local Plans, Policies, Regulations, and Ordinances

### Nevada-Yuba-Placer Unit Strategic Fire Plan

The Nevada-Yuba-Placer Unit Strategic Fire Plan implements the State Strategic Fire Plan and was developed based on the State Strategic Fire Plan goals. The Nevada-Yuba-Placer Unit priorities and goals are as follows:

**Priorities:**

1. To reduce the risks to citizens and emergency responders from wildland fire.
2. Develop a "land stewardship" ethic in the residents of the Unit.

**Goals:**

1. Demonstrate methods that individuals and the community can use to properly manage their lands to improve forest health and reduce the ignitability of structures in the Wildland Urban Interface.
2. Raise citizen and stakeholder awareness of fire risks and enlist their help and participation in risk reduction.
3. Assist local government in developing standards, policies, and plans, which will result in local, and landscape level fuel modifications.
4. Implement local and landscape level projects and programs that decrease fire risk and increase the potential for success on initial attack.

### Community Wildfire Protection Plan (CWPP)

According to the County's website, the Placer County Community Wildfire Protection Plan (CWPP) is the result of a community-wide planning effort that included extensive field data gathering, compilation of existing documents and geographic information system (GIS) data, and scientific analyses and recommendations designed to reduce the threat of wildfire-related damages to values at risk. Values at risk include people, property, ecological elements, and other human and intrinsic values within the project area. They are identified by inhabitants as important to the way of life in the study area, and are particularly susceptible to damage from

[3] A spark arrester is a device constructed of nonflammable materials used specifically to remove and retain carbon and other flammable particles larger than 0.0232 inch from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or that is qualified and rated by the U.S. Forest Service.

wildfire. The CWPP works in conjunction with and is supported and guided by the Strategic Fire Plans as outlined by CAL FIRE.

### PLACER COUNTY GENERAL PLAN

The following are the relevant goals and policies identified by the *Placer County General Plan* (General Plan) (Placer County 2013) for hazardous materials and hazards.

**GOAL 8.C:** To minimize the risk of loss of life, injury, and damage to property and watershed resources resulting from unwanted fires.

- **Policy 8.C.7.** The County shall work with local fire protection agencies, the California Department of Forestry and Fire Protection, and the U.S. Forest Service to promote the maintenance of existing fuel breaks and emergency access routes for effective fire suppression.
- **Policy 8.C.11.** The County shall continue to work cooperatively with the California Department of Forestry and Fire Protection and local fire protection agencies in managing wildland fire hazards.

### PLACER COUNTY LOCAL HAZARD MITIGATION PLAN

Placer County and 21 other jurisdictions prepared a Local Hazard Mitigation Plan (LHMP) update to the 2010 Federal Emergency Management Agency (FEMA) approved Placer County Multi-Hazard Mitigation Plan. The LHMP assesses the likely effects of wildfire and other natural hazards to county residents and property and established updated goals and mitigation projects to reduce the impacts of natural disaster on people, property and critical infrastructure.

The LHMP identifies a variety of pre-fire mitigation actions to prevent or mitigate the potential for wildfire through creation and maintenance of shaded fuel breaks that slow speed and intensity of fires, public education programs to inform residents of actions to undertake or avoid, strategic planning to limit the Wildland Urban Interface, and vegetation management activity to reduce the amount of dry vegetation that serves as fuel to a wildfire (Placer County 2016).

## 16.4 IMPACTS

### 16.4.1 ANALYSIS METHODOLOGY

This analysis of impacts of the proposed project related to wildfire hazards is based on a review of CAL FIRE's Fire Hazard Severity Zone map for Placer County (CAL FIRE 2007) and review of the *Nevada-Yuba-Placer Unit Strategic Fire Plan* (CAL FIRE 2018a) and *Placer County Community Wildfire Protection Plan* (Anchor Point 2012). Additional background information on current services, staffing, and equipment was obtained through consultation with the Placer County Fire Department and CAL FIRE.

## 16.4.2 THRESHOLDS OF SIGNIFICANCE

### CEQA THRESHOLDS

Based on Appendix G of the State CEQA Guidelines and the County's Initial Study Checklist, the project would have a significant wildfire impact if it would be in or near state responsibility areas or lands classified as very high fire hazard severity zones and would:

- substantially impair an adopted emergency response plan or emergency evacuation plan;
- due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment; or
- expose people or structures to significant risks, including downslope or downstream flooding or landslides, because of runoff, post-fire slope instability, or drainage changes.

### ISSUES NOT ANALYZED FURTHER

- **Emergency Response/Emergency Evacuation Plans:** Project-related construction activities and expansion of the HFRP trail network system would not substantially impair an adopted emergency response plan or emergency evacuation plan, because emergency ingress and egress routes would remain open and unblocked during both construction and operation. Emergency access to the HFRP is in place and includes three helipads, three bridge crossings over Raccoon and Deadman Creeks, and an all-weather road. According to CAL FIRE, evacuation plans are incident-specific, so evacuation routes are determined based on the nature of a particular incident (ignition site, prevailing winds, fire movement, etc.) and are not pre-determined routes. The project will provide a mapped system of emergency access routes that will identify and maintain all available ingress/egress routes throughout the existing HFRP and expansion area. A copy of the emergency access map for the existing HFRP is included as Exhibit 16-3. Similar maps would be completed in consultation with Placer County Fire Department/CAL FIRE prior to the opening of each phase to the public for the areas affected by that phase.

  Mitigation measure S13-1 calls for provision of a Light Duty Response Vehicle (LRV) for the Placer County Fire Department/CAL FIRE in order to assist with impacts to emergency response efforts. The LRV would provide enhanced access for fire and emergency medical response to the existing HFRP and Trail Expansion areas. The LRV would also be available for use throughout the North Auburn/Ophir portions of the Placer County Fire Department/CAL FIRE jurisdiction, thus enhancing emergency response to more remote areas throughout the community. (See Mitigation Measure S13-1 in Chapter 13.0) As discussed further in Chapter 3.0, "Project Description," and Impact 8-6 in Chapter 8.0, "Transportation and Circulation," proposed emergency access/maintenance roads would provide better emergency access to all portions of the project area than occurs now, including those across Raccoon Creek. Additional information on emergency response is provided in Chapter 13.0.

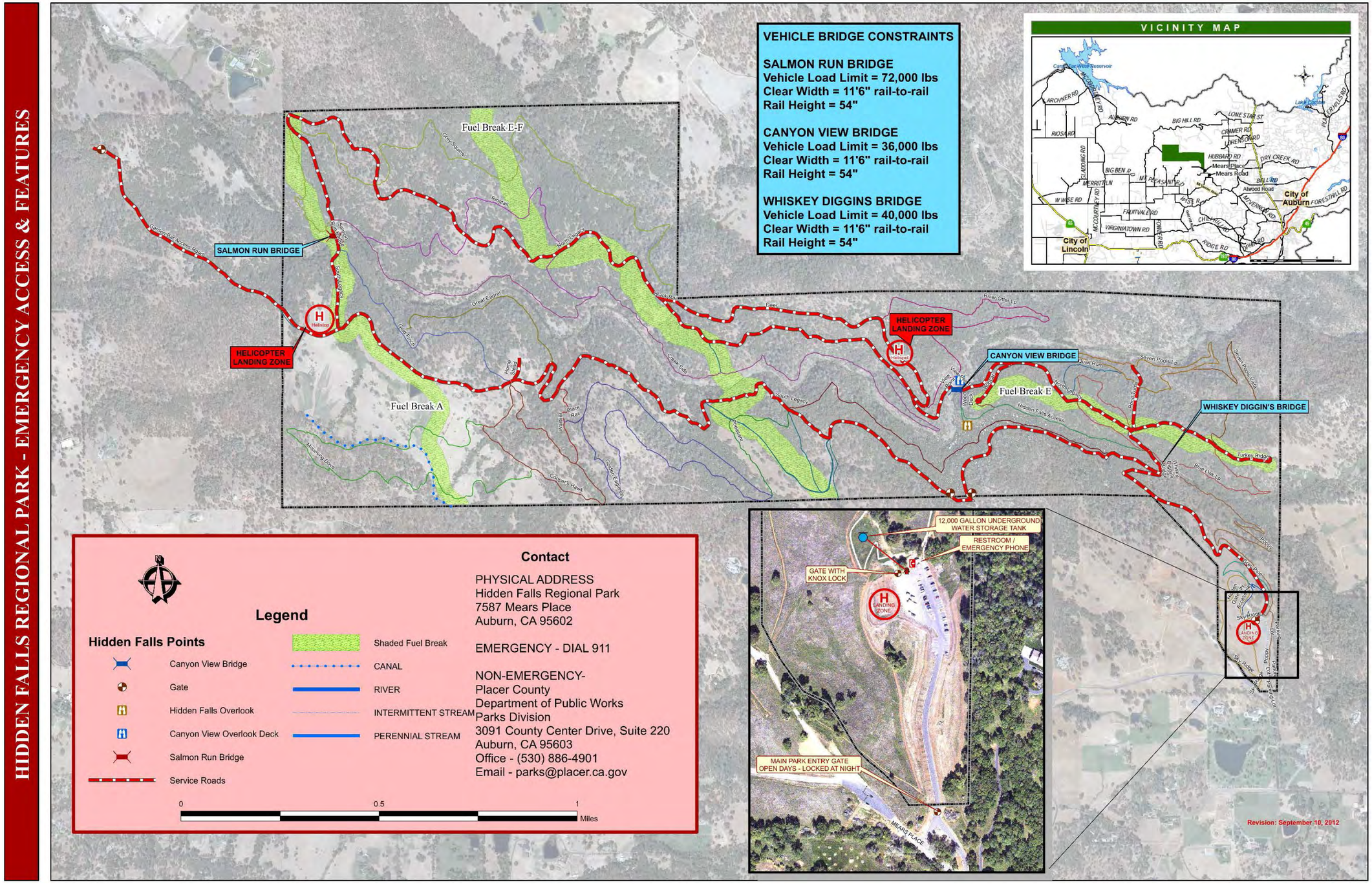



**Exhibit 16-3. Existing HFRP Emergency Access Map**

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- **Downstream Runoff, Post-Fire Slope Instability, or Drainage Changes:** Construction and operation of the HFRP Trails Expansion project would not create conditions that cause runoff, post-fire slope instability, or drainage changes that would expose people or structures to significant risks. The County would implement construction-related and post-development best management practices in the expansion area and comply with regulatory requirements that manage stormwater runoff and erosion (see Mitigation Measure S5-1 in Section 5.0, "Soils, Geology, and Seismicity," and Mitigation Measure 11-1 in Section 11.0, "Hydrology and Water Quality"). Standard trail design would follow the natural drainage patterns and contours as well as topography, soils, waterways, and natural vegetation. Construction on steep slopes would be avoided during final design of the alignment except at places such as the bridge overcrossings of Raccoon Creek. Further, there are no areas of shallow slope instability within the proposed expansion area. Section 5.0, "Soils, Geology, and Seismicity," and Section 11.0, "Hydrology and Water Quality," provide a detailed discussion of stormwater runoff, slope stability, and drainage changes.

## 16.4.3 IMPACT ANALYSIS

| | |
|---|---|
| IMPACT 16-1 | Wildfire—Potential for increased risk to human health through exposure to uncontrolled wildfire or from construction and maintenance of infrastructure that could spark a wildfire. *The potential exists for the project to expose people to an uncontrolled wildfire and to exacerbate risk of wildfire during construction, maintenance, and public use of the trail system. The County would construct beneficial improvements that would provide better emergency access than currently exists and would increase the ability of emergency responders to fight wildfire. The project promotes fire safety through construction of parking areas sufficiently sized to accommodate a helicopter landing zone and a 12,000-gallon water tank with hydrant for use in fire suppression at each trailhead entry. In addition, the County would comply with all laws, plans, policies, and regulations related to fire safety and wildfire suppression and would implement management actions and fire response facilities that would reduce the risk of wildfire. The County must also comply with mitigation measures intended to lower the risks from fires started during construction and maintenance activities, including purchase of a Light Rescue Vehicle for the Placer County Fire Department/CAL FIRE's use. The vehicle would aid with potential wildfires not only within the existing HFRP and trails expansion areas, but also within the North Auburn/Ophir portions of the jurisdiction of the Placer County Fire Department/CAL FIRE. Implementation of these project-specific components along with the implementation of the mitigation measures would result in a less than significant impact from wildfires and other associated risks.* |
| Significance | *Potentially Significant (New impact not previously considered in the prior analysis in the 2010 HFRP Certified EIR)* |
| Mitigation Proposed | *Mitigation Measure S16-1a – Curtail certain construction and maintenance activities during high-risk wildfire periods*<br><br>*Mitigation Measure S16-1b – Provide on-site source of water during certain construction and maintenance activities*<br><br>*Mitigation Measure S13-1 - County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE* |
| Residual Significance | *Less than Significant* |

## EXISTING HFRP

HFRP is within a State Responsibility Area (SRA) where CAL FIRE's Nevada-Yuba-Placer Unit is primarily responsible for responding to wildland fires. CAL FIRE rated the overall fire danger for the park property as a Moderate to High Fire Hazard Severity Zone (CAL FIRE 2007). Depending on the equipment required for park maintenance, fire risks could result from vehicle mufflers, gasoline-powered tools, and other equipment could produce a spark, fire, or flame. Therefore, equipment use during high fire declaration may be restricted until the threat has lessened.

The Conditional Use Permit (CUP) approved in 2010 includes the Spears Ranch portion of HFRP. The CUP allows campfires in association with overnight educational or group camping at the ranch house site on the western end of the park. While neither camping nor campfires have occurred at HFRP, they would be restricted to designated fire pits in a developed campground area and allowed under restricted conditions and in consultation with CAL FIRE on local conditions. If a group camping area is developed, campfire restrictions would be consistent with other Placer County Campgrounds that restrict open fires during high fire risk portions of the year. Smoking is prohibited in HFRP.

HFRP facilities include a hydrant system attached to a 12,000-gallon emergency water storage system, three helicopter landing zones, and three emergency access bridges over Raccoon Creek and Deadman Creek. The existing HFRP has 120 acres of Shaded Fuel Breaks (SFB), as noted in Exhibit 16-3. The 120 acres of SFB and other key areas of HFRP are mowed or grazed annually by goats and sheep to keep the lower vegetation maintained. In addition, the County implements recommendations included in the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* and complies with all laws, plans, policies, and regulations related to fire safety and wildfire suppression identified in Section 16.3, "Regulatory Setting."

Since the opening of HFRP in 2006, there have been no known wildland fires originated by HFRP users. The County complies with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression. Placer County employs staff and rangers to patrol HFRP on a daily basis and provide observations and assistance to first responders through radio contact. Implementation of various measures included in the project would improve CAL FIRE and the Placer County Fire Department's ability to respond more quickly to fires and would reduce the severity and size of potential fires. Therefore, the impact relevant to the existing HFRP area was considered **less than significant**.

## 2019 HFRP TRAILS EXPANSION PROJECT IMPACT ANALYSIS

The proposed expansion is within an SRA where CAL FIRE's Nevada-Yuba-Placer Unit is primarily responsible for responding to wildland fires. CAL FIRE identifies the proposed expansion area as being in both a Moderate Fire Hazard Severity Zone and a High Fire Hazard Severity Zone. The majority of the new trail system would be located in the Harvego Preserve, which is bordered by areas rated as Moderate, High, and Very High Fire Hazard Severity Zones (CAL FIRE 2007).

### Construction Activities

There is a potential for wildfire to occur during construction of new trails, bridges, overlooks, amenities, roads, and parking lots within the proposed expansion area. Construction activity associated with the proposed improvements ranges from hand held tools used to trim bushes and manipulate soil to heavy machinery required

to grade land for creation of roadway/trail beds, parking lots, and cranes used to place bridge components (see Table 3-5 in Chapter 3, “Project Description”).

Construction activities could exacerbate the potential risk of wildfire by adding to ignition sources within the area if not properly controlled. Ignition sources include hot exhaust from a vehicle parked on dry grass or welding during high winds sending sparks that travel through the air and land igniting dry grass. Wildfire ignition from construction activity could increase the risk of exposure to pollutants and is considered a **potentially significant impact**. However, construction activities must comply with existing regulations discussed above and summarized below that restrict periods of activity to times that are not a high fire risk The implementation of mitigation measures S16-1a “Curtail certain construction and maintenance activities during high risk wildfire periods” and S16-1b “Provide on-site source of water during certain construction and maintenance activities” will reduce the risks **to less than significant**.

### Maintenance Activities

The proposed trail expansion system and recreational facilities would be designed to minimize on-going maintenance requirements; however, some regular maintenance of the trails and ancillary facilities would be required. Initial removal of excess fuels would be accomplished by some combination of mechanical equipment and hand tools. Ongoing maintenance to manage fuel loads and fire breaks/defensible space as well as other trail maintenance will require equipment that could exacerbate the risk of igniting a fire. Many of these activities are intended to reduce fire risks by managing fuel loads, creating fire breaks/defensible space or providing enhanced emergency vehicle access to increase the potential for success on the initial attack by CAL FIRE personnel aligned with the Nevada-Yuba-Placer Unit Strategic Fire Plan. Depending on the equipment required for trail maintenance, equipment-related fire risks could persist, particularly during high-risk times. Motorized vehicles are to be prohibited on the trails on the Property, with the exception of the use by the landowner, County, contracted ranger services, PLT, and/or the trail easement holder, as needed for trail maintenance purposes, or access by emergency personnel for public health and safety, or as allowed under the Americans with Disabilities Act.

### Public Access

With increased public access, there is an increased potential for wildfire that is caused by human activities. Since the opening of HFRP in 2006, there have been no known wildland fires originated by HFRP users. As with the existing park, smoking would be prohibited within the Trail Expansion areas. Within the Trail Expansion areas, no campfires, stoves, or barbeques would be allowed. An educational campaign for park users would be implemented through the County’s website and via on-site information posted at all of the entrance areas. Public vehicles with combustion engines are prohibited within the trail expansion areas except for the parking areas, or as allowed under the Americans with Disabilities Act.

Compliance with all state laws, plans, policies, and regulations regarding wildfire prevention and suppression, as well as the County’s incorporation of project components that would improve CAL FIRE’s ability to respond more quickly to wildfires would reduce the severity and size of potential wildfires. Project components that offset potential risk of wildfire include improved access to remote areas of the County, construction of helicopter landing zones, construction of multiple 12,000-gallon water tanks and hydrants, establishment and maintenance of defensible space, construction of bridges to improve access, and the daily presence of staff which provides improved situational awareness by reporting observations of smoke and providing assistance to first responders.

In addition to project elements, Mitigation Measure S13-1 requires that the County purchase one Light Rescue Vehicle (LRV) for use by the Placer County Fire Department/CAL FIRE. An LRV is comprised of a specialized vehicle body on a full-sized pickup truck chassis, which can reach more remote areas of rural property than full-sized fire engines can reach. The LRV would be equipped with apparatus for extinguishing wildfires in their early stages (including a water tank capacity of up to 500 gallons which can also carry fire retardant), and equipment for rescue and medical aid. Once put into service, the LRV would be available for emergency response not only for calls within HFRP and the trail expansion areas, but also for any call within the regional areas primarily served by the Placer County Fire Department/CAL FIRE, including greater North Auburn/Ophir, allowing faster and more versatile response to emergencies to areas around the project. Together, these elements will reduce wildfire risks and enhance the ability to respond to any potential wildfire event. For these reasons and the fact that smoking, fires, and public motorized vehicles will be prohibited in the expansion areas, the potential to exacerbate wildfire risks or expose people to significant other risks associated with public use would be reduced to **less than significant**.

### Project Benefits

As with the existing HFRP, fire prevention activities would be conducted consistent with the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* (Placer 2007) for the expansion project trail network and park facilities. Vegetation management practices would be incorporated into the HFRP trails expansion project through thinning vegetation on regular basis around access roads, parking lots, along ridgelines, and around the perimeter of the trailheads. Pre-fire planning will be conducted in consultation with a registered professional forester as well as the PLT (for property it owns) and will be consistent with the CAL FIRE Nevada-Yuba-Placer Strategic Fire Plan.

The proposed project includes the construction of two new helicopter landing zones and installation of a 12,000-gallon water tank at each of the new park entrances. This would increase the potential for success during an initial attack on a wildfire. Consistent with the maintenance management plan for the existing HFRP, the water tanks would be inspected on a regular basis to ensure they are full and the distribution system to the hydrant is functional. Defensible spaces would be incorporated into the expansion area through thinning vegetation around parking lots and interior roads. Trails and bridges designed to accommodate emergency vehicles would be a minimum of 8–12 feet wide and would provide better emergency access (for fire suppression or emergency response) than exists today. Additionally, current ranger service would be expanded into new portions of the expansion area as they are opened to the public to provide public assistance and to have a presence at the park to monitor conditions.

The County would comply with all laws, plans, policies, and regulations related to fire safety and wildfire suppression identified in Section 16.3 above including the following requirements identified in the California Public Resources Code:

- PRC Section 4427, which identifies appropriate fire suppression equipment and stipulates removal of flammable materials to a distance of 10 feet from any equipment that could produce a spark, fire, or flame on days when burning permits are required;
- PRC Section 4428, which identifies additional firefighting equipment requirements during the period of highest fire danger (April 1–December 1); and

- PRC Section 4431, which prohibits the use of portable tools powered by gasoline-fueled internal combustion engines within 25 feet of flammable materials when burning permits are required.

In addition to the items listed above, the following components are included in the project description in order to address CAL FIRE/Placer County Fire Department requirements and needs (see Tables 3-2, 3-3, and 3-4 in Chapter 3 for an overview of how expansion project phasing thresholds relate to the implementation of these components):

1. Emergency access to interior portions of the HFRP Trails Expansion area will be provided.
2. A 12-foot drivable fire access road reaching from each parking area into the Trails Expansion area as far as is reasonably possible (given topographic constraints and requirements of applicable conservation easements) will be provided.
3. All gates will have both Placer County Fire Department and CAL FIRE padlocks (state locks provided by CAL FIRE) and Knox padlocks (purchased by the County).
4. Parking areas will maintain clear fire access lanes of 20 feet, will meet fire truck turning radii, and will be able to support 75,000 pounds.
5. Vertical clearances along trails and fire access lanes shall provide a minimum of 15 feet of clearance.
6. Trails shall provide directional signage to guide HFRP Trails Expansion area users and emergency personnel to points of interest and escape routes.
7. Defensible space standards shall be met as they relate to any structures or neighbors' structures.
8. CAL FIRE/Placer County Fire Department will be given room for a small information kiosk at each of the parking areas for use during peak fire season.

## 16.5 MITIGATION MEASURES

### Mitigation Measure S16-1a - Curtail certain construction and maintenance activities during high risk wildfire periods

Construction and maintenance activities utilizing motorized equipment shall be curtailed during red-flag warning days and other high-risk periods characterized by low humidity and unusually windy conditions as determined by the Fire Department.

### Mitigation Measure S16-1b - Provide on-site source of water during certain construction and maintenance activities

Construction and maintenance activities requiring motorized equipment will maintain a source of water on-site to address a potential ignition event caused by construction and maintenance activities.

Mitigation Measure S13-1 – County shall purchase one Light Rescue Vehicle for use by the Placer County Fire Department/CAL FIRE

The County shall fund the purchase of one light rescue vehicle (LRV) for use by Placer County Fire/CALFIRE. The LRV shall be purchased at the completion of the first phase of the Twilight Ride access and prior to opening of the parking area at Twilight Ride to the general public.

# 17.0 ALTERNATIVES

## 17.1 PURPOSE

Section 15126.6(a) of the State CEQA Guidelines requires that an EIR describe a range of reasonable alternatives to a project or its location that would feasibly attain most of the project's basic objectives but would avoid or substantially lessen any of the significant effects, and that the EIR evaluate the comparative merits of the alternatives. An EIR need not describe or evaluate the environmental effects of alternatives at the same level of detail as the effects of the proposed project; however, the document must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project.

CEQA requires that a no project alternative be evaluated (State CEQA Guidelines, Section 15126.6[e]). In addition, the EIR must identify an environmentally superior alternative among the alternatives considered, defined as the alternative that would result in the least adverse environmental impacts on a project site and affected environment. If the no project alternative is found to be environmentally superior, the EIR must also identify an environmentally superior alternative among the other alternatives.

The State CEQA Guidelines recommend that an EIR briefly describe the rationale for selecting the alternatives to be discussed, identify any alternatives that the lead agency considered but rejected as infeasible, and briefly explain the reasons for the lead agency's determination (State CEQA Guidelines, Section 15126.6[c]).

## 17.2 FACTORS CONSIDERED IN SELECTION OF ALTERNATIVES

Consistent with Section 15126.6(c) of the State CEQA Guidelines, Placer County considered the following factors in developing the range of reasonable alternatives to the proposed project:

- The extent to which the alternative would accomplish the project's objectives
- The feasibility of the alternative
- Avoidance or substantial reduction of significant effects

Alternatives that would have the same or greater impacts than the proposed project, or that would not meet most of the project objectives, were rejected from further consideration (State CEQA Guidelines, Section 15126.6[a]). However, the project objectives may not be defined so narrowly that the range of alternatives is unduly constrained.

### 17.2.1 ABILITY OF THE ALTERNATIVE TO ATTAIN MOST PROJECT OBJECTIVES

The following project objectives were considered when developing alternatives evaluated in this SEIR. The following objectives were identified by the County for the HFRP Trail Expansion Project:

- Support County goals for trails as outlined in the 2013 General Plan Update Recreational Trails Element Goal 5.C for developing a system of interconnected hiking, riding, and bicycling trails and paths suitable for active recreation and transportation and circulation.

- Implement the recreational resource objectives of the Placer Legacy Open Space and Agricultural Conservation Program (available at https://www.placer.ca.gov/3420/Placer-Legacy), beginning on page 3-17

that aim to "…enhance recreational opportunities in the County by improving public trail access, including the construction of staging areas and parking lots, as well as the purchase of public access easements on private land to provide connections to public land and city trail connections" and "provide regional recreational facilities in the foothill region, supplementing the recreation opportunities provided on public lands to the east and municipal park facilities in urbanized areas. South Placer residents would be served by one or more large regional parks (300 acres or greater) in a rural setting with a variety of passive recreation opportunities. Such a park may be connected with larger area of protected land, providing additional wildlife habitat value."

- Provide expanded opportunities for public passive recreation and educational access without overburdening natural resources, local roadways or adjacent communities.
- Expand the existing multi-use, natural-surface trail system to provide recreational opportunities for the residents of Placer County and the region, while maintaining safety for park users, visitors, and nearby residents.
- Create new areas for public parking that function smoothly from the outset.
- Create connectivity between the existing trails in HFRP and the expanded trail network.
- Expand on opportunities for natural, cultural, agricultural and historic resource education, fostering stewardship and environmental awareness.

### 17.2.2 FEASIBILITY OF THE ALTERNATIVES

An EIR need not consider every conceivable alternative to a project. Rather, a range of potentially feasible alternatives, governed by the "rule of reason," must be considered. This is intended to foster informed decision making and public participation (State CEQA Guidelines, Section 15126.6[f]). CEQA generally defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account environmental, social, technological, and legal factors." Alternatives were evaluated according to the "rule of reason" and general feasibility criteria suggested by State CEQA Guidelines Section 15126.6 as follows:

> The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

The inclusion of an alternative in an EIR does not necessarily mean that the alternative is feasible; rather, it indicates that the lead agency's staff has determined that the alternative is potentially feasible. When developing alternatives for consideration, feasibility is also a key component of the decision. The determination of feasibility was based on the following criteria (State CEQA Guidelines, Section 15126.6[f][1]):

- suitability of the site or alternative site;
- the alternative's economic viability;
- availability of infrastructure;
- consistency of the alternative with the *Placer County General Plan*, zoning, and other plans and regulatory limitations; and
- the effect of applicable jurisdictional boundaries.

### 17.2.3 Avoidance or Substantial Reduction of Significant Effects

The evaluation of alternatives must also consider the potential for the alternative to avoid or substantially lessen any of the significant effects of the project, as identified in this SEIR. The potential significant environmental effects of the proposed project include:

- Significant and unavoidable impact to the visual character of Garden Bar Road (Impact 7-3)
- Significant and unavoidable impact to transportation due to an increase in vehicle miles traveled (Impact 8-3)
- Significant and unavoidable impact to cumulative transportation due to an increase in vehicle miles traveled (Impact 18-1)

## 17.3 ALTERNATIVES REMOVED FROM CONSIDERATION

### 17.3.1 Off Site Alternative – Reasons for Dismissal

CEQA Section 15126.6(f)(2) requires the lead agency to consider alternative locations to a project if using an off-site location would avoid or lessen any of the significant effects of the project. Only locations that would avoid or substantially lessen any of the project's significant effects need be considered for inclusion in the SEIR.

Suitable locations for a project that provide passive recreational opportunities and encourage land conservation and enhancement of native habitat are rural by definition, characterized by open space containing natural habitat including oak woodlands that supports wildlife. It is likely that if the project were to be constructed at another rural area of Placer County, impacts on visual resources and traffic on rural roads that do not meet current design standards would result in a similar level of impact. Finally, inclusion of the offsite alternative for detailed evaluation would require speculation on the part of the lead agency because the effects cannot be reasonably ascertained and the ability of the County to implement such an action is remote.

In addition, the County owns or has easements in place that allow the construction and operation of the trail expansion and related improvements. Some of the land is owned and actively managed by Placer Land Trust. Land Management Plans have been prepared for each preserve that establish measures to preserve, restore, and maintain natural habitat in perpetuity. The management plans restrict use of the land to specific activities considered compatible with the purpose and contains an adaptive management plan for land managers to use as manual for implementation. The land management plans permit use of the preserves for outdoor recreational activity. There is no guarantee land elsewhere in the County is available for acquisition that is protected and managed for preservation of natural resources and suitable for passive public recreation.

## 17.4 ALTERNATIVES SELECTED FOR ANALYSIS

The County has selected 2 alternatives to the proposed project plus the no project alternative for comparison. An SEIR need not describe or evaluate the environmental effects of alternatives at the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project (State CEQA Guidelines, Section 15126.2[d]). Section 15126.6(e) of the State CEQA Guidelines requires that, among other alternatives, a "no project" alternative be evaluated in comparison to the proposed project. It states that the purpose of the "no project" alternative is to "allow decision-makers to compare the impacts of approving the proposed project with the impact of not approving the proposed project." It also states that the "no project" analysis shall "discuss the existing conditions…, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved…" Accordingly, this section provides an analysis of the "no project" alternative.

The environmentally superior alternative is also identified, as required by the State CEQA Guidelines. Section 15126(e)(2) states that "[i]f the environmentally superior alternative is the 'no project' alternative, the SEIR shall also identify an environmentally superior alternative among the other alternatives."

### NO PROJECT ALTERNATIVE (ALTERNATIVE 1)

The No Project Alternative assumes that the proposed natural-surface trails and related recreational amenities would not be constructed and that the approximately 2,700 acres of land in the Trails Expansion boundary owned or managed by the Placer Land Trust (PLT) and/or the County would not be open to the public other than for the docent-led tours as currently conducted by the PLT. The surrounding area would continue to be grazed and access would be limited to PLT maintenance staff, invited guests, and emergency vehicles.

Because trail expansion and related parking facilities would not be constructed under this alternative, and general public access would not be allowed, the impacts associated with the proposed project on land use and agriculture, biological resources, cultural resources, transportation and circulation, air quality, noise, soils, geology, and seismicity, hydrology and water quality, public services and utilities, visual resources, hazardous materials and hazards, and wildfire would not occur. Because the proposed project would have little to no impact on population, employment, and housing; and mineral resources, impacts on these resources under the No Project Alternative would be similar to those under the proposed project.

#### Ability of No Project (Alternative 1) to Achieve Project Objectives

Alternative 1 would not meet any of the project objectives and does not offer beneficial effects on recreation compared to the proposed project. The no project alternative would not meet the goals of the Placer County General Plan or Placer Legacy Program, nor would it meet the intended use of the PLT and County-held properties and easements, namely, to utilize the properties for public recreational purposes including hiking, bicycling, and equestrian uses as well as for conservation of the natural resources.

### REDUCED TRAILHEAD AMENITIES (ALTERNATIVE 2)

Alternative 2 would reduce the amount of parking and amenities proposed at the Garden Bar, Twilight Ride and Harvego Preserve parking areas. Alternative 2 assumes 30 miles of proposed natural-surface trails, 2 bridge crossings over Raccoon Creek, and stream crossings would be constructed over time as described under the

proposed project. Alternative 2 would also provide 25 additional vehicle parking spaces at the existing Mears Place park entry, 30 automobile parking spaces at the Garden Bar entrance (along with the improvements associated with Phase 1A, 1B, and 1C of the new Garden Bar parking area), 18 automobile parking spaces at the Harvego Preserve parking area (in addition to other Phase 1 and 2 improvements), and 54 automobile and 20 equestrian parking spaces, along with other corresponding improvements associated with Phase 1 of the Twilight Ride parking area. In total, Alternative 2 would reduce the total number of new automobile parking spaces to 127 and the equestrian parking spaces to 20, versus 297 automobile and 68 equestrian spaces proposed at full buildout. This Alternative would potentially reduce the significant and unavoidable impacts associated with VMT but not to a less than significant level. The significant unavoidable impact to visual resources created by the Garden Bar Road improvements would remain. Alternative 2 would not implement full buildout of the parking area, trailhead amenities and sanitation improvements planned for the entrances at Garden Bar Road, Harvego Preserve, and Twilight Ride. Instead, it would include the construction of only certain phases of each parking area, as described below:

- Garden Bar Road Park Entry – Alternative 2 would implement Phase 1A, Phase 1B, and Phase 1C improvements that provide a parking lot off a new access road north of the existing access road on Garden Bar Road. The newly constructed entrance road and parking area would provide adequate turning radius for emergency vehicles. Paved parking sized to accommodate 25 vehicles (plus 5 ADA stalls near the westerly major "Salmon Run" Bridge within the existing HFRP boundary) would be constructed and visitors would use an existing easement to reach the trail system within the existing HFRP boundary. Additional improvements would include a 12,000-gallon water tank with hydrant and portable toilets in Phase 1A, pull-outs along Garden Bar Road in Phase 1B, and installation of permanent restrooms and a public well in Phase 1C. It would not include full buildout of the parking area as originally approved with Phases 2 and 3 of the original EIR in 2010.

- Harvego Preserve Entry – Alternative 2 would implement Phase 1 and Phase 2 improvements that provide parking to accommodate 17 automobiles plus 1 ADA compliant space at the Harvego Preserve entry. Phase 1 improvements would include the paving of the ADA parking space and the provision for portable toilets. Phase 2 improvements would include pull-outs on Curtola Ranch Road and the hard surfacing of the road and parking area, but under the proposed phasing, would not include widening of Curtola Ranch Road (an easement amendment with the land owner would need to occur to allow pull-outs instead of widening to 20 feet with this phase). Phase 2 improvements would also include an entry gate and/or attendant booth, exclusionary fencing/bollards and gates along the easement as necessary, and other CAL FIRE improvements. Alternative 2 would not widen, nor would it introduce supporting recreational amenities or infrastructure (12,000-gallon water tank, permanent restroom, drinking fountain, helicopter landing zone and equestrian amenities). Access to the park from this location would be restricted to a maximum of 18 vehicles.

- Twilight Ride Entry – Alternative 2 would limit construction to that described within Phase 1: a hard-surfaced access road including a turnaround sufficient to accommodate a fire truck, entrance gate (either automated or with attendant and booth), and paved parking capable of accommodating 50 standard parking spaces, plus 4 ADA compliant parking spaces, and 20 gravel parking spaces for horse trailers. A restroom building supported by a groundwater well and septic system (or vault system) would be installed along with a water tank and helicopter landing zone to support emergency access. The new access road would require culverts/bridges for stream crossings and construction of some retaining walls to support the roadbed/parking areas. The purchase of an Emergency Medical Services light rescue vehicle (LRV) would also occur during

Phase 1, as would the construction of a new trail connection to the Taylor Ranch and provision of an informational kiosk. Because this alternative would not result in full buildout, the Bell Road left-hand turn lane construction would not be required.

### Land Use and Agricultural Resources

Similar to the proposed project, Alternative 2 would be consistent with the *Placer County General Plan* (General Plan), the Placer County Zoning Ordinance, and the Placer Legacy goals. Under either development scenario, the division of an established community would not occur, nor would impacts to timber resources or operations take place. Grazing would be allowed to continue on the property under both the proposed project and Alternative 2, so impacts on agricultural uses are similar. Like the proposed project, Alternative 2 would not interfere with surrounding land uses, and would be compatible with the existing land management plan policies for restricted use. Because Alternative 2 would not conflict with any land use plans in the project area and grazing would be allowed to continue, the potential impacts of Alternative 2 on land use, planning, and agricultural resources would be similar to those of the proposed project.

### Soils, Geology, and Seismicity

Construction of recreational facilities under Alternative 2 would require some ground disturbance and clearing and grubbing of vegetation resulting in minor alterations to surface topography similar to the project. This alternative would include construction of restrooms and small maintenance buildings, and construction of bridges and overlooks that would be subject to ground shaking, liquefaction, and landslides. However, the project area is not located within an earthquake fault zone, no active faults are known to occur on site and no structures for human occupancy would be placed across any fault traces. The County would obtain authorization for construction and operation activities from the Central Valley Regional Water Quality Control Board (RWQCB) and implement erosion and sediment control measures obtain to reduce potential impacts on geology, soils, and seismicity under either development scenario. However, because less grading would occur under Alternative 2, potential impacts of Alternative 2 on soils, geology and seismicity would be less than those identified for the proposed project.

### Cultural and Tribal Cultural Resources

One prehistoric and two historic cultural resources (Rock Walls (HF-2016-1) and Water Conveyance Ditch and Stacked Rock Wall (HF-2017-1) are known to occur within the HFRP Trails Expansion area. Project related improvements such as the parking lot, access road and trailhead amenities would not disturb these resources. Further, neither of the historic cultural resources would be considered eligible for listing in the NRHP or CRHR. As with the proposed project, Alternative 2 would not result in an impact to any known prehistoric resource or eligible historic resources. As with the proposed project, Alternative 2 would have the potential to uncover previously unknown artifacts during ground disturbance. This SEIR includes mitigation measures to reduce impacts on known and yet-to-be-discovered cultural resources. With implementation of these mitigation measures, both the proposed project and Alternative 2 would avoid impacts on cultural resources. However, because of the reduction in area graded under Alternative 2, the potential for this alternative to uncover previously unknown artifacts is reduced, so potential impacts on cultural resources for Alternative 2 are less than those of the proposed project.

### Visual Resources

Similar to the project, Alternative 2 would introduce new physical elements into the landscape; however, Alternative 2 would not alter the visual character of land visible from Garden Bar Road since the widening of Garden Bar Road (18 feet with 2-foot shoulders) would not occur and the tree removal necessary for the road widening would not take place. The changes to visual conditions under this alternative would be less substantial than those under the proposed project, and the Significant and Unavoidable Impact relating to the visual impacts on Garden Bar Road would be eliminated. Construction of structures such as the ranger booth and restrooms would incorporate natural materials and colors to compliment the rural character of the site. Alternative 2 would not affect scenic vistas, rock outcroppings, or other prominent features on the site. Because this alternative would not include the widening of Garden Bar Road and the associated tree removal, and requires less grading, it has a smaller disturbance footprint; therefore, this alternative would significantly reduce the impacts on aesthetics when compared to the proposed project.

### Transportation and Circulation

Both the proposed project and Alternative 2 would create additional vehicle trips on local roads traveling to and from the expansion areas; however, Alternative 2 would reduce the amount of proposed parking by approximately 60%. A short-term increase in traffic on various County roadways, including Garden Bar Road, Bell Road, Curtola Ranch Road, Mears Drive, and Lone Star Road would occur as equipment and workers travel to and from active construction sites. Increased vehicle trips during construction of the project is temporary in duration and vehicle trips would travel along varying roadways depending on the site improvement under construction.

Alternative 2 would reduce the number of parking spaces to 127 spaces, plus 20 parking spaces sized to accommodate horse trailers. In comparison, the proposed project would provide 359 parking spaces, including 297 new automobile parking spaces and 68 spaces sized to accommodate horse trailers. Alternative 2 would apply the reservation system to the HFRP Trail Expansion area to control the daily trips traveling to and from the site on peak usage days. Alternative 2 would reduce the number of daily trips on local roads and reduce traffic at the intersection of SR-49 with Cramer Road. However, the impacts under both the existing-plus-project level and cumulative levels would remain significant and unavoidable since the County does not have an established threshold for VMT. While Alternative 2 would reduce some VMT, both Alternative 2 and the project itself would remain inconsistent with the MTP/SCS.

Safety related impacts of Alternative 2 would also be slightly less than those of the proposed project. Under either development scenario, visitor trips would increase the traffic on rural roads that are narrow in places. However, under Alternative 2, there would be 40 fewer parking spots at the Garden Bar 40 parking area, and no equestrian spaces would be provided, so traffic along Garden Bar Road would be lessened. Because of the overall reduction in VMT and the reduced number of visitors who would be allowed to enter through the Garden Bar entrance, Alternative 2 would have less impacts on transportation and circulation than does the proposed project.

### Air Quality

Construction of trails and recreational facilities under Alternative 2 would temporarily increase concentrations of reactive organic gases (ROG), oxides of nitrogen ($NO_X$), and respirable particulate matter with an aerodynamic diameter of 10 micrometers or less ($PM_{10}$) in the project area. Construction under this alternative would also have the potential to temporarily increase the amount of diesel exhaust and fuel vapors in the project area. In addition,

long-term operation (use and maintenance) of the Park as part of this alternative would cause an increase in ROG, $NO_X$, and $PM_{10}$. There is a slight possibility that ground-disturbing activities under this alternative could also expose areas containing asbestos. However, this alternative would include fewer construction-related emissions than the proposed project because Alternative 2 would not widen Garden Bar Road and the size of parking lots and trailhead amenities would be reduced. Similar to construction-related impacts, the operation of Alternative 2 would generate fewer vehicle trips than the proposed project, so area source emissions would be less. Overall, impacts to regional air quality under Alternative 2 would be less than those of the proposed project.

### Noise

Construction of trails and recreational facilities under Alternative 2 would temporarily increase noise levels in the project area. Construction activities under either development scenario are assumed to comply with the requirements of the Placer County Noise Ordinance. The nearest noise-sensitive receptors are located adjacent to the Twilight Ride trailhead entry. Alternative 2 would provide approximately 40% of the total parking spaces of the proposed project, so vehicle noise experienced along studied roadway segments would be less at buildout than the predicted levels for the proposed project. Similarly, Alternative 2 would reduce predicted noise exposure along Curtola Ranch Road because this road segment would not require widening given that removal of parking and amenities at the Harvego Preserve trailhead would reduce daily trips and associated levels of visitor attendance. Overall, Alternative 2 would result in lower construction and operational noise than the proposed project.

### Hydrology and Water Quality

Implementation of Alternative 2 would require the installation of one less groundwater well to support water demand and would not require construction of the septic system at the Harvego Preserve trailhead. Removal of these components would eliminate a potential hazard to groundwater through demand reduction and elimination of a potential source of contamination. The potential for construction activity to create erosion during vegetation removal and grading for improvements could also affect water quality in the project area; however, this alternative would reduce the disturbance footprint since fewer spaces are provided than what would be provided with the proposed project. Alternative 2 reduces the size of the parking footprint and removes amenities at the Harvego Preserve trailhead. The footprint of the parking lot and amenities at each trailhead (with the exception of Mears) are less than that of the proposed project. Alternative 2 would comply with policies pertaining to water quality in the General Plan and would implement best management practices (BMPs). A grading and drainage plan would be prepared and implemented under either development scenario. Although mitigation measures would reduce impacts to less than significant for either the proposed project or for Alternative 2, the reduction in the number of wells and septic systems, as well as the reduction in grading, would have less of a potential impact on hydrology and water quality than the proposed project.

### Biological Resources

Buildout of the proposed project would result in permanent disturbance to approximately 21 acres of land. Of this total, 7.7 acres would be permanently disturbed by the new trail network. As with the project, Alternative 2 would require construction of bridge crossings over Raccoon Creek and trail crossings over other unnamed drainages within the trail expansion areas. Under either development scenario, grading activity is needed to introduce the improvements needed to support the intended use, resulting in the removal of vegetation, including trees. Alternative 2 would have less potential than the proposed project to introduce invasive weeds because fewer

horses would be accommodated under this alternative; however, invasive weeds currently exist throughout area. Because this alternative would not include full buildout of the parking lot and trailhead amenities, potential impacts to biological resources would be less than what has been identified for the proposed project. Mitigation to reduce impacts on special-status species, oak woodlands, and waters of the United States would be applied under either development scenario. Because Alternative 2 requires less physical land disturbance, it would reduce the potential direct impacts to biological resources when compared to the proposed project.

### Public Services and Utilities

Implementation of Alternative 2 would reduce the demand for services in comparison to the proposed project, given that fewer visitors can be accommodated by the reduced parking capacity available under this alternative, and the reservation system would control the number of visitors to match available parking. Like the proposed project, Alternative 2 would provide emergency personnel with improved access to rural areas of the County, which can aid responses by emergency personnel. Demand for potable water and sanitation would be met through the construction of new groundwater wells and septic systems. Solid waste would require collection and disposal under either development scenario. However, because there would be fewer helicopter landing zones and fewer water tanks available for emergency services, Alternative 2 would not meet the objectives of the full buildout project. Although it would not provide the same level of emergency service improvements as the proposed project, Alternative 2 would result in fewer visitors to the park, and the potential demand for public services and utilities would be less than those of the proposed project.

### Hazardous Materials and Hazard

Like the project, Alternative 2 involves construction activity involving powered equipment that requires small amounts of hazardous material. An accidental-spill prevention and response plan would be developed to reduce potential impacts on human health from construction related lubricants, fuel, and solvents. Ground disturbance has the potential to expose construction workers to contaminants from prior activity on the site. The County would prepare a safety hazard plan and conduct soil sampling as necessary to reduce these impacts. Because of the smaller size of the parking lots, Alternative 2 would require less construction-related activity and would disturb less land, so the potential for exposure to contamination is slightly less than that of the proposed project.

### Greenhouse Gas Emissions and Energy

Construction of the project would generate approximately 3,791 MT $CO_2$e over the entire construction period. These emissions sources include heavy-duty construction equipment, haul trucks, and construction worker vehicles. Construction-related GHG emissions would not exceed the Placer County Air Pollution Control District (PCAPCD) threshold of 10,000 MT$CO_2$e per year. Construction activity under Alternative 2 would generate fewer GHG emissions than the proposed project because a smaller footprint for grading results in fewer pieces of construction equipment operating on site.

Sources of operational related emissions of the project include motor vehicles and trucks, energy usage, water usage, and waste generation. The proposed project would generate approximately 6,419 MT $CO_2$e per year, which would be well below the operational threshold of 10,000 MT $CO_2$e per year established by the PCAPCD. With the reduction in parking capacity by over a half with Alternative 2, the resulting decrease in vehicle trips and related GHG emissions would be greater under Alternative 2 than under the proposed project.

### Wildfire

Under either the proposed project or Alternative 2, land owned by Placer Land Trust (PLT) and outside the County's trail easement is actively managed by the PLT to reduce fuel load and minimize risk of wildfire, while land inside trail easements is to be managed by the County in a manner similar to the existing HFRP. While both the project and Alternative 2 would provide new roads and trails that improve emergency access, the proposed project would provide multiple parking lots of size sufficient to allow use by emergency responders as a base to coordinate firefighting activity. The proposed project also improves the ability to conduct aerial operations by constructing a helicopter landing zone at the Twilight Ride and Harvego Preserve entrances and by providing one Light Rescue Vehicle (LRV) for CAL FIRE operations during Phase 1 of the Twilight Ride parking lot construction. In contrast, Alternative 2 would provide only one additional helicopter landing zone and would not provide as many water tanks or wells as the proposed project.

Similar to the proposed project, Alternative 2 would construct small structures and attract visitors in areas of the County designated Moderate to High Fire Hazard Zone by the California Department of Forestry and Fire Protection (CAL FIRE 2019). Construction and operation of the expansion project under both the proposed project and Alterative 2 would create a potential for fire to be caused by construction equipment or by users of the trail expansion areas after construction. Prohibitions on smoking would be implemented in Alternative 2 in the same manner as the proposed project. Because there would be less construction activity and fewer people able to visit the areas under this Alterative 2, there would be fewer potential wildfire impacts than the proposed project, but this Alternative does not provide the same level of benefit with regard to helicopter landing zones and water tanks as does the proposed project.

## REDUCED TRAILHEAD AMENITIES GARDEN BAR ACCESS ONLY (ALTERNATIVE 3)

Alternative 3 would construct all the project improvements except at the Garden Bar Road entrance, where only Phase 1A, Phase 1B, and Phase 1C of the improvements would take place. Alternative 3 would reduce the parking count at this entrance by 40 spaces, as it would eliminate Phases 2 and 3. Under Alternative 3, improvements include 30 miles of new native-surface trail system, two bridges crossing Raccoon Creek, access roads, parking lots accommodating a combined total of 325 new spaces (277 automobile and 48 equestrian trailer spaces), and three new trailheads accessing the trail system (supported with amenities such as picnic benches and tables, restrooms, and potable water). All phases of the proposed Twilight Ride and Harvego Preserve trailheads as well as the additional 25 parking spaces at the Mears Place entrance would be allowed. Access would remain controlled by the reservation system 7 days a week at the Garden Bar Road entrance.

### Land Use and Agricultural Resources

Alternative 3 would be consistent with the *Placer County General Plan* (General Plan) the Placer County Zoning Ordinance and the Placer Legacy goals, as is the project. Similar to the project, Alternative 3 would not divide an established community, nor would it affect timber resources or operations. Grazing would be allowed to continue on the property. This alternative would not interfere with surrounding land uses. Because Alternative 3 would not conflict with any land use plans in the project area and grazing would be allowed to continue, potential impacts of Alternative 3 on land use, planning, and agricultural resources would be similar to those of the proposed project.

### Soils, Geology, Seismicity, and Mineral Resources

Alternative 3 would require ground disturbance and grubbing of vegetation resulting in minor alterations to surface topography similar to that of the project. Like the project, Alternative 3 includes structures such as restrooms in the parking areas, overlooks along the trail, and two bridges over Raccoon Creek all of which would be subject to ground shaking, liquefaction, and landslides under either scenario. However, the project disturbance footprint is slightly smaller and the number of visitors who can attend on a daily basis is restricted so that slightly fewer guests are subject to hazards associated with earth movement than compared to the project. Like the proposed project, Alternative 3 is not located within an earthquake fault zone, no active faults are known to occur on site and no structures for human occupancy would be placed across any fault traces. The County would obtain authorization for construction and operation activities from the Central Valley Regional Water Quality Control Board (RWQCB) to protect water quality and permits from resource agencies to construct the two bridges over Racoon Creek. Construction activity under either development scenario must implement erosion and sediment control measures obtain to reduce impacts on geology, soils, and seismicity under either development scenario. Because fewer parking spaces and therefore less grading occurs under Alternative 3, potential impacts of this alternative on soils, geology, and seismicity would be slightly less than those identified for the project.

### Cultural and Tribal Cultural Resources

One prehistoric and two historic cultural resources are located within the project area. Alternative 3 is designed in a manner similar to that of the project which avoids direct impact to known resources. Like the project, Alternative 3 is subject to mitigation measures that reduce impacts on known and yet-to-be-discovered cultural resources. However, due to the slightly smaller grading footprint of Alternative 3, the potential impacts of Alternative 3 on cultural resources would be slightly less than those of the proposed project.

### Visual Resources

Similar to the project, Alternative 3 would introduce new physical elements into the landscape but views of the planned trail system and recreational facilities from off-site locations would be limited by intervening topography and vegetation from most public vantage points. Under the proposed project, buildout of the full parking at the Garden Bar trailhead requires significant tree removal along Garden Bar Road. Under Alternative 3, Garden Bar Road would not be widened so the impacts to trees as a result of the widening would not occur, and this Significant and Unavoidable impact would be eliminated. Permanent ground disturbance under Alternative 3 would be less than that of the proposed project, because the Garden Bar parking area would be smaller in size. Consequently, less vegetation would be removed for grading required to prepare the site for the parking lot and trailhead amenities. Similar to the project, Alternative 3 would not affect scenic vistas, prominent rock outcroppings, or other notable feature on the site. Alternative 3 would avoid the loss of trees visible from Garden Bar Road and removes the significant unavoidable impact associated with the project. Therefore, impacts of Alternative 3 are significantly less than those of the project.

### Transportation and Circulation

Because the number of parking stalls would be reduced at Garden Bar Road, Alternative 3 would generate a smaller number of vehicle trips traveling on local roads to and from the HFRP Expansion area in the Garden Bar area. Under either development scenario construction activity would require trips to deliver supplies and equipment to construct the improvements. These trips are expected to travel on Garden Bar Road, Bell Road,

Curtola Ranch Road, Mears Road and Lone Star as workers head to and from the active construction site. There would be a slight decrease in the amount of construction traffic required for Alternative 3 since the footprint of the Garden Bar parking area would be smaller.

Operation would generate slightly fewer daily trips than does the project because the available parking count would be reduced. Permits issued under the reservation system will reflect available parking spaces under either development scenario, so it is reasonable to conclude that Alternative 3 would slightly reduce trips on local roads and have slightly less impact on the operating capacity of the roadway network than does the project. Alternative 3 would reduce the number of daily vehicle trips on local roadways as compared to the proposed project, although it is unknown how many trips (if any) at the Twilight Ride and Harvego Preserve entrances would be affected by the reduction in available parking spaces at Garden Bar. Both the proposed project and Alternative 3 would contribute to the significant and unavoidable impacts due to increases in VMT because although Alternative 3 would reduce some VMT, the reduction in VMT is unknown, the project itself would remain inconsistent with the MTP/SCS and the County would still not have an established VMT threshold.

Safety related impacts of Alternative 3 would also be slightly less than those of the proposed project. Under either development scenario, visitor trips would increase the traffic on rural roads that are narrow in places. However, under Alternative 3, there would be 40 less parking spots at the Garden Bar 40 parking area, and no equestrian spaces would be provided, so traffic along Garden Bar Road would be lessened. Because of the reduced number of visitors who would be allowed to enter through the Garden Bar entrance, Alternative 3 would have slightly less impacts on transportation and circulation than does the proposed project.

### Air Quality

Construction of trails and recreational facilities under Alternative 3 would temporarily increase concentrations of reactive organic gases (ROG), oxides of nitrogen ($NO_X$), and respirable particulate matter with an aerodynamic diameter of 10 micrometers or less ($PM_{10}$) in the project area. Construction under this alternative would also have the potential to temporarily increase the amount of diesel exhaust and fuel vapors in the project area. In addition, long-term operation (use and maintenance) of the Park and Trail Expansion areas as part of this alternative would cause an increase in ROG, $NO_X$, or $PM_{10}$. There is a slight possibility that ground-disturbing activities under this alternative would also expose areas containing asbestos. Alternative 3 would generate slightly less construction-related emissions associated with heavy equipment operation because Garden Bar Road would not be widened and because the parking area size would be smaller than the proposed project. Due to fewer available parking spaces, and a subsequent reduction in the number of visitors, fewer vehicle trips would occur when compared to the project so impacts to regional air quality would be slightly less than those of the project.

### Noise

Construction of trails and recreational facilities under Alternative 3 would temporarily increase noise levels in the project area. Construction activities associated with this alternative would comply with the requirements of the Placer County Noise Ordinance. The closest noise-sensitive receptors are located adjacent the Twilight Ride expansion project entry. Alternative 3 would widen Curtola Ranch Road to improve access to a new parking lot and recreational amenities at this trailhead. There would also be similar construction-related noise impacts at the Twilight Ride site, but less noise would be generated at the Garden Bar Road location. Long-term operation (use and maintenance) of the HFRP trail expansion area at the Garden Bar entrance would be less intensive under

Alternative 3 and would result in a reduction in predicted noise impacts when compared to the project. Therefore, Alternative 3 would have slightly less impact compared to the project on local noise.

### Hydrology and Water Quality

Implementation of Alternative 3 would require installation of new groundwater wells and septic systems at the proposed trailheads. Potential erosion from vegetation removal and grading activity could also affect water quality in the project area; however, this alternative would not disturb as much land area during earthmoving activities because the size of parking area at the Garden Bar entry would be reduced by 40 spaces. Like the project, this alternative would comply with policies pertaining to water quality in the General Plan and would implement BMPs to reduce erosion and sedimentation effects. A grading and drainage plan would be prepared and implemented under either development scenario and the County would obtain a Transient Non-community Water System Permit to reduce these impacts to a less-than-significant level. Alternative 3 would have slightly less potential impact on hydrology and water quality to that of the proposed project.

### Biological Resources

Land disturbance with the proposed project was estimated to be approximately 41.8 acres. Of this total, trails represent 7.7 acres, and the remainder of disturbance involves improvements at the trailheads. As with the project, Alternative 3 would require construction of two bridge crossings over Raccoon Creek and trail crossings over other unnamed drainages within the trail expansion areas. Under either development scenario, grading activity is needed although fewer trees would be removed by Alternative 3 because Garden Bar Road would not be widened. Under either development scenario, mitigation to reduce impacts on special-status species, oak woodlands, and waters of the United States would be required. But because Alternative 3 does not require the removal of oak trees along Garden Bar Road, and its area of grading is less than that of the proposed project, it would have less potential impact on biological resources than the proposed project.

### Public Services and Utilities

Alternative 3 would result in less demand on public services and utilities because fewer visitors can be accommodated at the Garden Bar Road entry and the permit requirements regulates the number of visitors who can use the site. Alternative 3 would improve access to rural areas of the County, as does the project, which can aid the response by emergency personnel. As with the proposed project, this alternative would provide for the collection and disposal of solid waste. Because Alternative 3 would result in slightly fewer visitors to the park, the demand for public services and utilities would be slightly less than those of the proposed project.

### Hazardous Materials and Hazards

Like the proposed project, Alternative 3 involves construction activity involving powered equipment that requires small amounts of hazardous material. An accidental-spill prevention and response plan would be developed under either development scenario in order to reduce potential impacts on human health from construction related lubricants, fuel, and solvents. The County would also coordinate with the Placer Mosquito and Vector Control District (Vector Control District), create a safety hazard plan, and conduct soil sampling as necessary to reduce these impacts. Because Alternative 3 requires less grading and pavement improvements than the proposed project, Alternative 3 would result in the potential for slightly fewer hazards and hazardous materials-related impacts than the proposed project.

### Greenhouse Gas Emissions and Energy

Construction of the proposed project would generate approximately 3,791 MT $CO_2e$ over the entire construction period. These emissions sources include heavy-duty construction equipment, haul trucks, and construction worker vehicles. To estimate amortized construction emissions, the total construction-related GHG emissions of 3,791 MT $CO_2e$ associated with the project are divided by 30 years (approximately 116 MT $CO_2$ per year). As such, the construction-related GHG emissions would be less than the adopted or proposed GHG emissions on an amortized basis would not exceed the Placer County Air Pollution Control District (PCAPCD) construction threshold of 10,000 $MTCO_2e$ per year. Construction activity under Alternative 3 would generate slightly fewer GHG emissions since a smaller footprint for grading results in fewer pieces of construction equipment operating on site.

Sources of operational related emissions of the project include motor vehicles and trucks, energy usage, water usage, and waste generation. As described above the PCAPCD adopted a GHG operational threshold of 10,000 MT $CO_2e$ per year. The proposed project operation would generate approximately 6,419 MT $CO_2e$ per year, which would be well below the operational threshold of 10,000 MT CO2e per year. With the reduction in parking capacity by 40 stalls associated with Alternative 2, it is reasonable to assume the resulting decrease in vehicle trips and related GHG emissions would slightly reduce the impact as compared to the proposed project.

### Wildfire

Similar to the project, Alternative 3 would construct small structures and attract visitors in areas of the County designated Moderate to High Fire Hazard Zone by the California Department of Forestry and Fire Protection (CAL FIRE 2019). Construction and operation of the expansion project under either development scenario could create a potential for fire to be caused by construction equipment or by users of the trail expansion areas after construction. Because there would be less construction activity and fewer people able to visit the area under Alterative 3, there would be fewer potential wildfire impacts than the proposed project.

## 17.4.1 Summary of Alternatives Analysis

A comparison of the proposed project, the No Project Alternative, the Reduced Trailhead Amenities Alternative 2, and the Reduced Trailhead Amenities Garden Bar Access Only Alternative 3 is presented in Table 17-1 below. This table shows the advantages and disadvantages of these alternatives relative to the proposed project.

### Environmentally Superior Alternative

The environmentally superior alternative would be the No Project Alternative; however, according to the State CEQA Guidelines, if the environmentally superior alternative is the No Project Alternative, an environmentally superior alternative must be selected from the other alternatives.

Based on the foregoing analysis, the environmentally superior alternative among the other alternatives is Alternative 2, Reduced Trailhead Amenities Alternative. Alternative 2 would alleviate the severity of significant project impacts to the visual character of Garden Bar Road. Alternative 2 requires less land disturbance because road widening at Garden Bar Road is not required. Keeping Garden Bar Road at its present width avoids tree removal and the Significant and Unavoidable impact to Visual Resources would be eliminated. In addition, although Alternative 2 would not eliminate the significant and unavoidable impacts to traffic, it would substantially reduce the vehicle trips on local roads. Less ground disturbance is required to implement this

alternative, and fewer air emissions would be generated during construction and operation. Lastly, selection of Alternative 2 would decrease activity at the three new proposed trailheads, so the demand for public services and utilities would be less than that of the project.

While Alternative 2 would reduce significant project impacts, it would not go as far toward meeting the project objectives as fewer visitors could be accommodated. Alternative 2 would also not provide the same level of benefit to the community offered by the project because it reduces the number of water tanks and helipads for use in fighting wildfires. Lastly, Alternative 2 would not provide any equestrian facilities at either the Garden Bar or Harvego Preserve entrances, and no permanent restroom would be provided at the Harvego Preserve. Objectives not as fully achieved with Alternative 2 as with the proposed project include:

- Implement the recreational resource objectives of the Placer Legacy Open Space and Agricultural Conservation Program (available at https://www.placer.ca.gov/3420/Placer-Legacy), beginning on page 3-17 that aim to "…enhance recreational opportunities in the County by improving public trail access, including the construction of staging areas and parking lots, as well as the purchase of public access easements on private land to provide connections to public land and city trail connections" and "provide regional recreational facilities in the foothill region, supplementing the recreation opportunities provided on public lands to the east and municipal park facilities in urbanized areas. South Placer residents would be served by one or more large regional parks (300 acres or greater) in a rural setting with a variety of passive recreation opportunities. Such a park may be connected with larger area of protected land, providing additional wildlife habitat value."

- Expand the existing multi-use, natural-surface trail system to provide recreational opportunities for the residents of Placer County and the region, while maintaining safety for park users, visitors, and nearby residents.

**Table 17-1. Comparison of Environmental Impacts for HFRP Trails Expansion Project Alternatives**

| Issue Area | No Project (Alternative 1) | Reduced Access (Alternative 2) | Reduced Access for Garden Bar Road Only (Alternative 3) |
|---|---|---|---|
| Land Use and Agricultural Resources | Less | Similar | Similar |
| Biological Resources | Less | Less | Less |
| Cultural Resources and Tribal Cultural Resources | Less | Less | Slightly Less |
| Visual Resources | Less | Significantly Less | Significantly Less |
| Transportation and Circulation | Less | Slightly Less | Slightly Less |
| Air Quality | Less | Less | Slightly Less |
| Noise | Less | Less | Slightly Less |
| Soils, Geology, Seismicity, and Mineral Resources | Less | Less | Slightly Less |
| Hydrology and Water Quality | Less | Less | Slightly Less |
| Public Services and Utilities | Less | Less | Slightly Less |
| Hazardous Materials and Hazards | Less | Slightly Less | Slightly Less |
| Greenhouse Gas Emissions and Energy | Less | Less | Slightly Less |
| Wildfire | Less | Less | Slightly Less |

# 18.0 OTHER CEQA SECTIONS

## 18.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

This Draft Subsequent EIR (SEIR) concludes that all impacts associated with the proposed Hidden Falls Regional Park Trails Expansion Project can be mitigated to less than significant levels except for three that are considered significant and unavoidable. Each is discussed below.

1. **"Long-Term Changes in Visual Resources Associated with the Improvements to Garden Bar Road."** Implementation of Mitigation Measures 7-1: Revegetate and Restore All Disturbed Areas to Minimize Visual Quality Impacts, and 12-8: Protect Oak Woodland Habitat would reduce this impact; however, this impact would remain significant and unavoidable because no other screening options along Garden Bar Road are available and revegetation of the disturbed areas would not reduce visual impacts in the short term.

2. **Conflict with CEQA Guidelines Section 15064.3 subdivision (b).** The proposed project results in an increase in Vehicle Miles Traveled (VMT). Since no threshold has been established by the County, and the proposed project is inconsistent with the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), the increase in VMT is considered significant. Due to the rural nature of the project, the only feasible mitigation measure to reduce VMT is the parking reservation system which is included as a project feature in the project description employed for weekends, holidays, and other peak visitation days. Although the parking reservation system limits VMT and encourages carpooling, the increase in VMT remains significant and unavoidable.

3. **Conflict with CEQA Guidelines Section 15064.3 subdivision (b) - Cumulative Plus Project Conditions.** The proposed project will continue to generate VMT under cumulative plus project conditions and since no threshold has been established by the County and the project is inconsistent with the MTP/SCS, the increase in VMT is a cumulatively considerable impact. Due to the rural nature of the project, the only feasible mitigation measure to reduce VMT is the parking reservation system which is included in the project description and employed for weekends, holidays, and other peak visitation days. Although the parking reservation system limits VMT and encourages carpooling, the increase in VMT remains significant and unavoidable.

## 18.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code Section 21100(b)(2)(B) provides that an EIR shall include a detailed statement setting forth "[i]n a separate section… [a]ny significant effect on the environment that would be irreversible if the project is implemented." State CEQA Guidelines Section 15126.2(c) provides the following guidance for an analysis of significant irreversible changes of a project:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) generally commit future generations to

similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Mechanical construction techniques would be used to construct the proposed trail system and recreational facilities such as parking areas, restrooms, overlooks and bridges across Raccoon Creek and other drainages. In addition, the proposed trails expansion project would commit future generations to similar uses to some extent. The project would provide access to a rural area that has been inaccessible to most recreational users and other members of the public. This could be considered a secondary effect of the project. However, all potential effects of the project for all applicable environmental issue areas are analyzed in this SEIR. Therefore, this analysis assumes that no additional effects related to project development would occur that are not evaluated in other sections of this SEIR.

## 18.3 GROWTH-INDUCING EFFECTS

Public Resources Code Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(d) of the State CEQA Guidelines states that a project is growth-inducing if it could "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Direct growth inducement would result if a project involved (for example) the construction of new housing. Indirect growth inducement would result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises), involved a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services, or removed an obstacle to housing development. Examples of growth-inducing actions include extending water, wastewater, fire, or other types of services in areas not previously served; extending transportation routes into previously undeveloped areas; and establishing major new employment opportunities.

The project would involve construction of a multi-use trail system and trailhead parking facilities within a rural recreational setting. Implementation of the HFRP Trails Expansion project could occur in phases and the work would be performed by one or more crews from the California Conservation Corps, licensed contractors, volunteers, and/or County staff. These activities would generate short-term employment opportunities; however, the work would be temporary and would occur over several years, with certain activities starting and stopping for shorter durations within that time period. Because of the limited number and type of new jobs that would be generated and the temporary nature of those jobs, it is anticipated that the new jobs would be filled using the existing local employment pool. Additional rangers and County Parks staff members would be needed to manage the proposed Trail Expansion areas. However, although the proposed project would require additional workers, the number of additional rangers and County Parks staff would have very little effect on the local workforce. For these reasons, indirect growth-inducing impacts resulting from implementation of the proposed Trails Expansion project would be less than significant.

The Trail Expansion areas would be consistent with permitted uses allowed in the Farm zone district, as parks are an allowed use within the Farm zone district, pursuant to approval of a use permit. Fire and emergency services as well as utilities are also provided to the area. The project includes mitigation that enhances public safety through the purchase of a light rescue emergency services vehicle (which can also be used for the residential areas in the vicinity of the expansion areas), new infrastructure to support firefighting, providing sources of water for fire

suppression, and creating places to post emergency command centers by utilizing parking areas when necessary. Use of the project features would be regulated through the permit system that controls public access and limits the number of guests to match the level of improvement and ensure adequate service levels. The level of proposed improvements is not sufficient to upgrade the local infrastructure in a way that supports growth and associated need for service. Local roadways are constrained and beyond physical improvements, there are regulatory approvals and permit requirements (e.g., water and wastewater facilities and capacity, compliance with the General Plan and Placer County Zoning Ordinance) that serve as limitations on future development. These permits and approvals must be met for any further development to occur along project roadways; therefore, the project would not result in direct growth-inducing effects.

## 18.4 CUMULATIVE IMPACTS

Section 15130 of the State CEQA Guidelines requires that an EIR discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." According to Section 15065, "Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, other current projects, and probable future projects as defined in Section 15130." Sections 15130 and 15355 of the State CEQA Guidelines both stress cumulative impacts in the context of closely related projects and from projects causing related impacts.

The term "considerable" is subject to interpretation. The standards used herein to determine whether an effect is considerable are that either the impact of the project would contribute in any manner to the existing significant cumulative impact, or the cumulative impact would exceed an established threshold of significance when the project's incremental effects are combined with similar effects from other projects.

State CEQA Guidelines Section 15130(b) directs the crafting of an adequate discussion of cumulative impacts:

> The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great a detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A cumulative analysis may employ either of two methods for evaluating cumulative impacts; this Draft SEIR uses the list method in accordance with Section 15130(b) (1) (A) of the State CEQA Guidelines, which allows the lead agency to consider "past, present, and probable future projects producing related or cumulative impacts…." The environmental influences of past projects and present projects that have been implemented already exist as a part of current conditions in the project area. Therefore, the contributions of past and present projects to environmental conditions are adequately captured in the description of the existing settings within each resource chapter (Chapters 4.0 through 16.0) and need not be specifically listed here. This cumulative impact analysis focuses on the potential cumulative physical changes to the existing setting that could occur as a result of a combination of this proposed trail project and probable future projects that are reasonably foreseeable.

### 18.4.1 OTHER RELEVANT PROJECTS

#### HIDDEN FALLS REGIONAL PARK (EXISTING)

The existing HFRP covers roughly 1,200 acres and has approximately 30 miles of natural-surface, multi-use trails, with public parking located at Mears Place. The trails within HFRP cross Raccoon Creek and Deadman Creek via bridges in three locations. Raccoon Creek flows through the park from east to west and Deadman Creek joins Raccoon Creek from the south. Existing park amenities include two waterfall overlooks, interpretive displays, restrooms, drinking fountains, picnic areas, benches, trash receptacles, and hitching posts and horse-watering areas for equestrians. Since fully opening to the public in 2013, HFRP has grown in popularity and visitation.

#### PLACER COUNTY WINERY AND FARM BREWERY ZONING TEXT AMENDMENT (FUTURE PROJECT)

Placer County is currently preparing an Environmental Impact Report evaluating the impacts of amending the Winery & Farm Brewery Ordinance. In general, the proposed amendment is intended to preserve and protect agricultural land, support the tenets of agritourism, and address competing interests with regard to residential and agricultural uses. The zoning text amendment affords additional event allowances by-right, and as such, analyzes this net new allowance for existing and future wineries and farm breweries. From a standpoint of traffic and transportation, the amendments do not change the day-to-day operation of wineries and farm breweries; nor does the amendment change the process undertaken by the County to process new winery and farm brewery applications. The amendment will change the number of agricultural promotional events permitted at wineries and farm breweries and will increase the number of extraordinary events that are allowed at existing and future facilities located on large (10+ acre) parcel sizes.

#### SIERRA COLLEGE BLVD / SR 193 RETAIL CENTER (FUTURE PROJECT)

Placer County has been in pre-development discussions regarding a possible retail center to be constructed at the intersection of Sierra College Blvd and SR 193. This 10-acre development would require a GPA/rezone and would be subject to an EIR before consideration by the Placer County Planning Commission and Board of Supervisors. However, for this analysis this project has been assumed to be completed to provide a very conservative assessment of cumulative impacts.

#### ROADWAY IMPROVEMENTS (FUTURE PROJECT)

Cumulative transportation infrastructure is identified in various County and regional planning documents. Placer County administers the Countywide Traffic Mitigation Fee Program, which requires new development to contribute to the cost of circulation system improvements of county wide benefit. Individual benefit districts have been established. These improvements that affect project area roads are assumed to be in place under cumulative conditions. In addition, the improvements to Garden Bar Road that were required to support full use of the HFRP site, as approved in 2010, have been assumed to be constructed under the cumulative base condition.

When preparations began on this Draft SEIR, the California Department of Transportation (Caltrans) was evaluating options for improving State Route (SR) 49 near the HFRP Trails Expansion site, including improvements to the intersections of SR-49 and Cramer Road and SR-49 and Lone Star Road, but discussions were in their infancy and there was no certainty as to which direction Caltrans would take or if funding was available. Therefore, the off-site improvements to these two intersections were mentioned, but were not included

in the cumulative setting or considered as feasible mitigation. As recently as mid-August of 2019, funding was approved by the California Transportation Commission (CTC) and programmed for the proposed highway improvements, which include two roundabouts and concrete median barrier from 0.3 miles south of Lorenson Road/Florence Road to 0.3 miles north of Lone Star Road.

## 18.4.2 CUMULATIVE IMPACTS

Cumulative impacts of the project are evaluated separately for each environmental topic area addressed in this SEIR. Within each topic area, the cumulative impact analysis focuses on the potential cumulative physical changes to the existing conditions that could occur as a result of a combination of the project and probable future projects described above.

### LAND USE AND AGRICULTURAL RESOURCES

Chapter 4.0 identifies the effects of the existing HFRP and proposed HFRP Trails Expansion project on land use, planning, and agricultural resources. The HFRP Trails Expansion project would be consistent with the land uses and zoning of the project area, including the goals and policies of the General Plan and Placer Legacy. Therefore, operation of the HFRP Trail Expansion project would not create a conflict with any plans or policies adopted for the protection of environmental resources, nor divide an established community. The HFRP Trails Expansion Project would also be consistent with the future land uses of those surrounding properties. Operation of the project does not require the conversion of agricultural land to a developed use and existing livestock grazing would continue under the project. Because no significant impact on land use or agricultural resources was identified, the HFRP Trails Expansion would not create a considerable contribution toward a cumulative impact.

### SOILS, GEOLOGY, SEISMICITY, AND MINERAL RESOURCES

Chapter 5.0 identifies the effects of the existing park and proposed Trails Expansion project on soils, geology, seismicity, minerals and paleontological resources. Disturbance of topsoil and removal of vegetation during construction of the proposed Trails Expansion project would increase the potential for wind and water erosion. The project could include construction or renovation of existing buildings on-site for human occupancy (e.g., caretaker residence at the ranch house site, restrooms) and construction of bridges that could, though unlikely, be subject to ground shaking, liquefaction, and landslides. Disturbance of naturally occurring asbestos fibers could also create a health hazard, is considered potentially significant, and could be cumulatively considerable.

Mitigation of project impacts requires the County to obtain authorization from the Central Valley RWQCB for land disturbance due to construction and operation and implement erosion and sediment control measures. Mitigation also requires the County to obtain and implement seismic engineering design recommendations, and prepare and implement an asbestos dust control plan, if needed. Because the project would implement site-specific mitigation consistent with the Central Valley RWQCB program and Placer County Air Pollution Control District, the incremental effect of the project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. The project would not contribute to a significant cumulative effect on soils, geology, or seismicity.

### CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

Chapter 6.0 identifies the effects of the existing HFRP Trails Expansion Project on cultural resources, including tribal cultural resources. The project has the potential to affect known cultural resources and yet-to-be-discovered

subsurface cultural remains or human interments. The impacts of the project on cultural resources in the project area are considered potentially significant and could be cumulatively considerable.

Mitigation of impacts of the project includes modifying trail alignments to avoid potentially significant cultural resources, and halting construction immediately and notifying a qualified professional archaeologist of any discovery of cultural materials or human interments. The archaeologist would determine whether the resource is potentially significant as per the California Register of Historical Resources and would develop appropriate mitigation. If a Native American burial is discovered, Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code would be complied with to ensure that the site is properly protected. Additionally, and as requested by the United Auburn Indian Community and Colfax Todds Valley Consolidated Tribe, post-grading/pre-public access notification to the two tribes would be made in order to provide the opportunity for the tribes to inspect the various graded areas for tribal cultural resources prior to allowing the public on the sites.

Because the project would implement site-specific mitigation consistent with the California Health and Safety Code and the California Public Resources Code and provide post-grading notification as requested by the United Auburn Indian Community and Colfax Todds Valley Consolidated Tribe, the incremental effect of the HFRP Trails Expansion Project would not be cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. Therefore, the HFRP Trails Expansion Project would not contribute to a significant cumulative effect on cultural resources.

### VISUAL RESOURCES

Chapter 7.0 identifies the effects of the HFRP and HFRP Trails Expansion Project on visual resources. The project would not be visible from any scenic vistas or scenic highways, although there would be some partial views of the access roads and parking areas from adjacent properties. Project features would incorporate the use of natural colors and materials to the extent possible so that they would blend with the surrounding environment. Views of trails and recreational facilities from the surrounding areas would be limited. The project would introduce some new low-level security lighting on the buildings on-site; however, the lighting would be similar to lighting used in the local areas, and all lighting would be required to be the fully-cut off, fully-shielded style in order to direct light down, and not up or out. Road improvements along Garden Bar Road, Curtola Ranch Road, and Bell Road would be visible to nearby residents and would change the visual character of Garden Bar Road. Because of the tree removal necessary to widen Garden Bar Road, the impacts of the project on visual resources along Garden Bar Road are considered significant and would be cumulatively considerable.

Revegetating temporarily disturbed areas to minimize visual quality impacts and protecting oak woodlands would reduce the visual impact, but not to a less-than-significant level. Because the project's effects would not be reduced to a less-than-significant level, the project's contribution to a cumulative effect on visual resources would be considerable. Therefore, the project would contribute to a **significant and unavoidable cumulative effect** on visual resources.

### TRANSPORTATION AND CIRCULATION

Chapter 8 identifies the effects of the HFRP Trails Expansion Project on transportation. Implementation of the proposed project will result in new daily vehicle travel, which would add VMT to the study area. The proposed project is anticipated to generate 2,036 daily trips on a Saturday and 944 daily trips on a typical weekday, as

shown in Tables 8-5 and 8-6 above. The average trip lengths and trip distribution for a peak Saturday are expected to be similar to the existing park, as shown in Table 8-7 of Section 8.

The traffic operations analysis contained in Section 8.6 indicates that the project will contribute towards unacceptable traffic operations at the SR 49/Lone Star Road and SR 49/Cramer Road intersections under cumulative plus project conditions. Although that results in a conflict with the County's LOS policy, LOS is not considered to be a significant impact under CEQA. Refer to Section 8.6 for more information about the traffic operations analysis.

**Impact 18-1 Conflict with CEQA Guidelines Section 15064.3 subdivision (b) - Cumulative Plus Project Conditions.** *The proposed project will continue to generate VMT under cumulative plus project conditions and since no threshold has been established by the County and the project is inconsistent with the MTP/SCS, the increase in VMT is a cumulatively considerable impact.*

The standard of significance of VMT has not been established for Placer County. The County is currently working on an SB 743 Implementation Plan, which will establish standards of significance for VMT under CEQA analysis. Since OPR's recommended thresholds are not applicable and Placer County has not yet established thresholds for VMT, any increase in VMT results in a significant impact. Nonetheless, in an abundance of caution, the County undertook a VMT analysis of the project.

VMT estimates for a peak Saturday were developed by multiplying the trip generation by the average trip length and the average trip distribution percentages for each geographic area where visitors originate from. VMT for each geographic area is then summed to generate the VMT estimate for the project for a peak Saturday. The analysis indicates that the project would generate approximately 78,000 VMT on a peak Saturday. To put that in context, the existing HFRP generates approximately 18,000 VMT on a peak Saturday. The proposed project would result in a substantial increase in VMT over the existing park operations. The project will continue to generate VMT into the future, which will result in a cumulatively considerable impact.

Additionally, the proposed project is located within an area designated as "Lands not Identified for Development" in the 2020 MTP/SCS. The MTP/SCS is aimed at reducing greenhouse gas emissions through VMT reduction, and these efforts are primarily focused on urban areas, where investments in the roadway system and transit, bike, pedestrian infrastructure are built into the MTP/SCS to achieve identified air quality targets.

According to the MTP/SCS, "Lands not Identified for Development" areas are typically located outside of urbanized areas and designated in local land use plans for no further development. Travel occurs almost exclusively by automobile, as transit service is minimal or nonexistent.

Figures 3-10 and 3-11 of the 2020 MTP/SCS show the 2016 and projected 2040 vehicle miles traveled per capita for the six-County SACOG region. The sub-region in which the project is located is shown as having both now, and in the future, greater than 150% of the regional average VMT per capita. Additionally, these areas are recognized as having high VMT per capita both now and in the future (2040 MTP/SCS Planning Period). The proposed project would further increase VMT above the assumptions in the MTP/SCS. Thus, it can be concluded that the potential increased activity associated with the proposed project would conflict with the MTP/SCS' strategy for reducing VMT through investments in roadway and multi-modal infrastructure primarily in urban areas.

The County does not have an established threshold for VMT and is not required to have a threshold in place until July of 2020, but because the project generates additional VMT beyond the baseline condition and it is not consistent with the MTP/SCS land use plan, the proposed project would result in a **significant impact.**

### Mitigation Measures

Mitigation measures for this impact are limited. Most mitigation measures that reduce VMT have low to negligible effects in rural areas, such as bike lanes, transit network improvements, and pedestrian networks. Other mitigation measures are not applicable, like commute reduction strategies and diversifying or intensification of land uses on the project site. The only feasible mitigation measure is the parking reservation system, which is already being employed as part of the project for weekends, holidays and other peak usage days. The parking reservation system serves to promote carpooling and control the amount of VMT generated by the proposed project. Even with the parking reservation system, VMT of the proposed project continues to exceed the applicable threshold. Therefore, this impact remains **significant and unavoidable**.

## AIR QUALITY

Chapter 9.0 identifies the effects of the HFRP Trails Expansion Project on air quality. The HFRP Trails Expansion Project would result in construction-related effects on air quality. Construction-related emissions are considered as short-term or temporary but have the potential to generate emissions of criteria air pollutants ($PM_{10}$ and $PM_{2.5}$) and ozone precursors (ROG and $NO_X$) during site preparation (e.g., excavation, grading, and clearing); exhaust from equipment operating onsite, material transportation, workers traveling to and from the site, and other miscellaneous activities. All construction activities within the air basin are considered to contribute towards current air quality violations similar to those of the HFRP Trails Expansion Project. Based on air quality modeling conducted consistent with PCAPCD guidance, construction-related activities associated with the worst-case day would result in project-generated daily unmitigated emissions of approximately 7.3 lb/day of ROG, 52 lb/day of $NO_X$, and 21 lb/day of $PM_{10}$. These emission estimates are below the adopted thresholds for PCAPCD, so project construction activity would not result in a cumulatively considerable contribution to the violation of air quality standards.

Operation of the Trails Expansion project would generate emissions of ROG, $NO_X$, and PM from visitors traveling by motor vehicle to and from the expansion areas, utility usage, and pumps used to operate groundwater wells. The model results indicate project operation would not result in emissions of ROG, $NO_X$, or $PM_{10}$ exceeding PCAPCD's significance threshold. Thus, project operation would not result in a cumulatively considerable contribution of air emissions and would not contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with air quality planning efforts. Although the air basin is designated non-attainment for Ozone, the project's incremental contribution to the significant cumulative effect is not cumulatively considerable.

## NOISE

Noise is a localized occurrence and attenuates rapidly with distance. Each proposed trail extension area is geographically distant from one another so no single receptor would be exposed to the entire duration of construction generated noise. Construction of project improvements would result in exterior noise levels experienced at the closest noise-sensitive use that are predicted to exceed 82 dBA $L_{eq}$ if feasible noise controls are not implemented. If construction activities were to occur during the more noise-sensitive hours of the day (i.e.,

hours not exempt under the Placer County Noise Ordinance) or if construction equipment were not properly equipped with noise control devices, construction-generated noise levels would substantially increase noise experienced at nearby sensitive receptors. However, construction activity is limited to daytime hours and would be exempt from the Noise Ordinance.

Operation of the HFRP Trails Expansion project would generate noise from motor vehicles traveling on roadways, as well as parking lot activity (e.g., car doors closing, people talking and laughing, children playing, etc.). Mobile source noise along studied roads would not create a perceptible increase in traffic noise along roadways leading to the trailheads. Once the vehicles near the entrance to a trailhead vehicle noise because more noticeable. Modeling results predict that noise levels experienced along Curtola Ranch Road and Bell Road at the access driveways could result in an audible increase in ambient noise experienced at nearby residences. As discussed in Chapter 10 “Noise”, predicted noise levels at noise-sensitive receptors along Curtola Ranch Road near the project access driveway and Bell Road near the Twilight Ride driveway are expected to increase by more than 3 dBA. This increase would be audible but would not expose a sensitive receptor to noise levels that exceed adopted standards. Application of mitigation to restrict the hours of operation to daylight hours only and require use of pavement at the access roads would reduce project related noise increase to levels considered acceptable.

Stationary-source noise generated by activity in the proposed parking lots and trailheads would not expose sensitive receptors to noise levels that exceed adopted standards listed in the County’s noise regulations. Noise generated by project related activities would occur during the daytime hours when people are less sensitive to noise. Thus, operation of the HFRP Trails Expansion Project would not result in a significant impact to the noise environment with implementation of mitigation measures and the project would not result in a cumulatively considerable contribution to a significant noise impact when considered with other past, present, and reasonably foreseeable projects.

### HYDROLOGY AND WATER QUALITY

Chapter 11.0 identifies the effects of the park and proposed expansion project on hydrology and water quality. The project could result in temporary discharges of sediment and other contaminants into ephemeral drainages and Raccoon Creek in the project area. Installation of on-site septic systems could cause a change in the quality of the groundwater in the project area, and implementation of the project could cause impacts on groundwater supply because of the upgrade or installation of up to three additional groundwater wells in the expansion area to be used as a source for drinking water and restrooms.

Providing water to the public is a regulated activity under the California Health and Safety Code. Site occupancy and anticipated uses of a facility are the primary factors in determining whether a Transient Non-community (TNC) public water system will be required. As building permit applications for new study facilities are submitted to the County, such applications would be reviewed by the Placer County Environmental Health Department to determine TNC public water system requirements. Any future study facilities not providing a TNC public water system would be required by the County to sign a Declaration of Small Water System Status, which verifies that provision of a state small water system, rather than a public water system, is appropriate for the facility based on the number of service connections provided, the number of days that the facility is operational, the population served on a daily basis, and the number of days in a year that at least 25 people will be served. Any violation of TNC public water system requirements is a code enforcement issue. Therefore, the County would ensure that water systems at existing and future study facilities would be adequate to accommodate planned uses, including

Special Events. As mentioned above under "Soils, Geology, and Seismicity," mitigation of impacts of the HFRP Trails Expansion Project would include obtaining authorization for construction and operation with the Central Valley RWQCB and implementing erosion and sediment control measures. Mitigation would also include preparing and implementing a grading and drainage plan and obtaining permits for wells and septic systems through the Placer County Division of Environmental Health. Because the project would implement site-specific mitigation consistent with the Central Valley RWQCB program and County permits, the incremental effect of the project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. The project would not contribute to a significant cumulative effect on water quality or hydrology.

### BIOLOGICAL RESOURCES

Chapter 12.0 identifies the effects of the existing park and proposed Trails Expansion Project on biological resources. Other known cumulative projects in the vicinity include roadway upgrades, revisions to the existing County Code (Winery Ordinance), and new commercial development from which the greatest potential for adverse effects on special-status species would consist of habitat disturbance related to construction and passive recreation. These impacts on biological resources are considered potentially significant. The contribution of the project to cumulative effects on biological resources in the project area could be cumulatively considerable.

Mitigation of impacts of the project consists of establishing buffers around sensitive resources, conducting pre-construction surveys, preserving oak woodland habitat within the project area, paying in-lieu fees for oak woodland preservation consistent with the Placer County Tree Ordinance, and obtaining and complying with terms of applicable permits. The project would implement site-specific mitigation consistent with regulations of the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and U.S. Army Corps of Engineers that would reduce these impacts to a less-than-significant level. Therefore, the incremental effect of the HFRP Trails Expansion Project would not be cumulatively considerable when considered with other past, present, and reasonably foreseeable projects.

### PUBLIC SERVICES AND UTILITIES

Chapter 13.0 identifies the effects of the existing HFRP and Trails Expansion Project on public services and utilities. Use of the existing HFRP has increased calls for emergency medical service (mostly heat-related calls) during the peak fire season, which means emergency service personnel who answer calls at HFRP are not available for other calls. Although the HFRP Trails Expansion would attract more visitors to this area, with the implementation of project improvements and the inclusion of mitigation measures, this project would not have a significant impact on fire protection and emergency response. Proposed trails cross rugged terrain and are often remote, requiring specialized equipment for access by emergency personnel. To address these issues, the HFRP Trails Expansion Project will be phased over time so the number of visitors is gradually increased, and project improvements such as the construction of two new bridges to help response times, the construction of new emergency/maintenance roads and emergency helicopter landing zones at the planned parking areas, and the mitigation measure requiring the provision of a Light Rescue Vehicle (an LRV), will improve emergency access within the park areas. The purchase of the LRV will enhance response to remote areas of the park as well as to other areas of the Placer County Fire Department/CAL FIRE's service area.

With regards to police services, there would not be a significant increase in demand from the proposed project on police protection which would require the construction of new Sheriff's facilities. For both fire and police

services, this project will not add to any cumulative impact of all relevant contemplated projects, as shown in Section 18.4.1.

The HFRP Trails Expansion Project would include installation of up to three water tanks in the expansion area, and septic systems within the park and expansion project area. Although soils in the project area exhibit limitations for the installation of a septic system, soil testing has identified suitable soils for septic systems at all three proposed parking areas, and the park and expansion project would comply with Central Valley RWQCB and County Division of Environmental Health regulations to ensure that on-site systems are properly engineered and designed to suit the on-site soil conditions. All wells for the proposed project would be required to obtain a well permit from the Placer County Division of Environmental Health. Because the HFRP Trails Expansion project would not connect to public sewer or water systems, it would not have a significant cumulative effect on public utilities when considered with other past, present, and reasonably foreseeable projects.

### HAZARDOUS MATERIALS AND HAZARDS

Chapter 14.0 identifies the effects of the existing HFRP and proposed trails expansion project on hazardous materials and hazards. An accidental-spill prevention and response plan would be implemented, employees handling hazardous materials would be trained in safety measures, and hazardous materials would be stored in a designated staging area. A safety hazard plan would also be prepared and implemented to ensure construction workers are not exposed to hazards. In addition, as mentioned above under “Soils, Geology, and Seismicity” and “Hydrology and Water Quality,” the project would obtain authorization for construction and operation with the Central Valley RWQCB and the County and would implement erosion and sediment control measures. Because the project would implement this site-specific mitigation, the incremental effect of the project is not cumulatively considerable when considered with other past, present, and reasonably foreseeable projects. The project would not contribute to a significant cumulative effect on hazardous materials and hazards.

### GREENHOUSE GAS EMISSIONS AND ENERGY

Project operation would generate emissions of GHG below the PCAPCD Bright-line threshold of 10,000 MT $CO_2e$ per year. According to the PCAPCD, the Bright-line level for the operational phases represents an emissions level which can be considered cumulatively considerable. Modeling output for the proposed project predicts operation of project components would generate approximately 1,347 MT $CO_2e$ per year, which is below the PCAPCD operational threshold of 10,000 MT $CO_2e$ per year that represents a bright line threshold. Therefore, the project’s impacts do not represent a cumulatively considerable contribution toward global GHG emissions. Similarly, all future development with the potential to generate GHG emissions would be required to demonstrate compliance with applicable federal and state regulatory requirements, including General Plan goals and policies of the affected jurisdiction, intended to reduce and/or avoid potential adverse environmental effects. At a regional level, the Sacramento Area Council of Governments (SACOG) 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) has been adopted to achieve consistency with state mobility and GHG goals such as AB 32. As such, cumulative impacts to GHG emissions would be mitigated on a project-by-project level, and in accordance with the established regulatory framework, through the established regulatory review process.

### WILDFIRE

CAL FIRE identifies the proposed expansion area as being in both a Moderate and High Fire Hazard Severity Zones. The majority of the new trail system would be located in the Harvego Preserve, and land adjacent to this area (north of the Bear River) is rated either a High or Very High Fire Hazard Severity Zone (CAL FIRE 2019). Since 2006, there has never been a visitor-caused fire at the existing HFRP. However, sparks from construction and maintenance equipment could generate fire risks in the project area and visitors could generate fire risks.

The County would manage vegetation within the trail expansion areas consistent with the methods outlined in the *Hidden Falls Regional Park Vegetation, Fuels and Range Management Plan* as a working guide to reduce the risk of fire in the project area and would continue to work with CAL FIRE to reduce the fire hazard within the HFRP and Trail Expansion areas. The Placer Land Trust actively manages the landscape through management plans that incorporate defensible spaces and fuel breaks through the grazing and thinning of vegetation. Bridges designed to accommodate emergency vehicles would be 8–12 feet wide. As the trail network expands, new wells to extract water would be installed to support wildfire suppression and mobile telephone service is available at each of the parking areas for emergency calls. The HFRP Trail Expansion Project includes construction of two new helicopter landing zones, the installation of three new 12,000-gallon water tanks, and a mitigation measure that requires the purchase of a Light Rescue Vehicle (LRV) for CAL FIRE use within the park and trail expansion areas as well as in the local area in general. The LRV has the capability to hold up to 500 gallons of water and other fire retardant to provide an initial response to any potential fires. Because it is smaller in size than typical fire engines, it will be able to access more remote portions of the Trails Expansion area to provide faster response times. In addition, the County would comply with all laws, plans, policies, and regulations related to fire safety and wildfire suppression identified in Section 13.0, “Public Services and Utilities,” and Section 16.0, “Wildfire,” which would reduce the potential risk of wildfires, reduce the severity and size of potential wildfires, and improve CAL FIRE’s ability to respond more quickly to wildfires. Cumulative impacts of all relevant contemplated projects, as shown in Section 18.4.1, will potentially increase wildfire service calls associated with developed properties but are offset by increased tax revenues that will provide additional resources for various public services, including fire. Therefore, the project would not contribute to a significant cumulative effect associated with increased risks for wildfire when considered with other past, present, and reasonably foreseeable projects.

# 19.0 LEAD AGENCY AND SEIR PREPARERS

## 19.1 COUNTY OF PLACER SEIR PROJECT TEAM

Lisa Carnahan, Parks Senior Planner

Andy Fisher, Parks Administrator

Mark Rideout, Deputy Public Works Director

Michael Profant, County Counsel

Leigh Chavez, Environmental Coordinator

Nikki Streegan, Planning

Amber Conboy, Transportation and Traffic

Angel Green, Air Quality

Joseph Scarborough, Environmental Health

Phil Frantz, Engineering and Surveying

Jim Hudson, Placer County Fire/CAL FIRE

## 19.2 AECOM

Petra Unger, Principal In Charge

Ken Koch, Project Manager

Susan Sanders, Sr. Wildlife Biologist, Project Manager

Kristi Asmus, Biologist V

Tammy Beyerl, Biologist

Pamela Brillante, Biologist

Vanessa Tucker, Wildlife Biologist

Lisa Reynolds, Urban and Environmental Planner

Issa Mahmodi, Environmental Scientist II

Jenifer King, Senior Environmental Scientist

Wendy Reynolds, Senior Environmental Scientist

Deborah Jew, Document Production Coordinator

Vivian Gaddie, Sr. Graphics Designer

Lisa Clement GISP, Senior Associate GIS

Bryn Montgomery, GIS Specialist

## 19.3 KD ANDERSON & ASSOCIATES, INC. (TRAFFIC)

Ken Anderson, P.E.

Laura Terry, P.E.

## 19.4 HELIX ENVIRONMENTAL PLANNING, INC. (SITE PLANS)

Meredith Branstad, Landscape Architect Group Manager

Jessamyn Lett, Landscape Designer

Daniel Blair, Landscape Designer

## 19.5 CAL FIRE/PLACER COUNTY FIRE DEPARTMENT NEVADA-YUBA-PLACER UNIT

Jim Hudson, Assistant Chief - West Division Operations

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None.

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None.

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# APPENDIX A

Scoping Report with Notice of Preparation (NOP)

Notice of Preparation (NOP)

**COMMUNITY DEVELOPMENT/RESOURCE AGENCY**
**Environmental Coordination Services**
County of Placer

**DATE:** June 4, 2018

**TO:** California State Clearinghouse
Responsible and Trustee Agencies
Interested Parties and Organizations

**SUBJECT:** ***Revised*** Notice of Preparation of a Subsequent Environmental Impact Report for the Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project

**REVIEW PERIOD:** June 5, 2018 – July 6, 2018

Placer County (County) is the Lead Agency for the Hidden Falls Regional Park Trails Network Expansion Project (Project), and is preparing a Subsequent Environmental Impact Report (SEIR) for the Project to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.).[1] The purpose of this Revised Notice of Preparation (NOP) is to provide responsible agencies and interested persons with sufficient information in order to make meaningful responses as to the scope and content of the SEIR. Your timely comments will ensure an appropriate level of environmental review for the Project.

An NOP was previously issued for the Project, inviting comment from January 31, 2017 through March 1, 2017. This Revised NOP is being released because the project description has been amended to reflect the potential use of 50 acres located at 5345 Bell Road in Auburn (APNs 026-110-012 and 018) (the "Twilight Ride property") for additional trailhead parking (approximately 100 auto and 40 horse trailer spaces), as well as potential horse-boarding.

**Project Description:** Hidden Falls Regional Park currently includes approximately 30 miles of trails that are open to the public. The Project would expand the trail system into areas northeast, west, and east of the existing park, where the County holds existing trail easements or owns property. In total, approximately 30 additional miles of trails would be added, along with the construction of two additional bridges over Raccoon Creek between the existing regional park trail network and Taylor Ranch (as well as one additional bridge over Raccoon Creek within Hidden Falls Regional Park that was analyzed under the prior EIR), additional parking, access areas, and other improvements, and possible improvement of off-site access roads. The park features in the expansion areas would include accessibility features compliant with the Americans with Disabilities Act, drinking water fountains and restrooms, on-site groundwater wells, fire suppression facilities, equestrian features (e.g., horse watering, hitching posts, barn, paddocks, horse boarding), other potential concessions compatible with the characteristics of the park (e.g., bicycle rentals, nature education classes), picnic areas, benches, bear-proof trash receptacles, and interpretive displays.

The parcels involved in the expansion to the northeast are either owned by Placer Land Trust, or are held in a Conservation Easement by Placer Land Trust, with associated trail easements held by the County. Other connecting areas west and east of the existing park are owned by Placer County or the County holds trail easements within the areas. The Project would require the County's approval of a modified Conditional Use Permit (CUP) to cover the existing Hidden Falls Regional Park as well as the expansion areas. This modified CUP would supersede the existing CUP for the regional park, and would cover the development and operation of the existing and expanded trail network, the associated parking and roadway improvements needed, and other miscellaneous park amenities (listed in the prior paragraph).

The SEIR will evaluate the feasibility of parking and access improvements that would make optimal use of the parking area at Mears Place, would create opportunities to use already-permitted parking off Garden Bar Road on a limited, reservation basis, and would provide new vehicle access to and parking for trail network expansion areas to the north, at both the Harvego Bear River Preserve area and the Twilight Ride property on Bell Road. The

[1] An Environmental Impact Report (EIR) was previously certified in 2010 for the expansion of Hidden Falls Regional Park (State Clearinghouse No. 2007062084).

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phasing and associated road improvements discussed in the original EIR for the Garden Bar entrance will be further clarified. The SEIR will also consider a system whereby park access use permits could be issued to adjacent landowners who would provide overflow parking spaces/horse-boarding facilities to visitors, and management strategies that would link available parking to potential park users before they arrive at the site. Lastly, the SEIR will analyze the types of uses which will be allowed throughout the park.

**Project Location:** The proposed trail expansion area is located northeast, west and east of the existing Hidden Falls Regional Park, and south of the Bear River in Placer County. The Project area is approximately 40 miles northeast of Sacramento (see Figure 1, Regional Location Map). The existing Hidden Falls Regional Park area encompasses approximately 1,200 acres, and includes a parking area at Mears Place, as well as an already-permitted future parking area located off of Garden Bar Road. Figure 2 shows the Project area including regional highways (e.g., State Route 49) and local roads including Big Hill Road through the center of the Project area; Mt. Pleasant Road to the south; Bell, Cramer, and Lone Star Roads to the east providing access from State Route 49; and Garden Bar Road to the west.

The proposed expansion areas to the northeast of the existing park consist of the areas known as Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres), as well as privately-owned parcels with trail easements, such as the Liberty Ranch (313 acres). The trails will also cross the Kotomyan Preserve (160 acres) and the Outman Big Hill Preserve (80 acres). These areas are owned by the Placer Land Trust and are to be held as conservation land in perpetuity. Entry to these areas is currently limited to guided tours led by the Placer Land Trust. Placer County has trail easement rights within these properties. A parking lot and trail connection is also proposed from a County-owned parcel off of Garden Bar Road to the west of the existing park. Additionally, parking and trailhead access are proposed from the Twilight Ride property on Bell Road, as well as from the Harvego Bear River property. Figure 3 shows the existing regional park and the boundaries of the proposed trail network expansion areas.

For more information regarding the project, please contact Lisa Carnahan, at (530) 889-6837. A copy of this NOP cover letter, as well as additional information on the Project, is available for review at the Auburn Public Library, the Rocklin Public Library, the Lincoln Public Library, the Placer County Community Development Resource Agency (Auburn), and on the Placer County website:

http://www.placer.ca.gov/departments/communitydevelopment/envcoordsvcs/eir

**NOP Scoping Meeting:** In addition to the opportunity to submit written comments, one public scoping meeting will be held by the County to inform interested parties about the Project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. This meeting will be held on Thursday, June 14, 2018, from 6:00-8:00 p.m. at the Placer County Community Development Resource Center, Planning Commission Hearing Room, 3091 County Center Drive, Auburn, CA 95603.

**NOP Comment Period**: Written comments should be submitted at the earliest possible date, but not later than 5:00 p.m. on **July 6, 2018** to Shirlee Herrington, Environmental Coordination Services, Community Development Resource Agency, 3091 County Center Drive, Suite 190, Auburn, CA 95603. (530) 745-3132, Fax: (530) 745-3080, cdraecs@placer.ca.gov.

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## 1.1 BACKGROUND

In January of 2010, the Placer County Planning Commission (Commission) approved a Conditional Use Permit (CUP No. 20090391) and certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2007062084) which added the property formerly known as the Spears Ranch (979 acres) to the 221-acre portion of Hidden Falls Regional Park (Park) already open to the public. These actions authorized Placer County (County) to operate and maintain the expanded Hidden Falls Regional Park (HFRP).

Presently, the County is considering expansion of the HFRP trail network system onto conservation lands either owned by Placer Land Trust (PLT) or held in a Conservation Easement by PLT, with associated trail easements held by the County, or onto land owned by the County. The project would improve access to the regional trail network by extending the existing HFRP trail system onto the conservation land and providing parking to support recreational activities as described below in Section 2.

The proposed expansion and modification to existing CUP No. 20090391 is a "project" as defined by the California Environmental Quality Act (CEQA) and subject to environmental review. In the case of the proposed HFRP trails expansion project, the County intends to prepare a Subsequent Environmental Impact Report (SEIR) consistent with CEQA Guidelines Section 15162. The focus of the SEIR is to determine whether the proposed HFRP trails expansion would result in effects not discussed in the prior EIR. The SEIR will also determine whether the project substantially increases the severity of previously identified impacts, identify additional mitigation measures, if needed, and determine whether alternatives previously thought to be infeasible and not adopted for the prior project are in fact feasible and should be incorporated into project approvals.

## 1.2 NOTICE OF PREPARATION

Once a decision is made to prepare an EIR, the lead agency must prepare an NOP to inform all responsible and trustee agencies (agencies) and interested persons that an EIR will be prepared (CEQA Guidelines Section 15082). The purpose of an NOP is to provide stakeholders with sufficient information describing the proposed project and its potential environmental effects to enable agencies and the public to make a meaningful response related to the scope and content of information to be included in the EIR.

The County originally issued an NOP for the proposed HFRP trails expansion in January of 2017. Subsequent to the release of the January 2017 NOP, the County approved the terms of a purchase and sale agreement that could lead to the acquisition of additional land with direct access to the existing trail network and provide additional opportunities for parking. Because of the changes in the proposed HFRP expansion areas from those identified in the January 2017 NOP, the County has elected to release a Revised NOP. Comments on potential environmental issues raised in response to the January 2017 NOP remain valid and need not be resubmitted. The purpose of this notice is twofold:

(1) to solicit input, by **July 6, 2018**, from interested individuals, groups, and agencies about the desired content and scope of the draft SEIR to be prepared by Placer County for the proposed project, and

(2) to announce a public scoping meeting on the proposed project, to be held at 6:00 p.m. on June 14, 2018, at the County Administrative Center, located at 175 Fulweiler Avenue, Auburn.

All comments on the Revised NOP shall be submitted to the County no later than **July 6, 2018**. Comments should be submitted to:

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603.
Phone: (530) 745-3132
Fax: (530) 745-3080
cdraecs@placer.ca.gov.

# 2.0 PROJECT DESCRIPTION

## 2.1 PROJECT LOCATION

The proposed trail expansion area is located northeast, west and east of the existing HFRP, and south of the Bear River in Placer County, approximately 40 miles northeast of Sacramento (see Figure 1, Regional Location Map). HFRP encompasses approximately 1,200 acres in the Sierra Nevada foothills, consisting of the properties formerly known as the Spears Ranch and Didion Ranch. Figure 2 shows the project area including regional highways (e.g., State Route 49) and local roads including Big Hill Road through the center of the project area; Mt. Pleasant Road to the south; Bell Road, Cramer Road, and Lone Star Road providing access from State Route 49 to the east; and Garden Bar Road to the west. The existing park has two access points, with an existing parking area at Mears Place and an area for an already-permitted future parking lot off Garden Bar Road.

Most of the proposed trail expansion areas are located north and northeast of the existing park within the Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres), and on privately-owned parcels with trail easements, such as Liberty Ranch (313 acres). Trails will also cross the Kotomyan Preserve (160 acres) and Outman Big Hill Preserve (80 acres). Additionally, parking areas with trail connections are proposed from a County-owned parcel off of Garden Bar Road to the west of the existing park, and from the Twilight Ride property on Bell Road to the Taylor Ranch, and from the Harvego Bear River Preserve to the trail system in that area. Figure 2 shows the existing regional park, the parcel off of Garden Bar Road, the Twilight Ride property off of Bell Road, and the boundaries of the proposed trail network expansion areas.

Figure 3 illustrates the existing and proposed points of access and parking including areas proposed for expansion. The majority of the trails expansion area is located between the existing regional park and the Bear River to the north. Most of these areas are owned by the Placer Land Trust and will be held as conservation land in perpetuity. Entry to these areas is currently limited to guided tours led by the Placer Land Trust. Placer County has trail easement rights within these properties.

## 2.2 EXISTING SETTING

### Existing Regional Park

The existing HFRP encompasses 1,200 acres and contains approximately 30 miles of multi-use trails, with parking located at Mears Place. Trails within the park cross Raccoon Creek (formerly Coon Creek) and Deadman Creek in three locations via pedestrian bridges. Raccoon Creek flows through the park from east to west. Existing park amenities include interpretive displays, restrooms, well, drinking

fountains, picnic areas, benches, trash receptacles, and hitching posts and horse-watering areas for equestrians.

Since fully opening to the public in 2013, HFRP, with its two waterfall overlooks and other recreational amenities, has grown substantially in popularity and visitation. As a result, the public parking area at Mears Place can become congested during holidays and weekends during good weather, and visitors have been turned away during these peak-use periods.

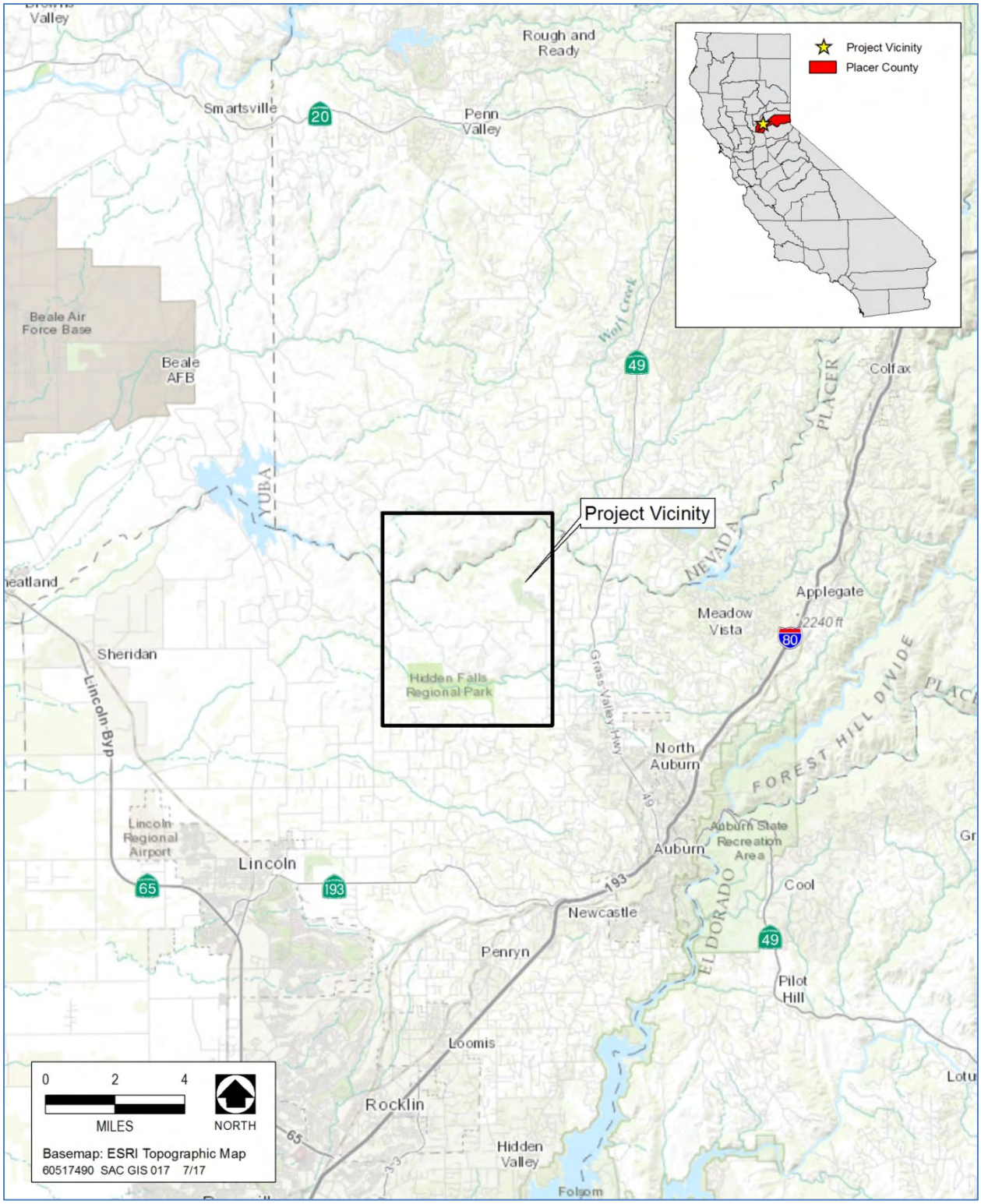

Figure 1 Regional Location

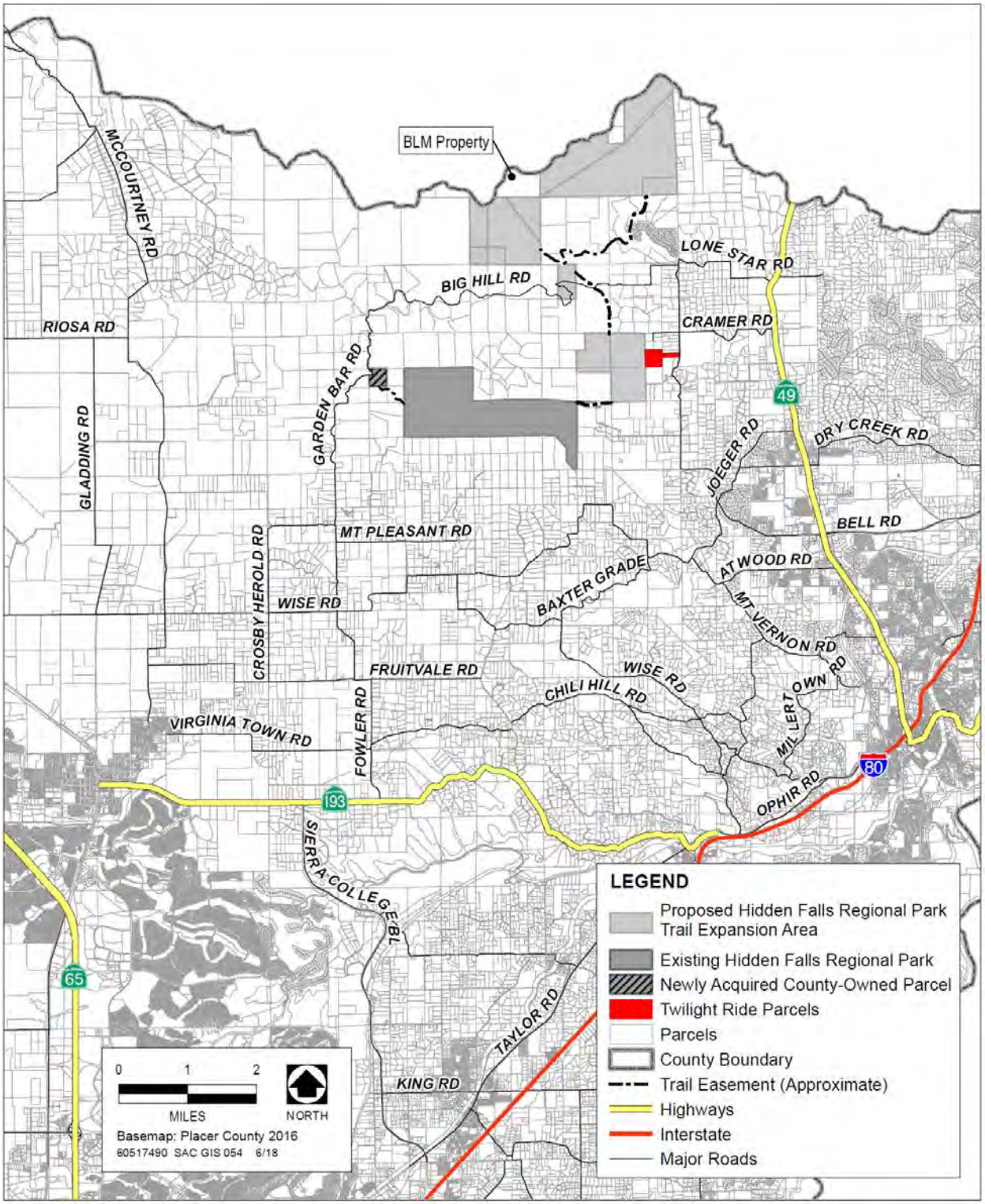


**Figure 2 Project Area**

The County Parks Division has implemented a series of operational measures to help rectify the existing parking issues, and to lessen the potential for visitors to be turned away at the entrance gate. Measures implemented to improve operations currently underway at the existing Mears parking lot include:

- Installing "No Parking" signs for a mile leading up to the park entrance;
- Use of Changeable Message Boards along the local roadways during high use days;
- Issuing daily messages on Social Media (Twitter and Facebook) regarding any trail closures and parking availability;
- Installing a web-cam with a view of the Mears Place parking area to provide real-time information on parking availability;
- Reconfiguring the Mears Place entrance to enhance traffic flow by including minor paving, signage, and pavement striping to change the direction of traffic and create a one-way flow; and
- Establishing an automated reservation system to help regulate parking availability by allowing visitors to reserve a space prior to traveling to the park.[1] Implementation of the reservation system began September 1, 2017. The intent of the reservation-based system of entry is to prevent patrons from being turned away due to unavailability of parking during peak usage times. Reservations to access the park are obtained online prior to coming to the park, thereby eliminating unnecessary vehicle trips to/from the park that must travel through the nearby neighborhoods.

The County will apply the knowledge gained from these operating methods in planning future parking areas for the expanded trails system so that any new parking areas function smoothly from the outset. Data from current use will be utilized in the SEIR to evaluate long term management strategies and provide for sustainable parking solutions which limit impacts on adjoining neighborhoods, improve the current user experience, and define future opportunities.

The existing 2009 Conditional Use Permit (CUP) for HFRP, CUP No. 20090391 approved on January 28, 2010, allows an additional parking area at the western end of the park, with access via Garden Bar Road. The County plans to construct a parking area to accommodate limited, reservation-based access off Garden Bar Road. Keeping vehicular travel to a limited number on Garden Bar Road will minimize off-site road improvements required to permit safe travel on the roadway. In anticipation of this access point becoming operational, the County acquired a new parcel off Garden Bar Road that would provide additional space dedicated for parking. Through an existing easement, this parcel would provide trail connections to the existing park. The Mears Place entrance to the park is currently under assessment with the intent to add a gated entry system and to add up to 25 additional automobile parking spaces in an overflow area. In addition, this SEIR will evaluate parking areas at the Harvego Bear River Preserve area and at the Twilight Ride property along Bell Road.

The SEIR will also consider the potential environmental impacts of granting Use Permits to adjacent property owners who may be allowed to charge park visitors for use of parking spaces and/or provide horse boarding and access to the park through private gates. Use Permits would regulate the number and

[1] https://www.placer.ca.gov/departments/facility/parks/parks-content/parks/hidden-falls

size of allowed vehicles, hours of operation, private gate usage, and other conditions to facilitate orderly use.

County Parks staff will request the approval of a modification to the existing CUP that encompasses the allowed uses on both the existing park and expansion areas. As part of this project, the type and size of allowed events and facilities will be described in greater detail and analyzed in the SEIR. The events to be considered include, but are not limited to, those allowed by the existing CUP (educational facilities, interpretive/educational classes and programs, supervised group camping, disc golf, depredation hunting, and reservation-based events), and new uses such as small venue gatherings (i.e. those involving less than 25 attendees and no amplified sound), limited horse boarding, and rentals and concessions operating within the park boundary or expansion areas. All current and proposed uses would need to complement the passive recreational and nature enjoyment features characteristic of this regional park.

## Expansion Area Characteristics

The proposed trail expansion areas are mainly located northeast of the existing park, and south of the Bear River, with other connecting trails directly to the east and west of the park. Figure 3 shows the boundaries of the trail expansion areas and shows that the project area has few roads and includes expansive undeveloped areas within the Raccoon Creek and Bear River watersheds. The area is characterized by blue oak woodland and oak–foothill pine woodland and is included in the proposed *Placer County Conservation Plan*, currently under development by the County.

The Placer Land Trust owns the Harvego Bear River Preserve, Taylor Ranch, Kotomyan Big Hill Preserve, and Outman Big Hill Preserve in fee. Taylor Ranch (321 acres) has an existing 4-mile loop trail that also crosses the 160-acre Kotomyan Preserve to the west. Raccoon Creek flows across Taylor Ranch and into Hidden Falls Regional Park. Twilight Ride is a 50-acre property that connects Taylor Ranch to Bell Road. It could provide parking for automobiles and horse trailers, facilities for horse boarding, and add another access point to the existing trail system. Liberty Ranch (313 acres) is a privately-owned cattle ranch currently under Williamson Act contract. This area has no existing trails; its intermittent drainages are tributary to the Bear River. The Placer Land Trust holds a conservation easement on the Liberty Ranch property and Placer County has a dedicated trail easement within the property that connects to the other Placer Land Trust parcels. The County's trail easement on the Liberty Ranch property is limited to a previously surveyed 25-foot wide corridor, whereas the trail easements on the remainder of the expansion area are "blanket" in nature. Therefore, there is less opportunity for trail alignment refinement on the Liberty Ranch property than there is within the rest of the expansion area under the current status of easement rights. The adjacent Outman Big Hill Preserve (80 acres) has no existing trails. Harvego Bear River Preserve (1,773 acres) has a working cattle ranch. The area has an extensive network of existing ranch roads and some trails built by the Placer Land Trust and consists of oak woodlands and grasslands adjacent to the Bear River. The area's intermittent drainages are tributary to the Bear River.

The parcel to the west of the park along Garden Bar Road is characterized by blue oak and oak-foothill pine woodlands. The County-owned parcels and easement areas directly east of the park abut Raccoon Creek, and connect the existing park with the Taylor Ranch Preserve.

The lands adjacent to these areas consist of rolling hills and are primarily private lands used for agriculture, grazing, and rural residences. The U.S. Bureau of Land Management (BLM) owns the area in between the two portions of the Harvego Bear River Preserve and south of the Bear River.

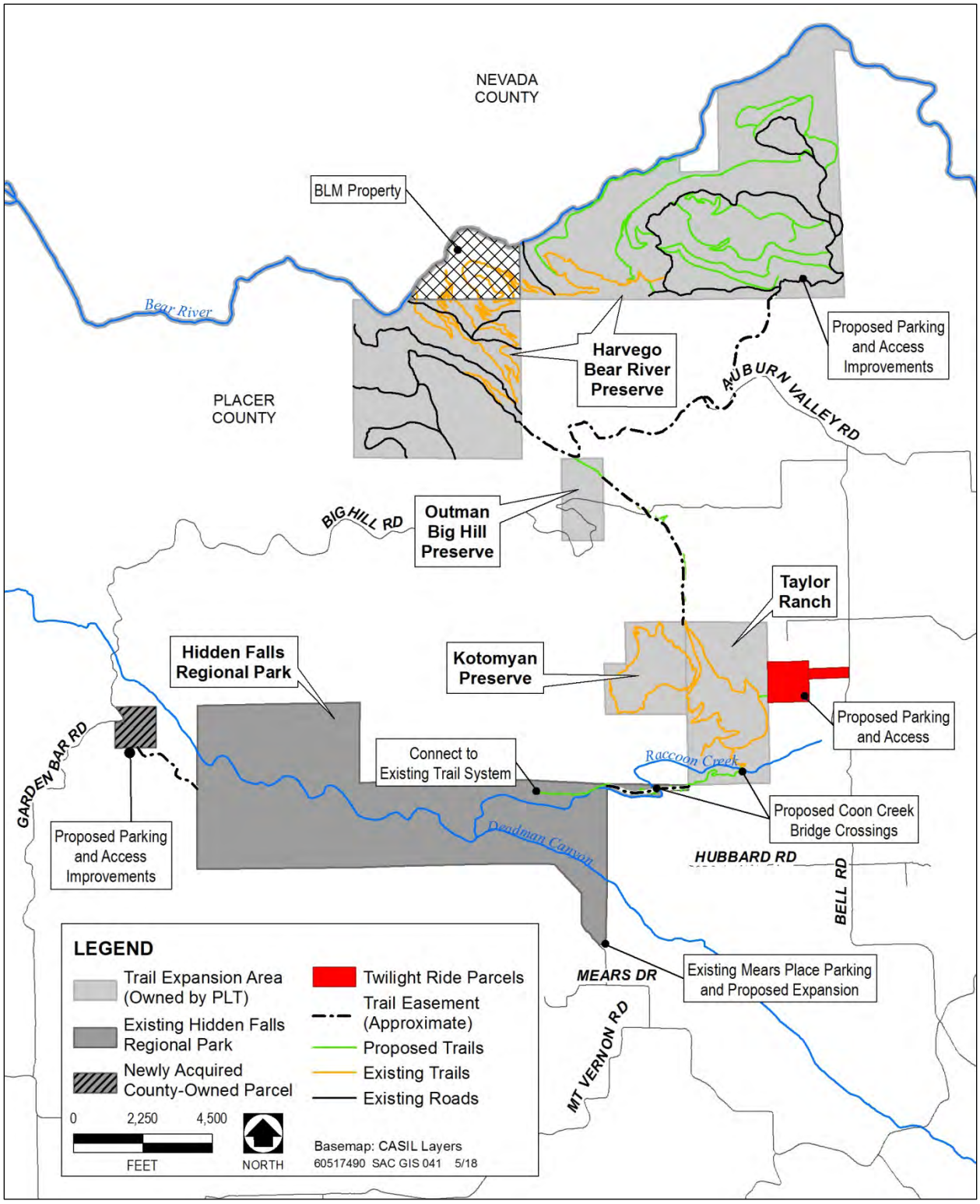


**Figure 3: Proposed Project**

## 2.3 PROJECT ELEMENTS

Placer County has collaborated with the Placer Land Trust to preserve approximately 2,500 acres of open space located north and east of HFRP. These lands, as well as connecting areas directly east and west of the existing park that are owned or held in easement by Placer County would accommodate the proposed future expansion of the public trail network from the regional park up to the Bear River. Combining the 30 miles of existing trails in the park with additional existing and new trails in the proposed trail expansion areas would provide more than 60 miles of multi-use, natural-surface trails. The expanded trails network would connect to the existing trail system in the regional park via existing easements between the park and trails in Taylor Ranch and Kotomyan Preserve, with additional connections through Liberty Ranch and Outman Big Hill Preserve to future and existing trails and ranch roads within the Harvego Bear River Preserve.

The County's discretionary actions would include approval of an amended CUP covering the existing HFRP and the expansion areas, including the designated lands to the northeast, the parcel west of the existing park that was recently acquired by the County, the areas east of the park that connect to Taylor Ranch and the Twilight Ride property. This permit and the County's SEIR would cover:

- Expanding the HFRP trails network from 30 miles to approximately 60 miles through the construction of new natural-surface trails within the lands owned or held in conservation easements by Placer Land Trust and on land owned by the County or where the County has easements;
- Project-level review of proposed trail corridors and parking areas and a program-level review of other areas within the Placer Land Trust parcels where trails or other amenities may be constructed;
- Constructing two additional bridges over Raccoon Creek between the existing regional park trail network and Taylor Ranch;
- Adding parking and access area improvements, including parking and access at Harvego Bear River Preserve for access to the northern areas of the expanded trail network, minor changes to the planned parking and access from Garden Bar Road to the west of the park, the addition of up to 25 more parking spots at the Mears Place entrance, and the potential addition of a parking/trailhead area with up to 100 vehicle and 40 equestrian parking spaces on the 50-acre Twilight Ride property;
- Allowing a limited number of privately-owned parking areas adjacent to the park boundaries with direct gate access into the park;
- Improving off-site roads which would provide access to new parking areas; and
- Identifying and clarifying the type and size of events and facilities allowed within the existing Hidden Falls Regional Park and expansion areas.

### Trails and Amenities

The trails would be used for hiking, bicycling, and horseback riding, and would connect to existing County trail easements or County-owned property, as well as areas either owned or held in conservation easement by the Placer Land Trust. As with the existing park areas, no motorized vehicles (e.g., motorcycles and off highway vehicles) would be allowed within the trails expansion area. The use of motorized vehicles in special circumstances, such as for maintenance, emergency response, accessibility assistance, and/or electric bicycles (eBikes), will be regulated through Article 12.24 et seq. of the Placer County Code ("Public Recreation Areas"). The expanded trails network would include existing trails,

existing roads and paths, and new trails based on a conceptual trail layout developed by the County and the Placer Land Trust.

The preliminary layout for approximately 30 miles of new multi-use trail construction is shown in Figure 3 and is based on each area's opportunities and constraints, including topography, drainage crossings, locations of cattle operations, and scenery. The layout may be refined further based on the results of constructability assessments and biological and cultural resources surveys. Additional trails and amenities may be developed specifically for the benefit of visitors with physical handicaps, above and beyond minimum compliance with the Americans with Disabilities Act. The park features in the expansion areas would include drinking water fountains and restrooms, on-site groundwater wells, fire suppression facilities, equestrian features (e.g., horse watering, hitching posts), picnic areas, benches, bear-proof trash receptacles, and interpretive displays. A horse barn with associated corrals and paddocks and limited horse boarding is a potential use under consideration for the Twilight Ride property.

## Bridges

The existing trails in HFRP are connected by three bridges across Raccoon Creek/Deadman Creek and rock/culvert passages and timber bridges over intermittent streams. Within the existing park boundaries, there is one additional bridge over Raccoon Creek which was analyzed under the prior EIR and is still planned for construction. To provide connectivity within the park's expanded trail network, the County plans to construct two additional bridges across Raccoon Creek in the area that connects to Taylor Ranch (Figure 3). One tributary of Raccoon Creek that lies between Hidden Falls and Taylor Ranch would require spanning with multiple culverts, box culverts, or a bridge. These bridges would provide access for pedestrians, equestrians, emergency vehicles, and small maintenance vehicles, and would be designed to minimize impacts on stream hydrology and wildlife habitat. The County would also construct foot bridges over intermittent drainages throughout the expanded trails network. The foot bridges would be designed to fit the rustic character of the surroundings and may require construction or replacement of culverts or construction of rock-lined stream crossings.

## Parking and Access

The SEIR will evaluate the feasibility of parking improvements that would make optimal use of the existing parking area at Mears Place, would create opportunities to use reservation-based parking off Garden Bar Road, and would provide new vehicle access to and parking for trail network expansion areas to the north and east. Potential on-site parking areas have been identified within the Harvego Bear River Preserve area, along with a site along Bell Road adjacent to Taylor Ranch, as indicated on Figure 3.

The SEIR will also evaluate a County proposal to issue permits to adjacent landowners who would provide overflow parking spaces to visitors, and management strategies that would electronically alert visitors to parking availability before they arrive at the site.

Planning for the proposed new or expanded parking areas will be based on evaluation of parking demands derived from existing peak period traffic surveys which identified the number of vehicles accessing the park and the number of vehicles turned away after the existing parking facility filled, and the average visit duration. However, to achieve other resource management goals, parking availability during periods of peak demand would remain limited and managed through an online reservation system, which began operation in winter of 2017.

The SEIR's traffic and parking analysis will address the effects of implementing the project with the anticipated parking supply and operation of the newly created management systems with regards to overflow parking demands and vehicle travel on adjoining streets during peak season Saturday conditions. The County will evaluate the extent to which these demand forecasts could be accommodated on-site and through parking management measures, such as the new reservation system, and extending those measures to the new parking areas.

The existing CUP for HFRP allows for an additional parking area at the western end of the park to be accessed via Garden Bar Road. The 2009 EIR contained a detailed phasing plan to develop parking in this area that began with a public access gate, connecting roadway to the existing access road, fencing and cattle guards on the access road, along with a staging area. Phase 1 also included permitting classroom sized groups to access the site through the Garden Bar entrance with an appointment so that the gate could be opened to allow entrance. The SEIR will consider additional phased improvements and management options to be implemented between Phase 1 and Phase 2. With the requirement to obtain a reservation prior to arriving at the park, unnecessary vehicle trips to the park would be eliminated, but roadway improvements may be needed to ensure public safety.

### Roadway Improvements

The SEIR will evaluate potential roadway improvements and will use the information the County has collected on traffic count data to determine Saturday peak-hour traffic volumes, current roadway capacities, intersection levels of service (LOS), design limitations, and safety issues (roadway width, design speed, and sight distance limitations) in the analysis. Proposed roadway improvements will be identified by estimating potential future traffic volumes and roadway improvements needed to accommodate visitors traveling to and from the park.

### Construction, Operation and Maintenance

The trails and other features described above would be constructed over a number of years as funding allows. Trail and bridge construction would coincide with favorable weather conditions. The trails would be constructed using a combination of methods, including both the use of small construction equipment and hand clearing of vegetation. Helicopter use may be required to access the most remote areas of bridge construction. Trail widths would vary as needed based on safety considerations and the requirement to avoid biological or cultural resources. Vegetation clearing would be scheduled outside the breeding season of migratory birds, including raptors. The proposed trail system and recreational facilities would be designed to be as low maintenance as practicable, although some regular maintenance of the trails and ancillary facilities would be required, including clearing vegetation, maintaining trails, and removing fallen trees. All operation and maintenance activities are expected to be similar to those currently undertaken within the existing park boundaries.

## 3.0 PROBABLE ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

Placer County has determined that a Subsequent Environmental Impact Report (SEIR) should be prepared to evaluate the potential environmental impacts of expanding the Hidden Falls Regional Park trails network. The SEIR will incorporate the content of the 2009 Hidden Falls Regional Park EIR and will

explain the basis for incorporating the previous EIR's conclusions regarding such topics as population and housing and mineral resources. As required by CEQA, the SEIR will describe existing conditions and evaluate the potential environmental effects of the proposed project and a reasonable range of alternatives, including the no-project alternative. It will address direct, indirect, and cumulative effects. The SEIR will identify feasible mitigation measures, if available, to reduce potentially significant impacts. Based upon preliminary environmental review, it was determined that the proposed project would not result in significant impact to the following areas and, therefore, these areas do not require further analysis in this SEIR: Population, Employment and Housing, Mineral Resources, and Recreation.

The following environmental effects will be evaluated in the SEIR:

**Aesthetics.** This section will assess the potential impacts of added parking facilities and additional trails on scenic vistas, scenic resources, visual character, and light and glare. This section will use photographs of existing public views and descriptions of proposed parking facilities to evaluate impacts. The impact evaluation will describe how the County's thematic/stylistic design guidelines for Hidden Falls Regional Park will guide the design and selection of rustic amenities to reduce their aesthetic impacts.

**Agriculture and Forestry.** This section will address potential impacts on Prime Farmland, Unique Farmland, and Farmland of Statewide Importance; conflicts with existing zoning or Williamson Act contracts; and conversion of farmland or forest land to other uses.

**Air Quality.** The air quality analysis will evaluate potential air pollutant emissions from trail and parking lot construction and expanded trail visits using current Placer County Air Pollution Control District methods and will incorporate the air quality and climate change goals, projections, and impact findings from the 2013 General Plan Update.

**Biological Resources.** The biological resources section will address potential impacts on vegetation, wildlife habitat, special-status species, sensitive natural communities including wetlands, and trees/oak woodlands. Placer County recently conducted and is planning additional biological surveys (reconnaissance-level wildlife field surveys, special-status plant surveys, and wetland delineation) and a tree assessment in the proposed improvement areas.

This section will assess both direct impacts from construction and indirect effects from long-term trail use, visitation, and maintenance. It will also address potential impacts on wildlife migration corridors and any potential conflicts with the provisions of the proposed *Placer County Conservation Plan*.

**Cultural Resources.** This section will evaluate potential impacts on archaeological, historical, paleontological, and tribal cultural resources within the trail corridors and proposed parking areas. The County is conducting cultural resources surveys, including a records search and an archaeological pedestrian survey of the proposed new trails, parking areas, and road improvement areas. The County will also be conducting consultation with Native American Tribes in compliance with AB 52.

The assessment will describe the cultural setting, known resources, and methods used to identify and assess impacts; will evaluate potential impacts; and will present the mitigation measures that would be used during construction to reduce cultural resource impacts to less than significant.

**Geology and Soils.** This section will assess the potential geological and soils impacts of trail and parking area construction, including from grading and potential roadway improvements. The soils evaluation will

evaluate whether trail, bridge, or parking lot construction could result in substantial soil erosion, and will describe how the trails and bridges will be designed to minimize erosion to the extent practicable. The seismic evaluation will identify the potential for unstable soil or dangerous geological conditions (e.g., landslides, earthquakes) and will describe how those risks would be minimized by accounting for geology and soil factors in the structural design, construction, and operation of the trails and bridges.

**Greenhouse Gas Emissions.** This section will enumerate the project's greenhouse gas emissions based on additional visitor trips, construction and long-term operation and maintenance of the expanded trail network and the impact of those emissions on adopted plans, policies, or regulations to reduce greenhouse gas emissions.

**Hazards and Hazardous Materials.** This section will address potential impacts from the transport, use, or disposal of hazardous materials or releases of hazardous materials during construction and operations. The hazards evaluation would also evaluate potential exposure of trail users and any new structures to wildland fires.

**Hydrology and Water Quality.** This section will assess potential impacts on hydrology and water quality, including the potential for trail construction and the new bridges to affect Raccoon Creek water quality or hydrology, including from erosion or from restricting flow during high flows. This section would also evaluate whether installing wells for drinking water supply would deplete groundwater supplies.

**Land Use.** This section will evaluate the project's potential land use effects on adjacent parcels and land uses and consistency with Placer County's 2013 General Plan Update and regional plans and policies, as well as applicable habitat conservation planning currently underway as part of the *Placer County Conservation Plan*.

**Noise.** This section will evaluate potential short- and long-term noise impacts from trail and parking lot construction and ongoing use. Noise levels generated by construction equipment and trail/parking lot use will be estimated using noise modeling software and compared to County noise standards and ambient noise levels estimated based on existing land uses, including existing roadways and ranching operations.

**Public Services.** The expanded trail network has the potential to increase demands on law enforcement, fire protection, and other emergency services, such as search and rescue, beyond those of the existing Hidden Falls Regional Park. The SEIR will use updated records from law enforcement and other public services from the existing park uses to evaluate the need for public services in the expanded trail network areas and determine whether additional facilities are needed that could affect the environment during construction and operations.

**Traffic and Transportation.** This section will identify potential traffic (and parking) impacts based on existing conditions, the selected configuration for access roads and parking areas, and County level of service (LOS) standards. This evaluation will provide a quantitative assessment of increases in traffic levels and potential adverse circulation effects at intersections, known parking locations, and potential future parking locations. This section will also evaluate circulation and safety of trail users where trails cross roadways.

**Utilities and Service Systems.** This section will address potential impacts of adding drinking water supply, restroom facilities, and storm water drainage to serve the project area. It will also evaluate

potential impacts on landfill capacity and how Placer County would comply with solid waste laws and regulations.

**Cumulative Impacts.** Implementation of the proposed project could potentially result in significant impacts to the above resource areas. When taken together with the effects of past projects, other current projects, and probable future projects, the project's contribution to the overall cumulative effect of all these activities could be considerable and will be evaluated in the SEIR.

**ALTERNATIVES TO BE EVALUATED IN THE EIR.** In accordance with the State CEQA Guidelines (14 CCR Section 15126.6), the SEIR will describe a range of reasonable alternatives to the proposed project that are capable of meeting most of the project's objectives, and that would avoid or substantially lessen any of the significant effects of the project. The SEIR will also identify any alternatives that were considered but rejected by the lead agency as infeasible and briefly explain the reasons why. The EIR will provide an analysis of the No-Project Alternative and will also identify the environmentally superior alternative.

# 4.0 PROJECT APPROVALS

Anticipated approvals and permits required prior to construction are listed below. All other regulatory framework will be discussed in the applicable sections of the SEIR.

## 4.1 APPROVALS REQUIRED BY PLACER COUNTY

The proposed project would require the following Placer County actions:

- Certification of the SEIR for the Hidden Falls Regional Park Trails Network Expansion Project and adoption of the Mitigation Monitoring and Reporting Plan;
- Conditional Use Permit Modification; and
- Grading Permit

The access-roadway improvements and utilities required to accommodate the expanded trail network may also require encroachment permits from the County Department of Public Works and Facilities and wastewater permits from the County Environmental Health Division.

## 4.2 APPROVALS ISSUED BY OTHER AGENCIES

The proposed project would require the following actions by entities other than Placer County:

- Clean Water Act Section 404 permit amendment for stream crossings at Raccoon Creek and other streams (United States Army Corps of Engineers);
- Endangered Species Act Section 7 Consultation (United States Fish and Wildlife Service);
- Clean Water Act Section 401 Water Quality Certification amendment (Regional Water Quality Control Board – Central Valley Region);
- Clean Water Act Section 402 National Pollutant Discharge Elimination System permit (Regional Water Quality Control Board – Central Valley Region);
- Streambed Alteration Agreement amendment for stream crossings (California Department of Fish and Wildlife); and
- Encroachment permit for any construction within the floodplain of Raccoon Creek (Central Valley Flood Protection Board).

2018 Scoping Summary Report

Subsequent Environmental Impact Report
2018 Scoping Summary

# Hidden Falls Regional Park Trail Network Expansion Project

Prepared for:

Placer County

AECOM

July 2018

Subsequent Environmental Impact Report
2018 Scoping Summary

# Hidden Falls Regional Park
# Trail Network Expansion Project

Prepared for:

Placer County

Contact:

Lisa Carnahan


Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

Ken Koch
Senior Project Manager
916/414-5800


AECOM

July 2018

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# ACRONYMS AND OTHER ABBREVIATIONS

| | |
|---|---|
| ASRA | Auburn State Recreation Area |
| Caltrans | California Department of Transportation |
| CEQA | California Environmental Quality Act |
| County | Placer County |
| EIR | Environmental Impact Report |
| MAC | Municipal Advisory Council |
| mph | miles per hour |
| NID | Nevada Irrigation District |
| NOP | notice of preparation |
| NPDES | National Pollutant Discharge Elimination System |
| PG&E | Pacific Gas & Electric Company |
| PRC | Public Resources Code |
| proposed project | Hidden Falls Regional Park Trails Network Expansion Project |
| RWQCB | Regional Water Quality Control Board |
| SEIR | Subsequent Environmental Impact Report |
| SR | State Route |

# INTRODUCTION

Placer County (County) is the lead agency for the Hidden Falls Regional Park Trails Network Expansion Project (proposed project), and will prepare a subsequent environmental impact report (SEIR) for the proposed project to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.). An environmental impact report (EIR) was previously certified in 2009 (State Clearinghouse No. 2007062084) to establish Hidden Falls Regional Park. The County is preparing an SEIR because the County is proposing to expand the Hidden Falls trails network into areas currently owned by Placer Land Trust (or where Placer Land Trust holds a conservation easement) and where the County either has existing trail easements or owns nearby parcels.

The County issued a revised notice of preparation (NOP) (Attachment A) of an SEIR for the proposed project on June 4, 2018, and held a public scoping meeting in Auburn on June 14, 2018. The revised NOP was released because the project description has been amended to reflect the potential use of 50 acres located at 5345 Bell Road in Auburn (Assessor's Parcel Numbers 026-110-012 and 018) (the "Twilight Ride property") for additional trailhead parking (approximately 100 automobile and 40 horse trailer spaces), as well as potential horse-boarding. The revised NOP was distributed using the County's mailing lists and was noticed in the *Sacramento Bee* and *Auburn Journal*. The State CEQA Guidelines provide a 30-day period for responsible and trustee agencies to respond to an NOP and provide specific detail about the scope and content of the environmental information that must be included in the EIR (Section 15082[b]). CEQA also requires lead agencies to hold at least one scoping meeting if a project is of statewide, regional, or areawide significance (Section 21083.9[a][2]).

The purpose of this report is to document the SEIR scoping process that was conducted by Placer County and to identify the comments received during the 30-day public scoping period (June 5–July 6, 2018). The County will consider all comments received during the public scoping period. This report documents the scoping process that occurred and identifies the comments received, topics of concern, and issues that will be addressed in the SEIR.

# SCOPING MEETING

Placer County held a public scoping meeting to inform interested parties about the proposed project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the SEIR. This meeting was held 6–8 p.m. Thursday, June 14, 2018, at the Placer County Government Center Meeting Room, 3091 County Center Drive in Auburn. More than 100 interested individuals attended the meeting. Attendees were asked to sign in (see sign-in sheets in Attachment B) and provide contact information if they wished to receive future updates on the project.

Andy Fisher, parks administrator for the Placer County Department of Facility Services, welcomed attendees and discussed the meeting format. He explained that this was the second scoping meeting and stated that the draft EIR would be published in the fall. Mr. Fisher discussed the location of the project and Hidden Falls Regional Park history and visitation, including development and implementation in 2018 of the park's reservation system. He noted that the County initiated the Parks and Trails Master Plan in 2017 and conducted surveys with user groups, finding multiuse trails to be the most desired features. Mr. Fisher explained that after scoping was conducted in 2017 for the proposed park expansion, the County entered an agreement to purchase 50 acres of land on the Twilight Ride parcel off of Bell Road; all purchases are through Placer Legacy from willing sellers; real estate

negotiations are to be done in private, and that was the case here. Now that the purchase agreement is in place, the County is restarting the scoping process for the proposed project, with the new parcel included.

Lisa Carnahan, senior planner for the County's Parks Division, delivered a presentation (Attachment C) explaining changes to the project since issuance of the prior (2017) NOP and details on the maps. She explained the project's Phases 1a, 1b, and 1c and the number of vehicles, horse trailers, and parking spaces in each phase.

Ms. Carnahan stated that all resource areas listed in the CEQA Checklist would be addressed in the SEIR except Population and Housing, Mineral Resources, and Recreation. The presentation covered the next steps in the CEQA process (draft subsequent EIR, public review for 45 days including a public hearing, final subsequent EIR, and Planning Commission hearing in early 2019) and upcoming opportunities for public comment.

The presentation was followed by public comments. Meeting attendees who wished to speak were asked to sign in and to state their name before giving their statements. A total of 35 speakers gave public statements. The speaker sign-in sheet is presented as Attachment D.

## PUBLIC COMMENTS

**Lorrie Lewis,** 6245 Wise Road. Ms. Lewis expressed concern that the same department is working on both parking and carbon footprint reduction, when the park brings vehicular trips that generate greenhouse gases. She also expressed concern that Placer Legacy is supporting recreation, not farming. Ms. Lewis stated that Placer County is wealthy in trails and advocated putting the project proposal on hold until a better location along State Route (SR) 49 could be located. She supports Placer Legacy's efforts to preserve land, but does not support this proposal for recreation.

**Sue Hall,** 4990 Bell Road. Ms. Hall has lived on Bell Road since 1973. She said that the area has changed substantially and that her daughter used to ride horses on the roadway, but the amount of traffic makes that dangerous now. Ms. Hall asked who is paying for the rangers stationed at the park. She stated that the County previously alienated residents along Mears Road (near the current park), and that she is concerned about fire hazards, garbage, and theft. She called the project a new playground to break into houses and stated that it is wrong to exploit the land for use by out-of-towners. Ms. Hall asked whether the County charges for parking. *[Mr. Fisher responded that there is a charge on weekends and holidays.]*

**Teena Wilkins,** 8220 Hubbard Road. Ms. Wilkins represented Vina Castellano Winery. She said that she would benefit from the proposed parking lot because people who get lost looking for the park come to the winery, but that she opposes the project because the County is taking farmland that then cannot be farmed. Ms. Wilkins wants to see agriculture in the ag zone, and said that the project will change country life. She said that she likes Placer Legacy, but that in reality, it steals from people. She said that that the park does not have enough rangers to protect people and the park and that the park's bridges have graffiti. Ms. Wilkins stated that she is not opposed to people coming into the ag zone, but is opposed to this proposed use.

**Mike Lutzker,** 4985 Bell Road. Noting that he has a friend who lives on Mears Road, Mr. Lutzker stated that the project will alienate another neighborhood and urged the County to learn from its mistake. He said that Lone Star and Cramer Roads cannot handle the traffic, that an accident is waiting to happen, and that SR 49 does not need an increase in traffic. He also said he spoke with an appraiser, who stated that the County is overpaying for the property. He expressed concern that property values could drop 25–30%. Mr. Lutzker said that he stopped taking his horses to Hidden Falls Regional Park because of break-ins to his truck. He said that hikers use the park, and that the parking lot would not affect the Board of Supervisors or constituents who voted for them, and asked where the money is coming from to build the parking lot.

**Patrick Ferrera,** 4609 Bell Road. Mr. Ferrera said that he is third generation and that he has seen adverse changes on Mears Road with no-parking signs. He stated that access to the parcel is subject to travel on blind curves and that crossing SR 49 with a horse trailer would be too dangerous.

**Ty Rowe,** 1134 High Street/9790 Superior Town Road, Lincoln. Mr. Rowe leases land in the area. He expressed the opinion that opening up area properties and land will ruin the rural setting. Noting that no one at the meeting had spoken in favor of the proposed project, he asked the County to think about locals. He stated that the only park users he sees come from out of the area. He expressed dismay that the County regulates and requires mitigation for agricultural businesses, but now allows other uses without restrictions.

**Dayna Green Burgeson,** 9911 Quail Hill Drive. Ms. Burgeson identified herself as a 35-year resident of Placer County. She said that Hidden Falls Regional Park is one of the best things that ever happened to the county and that she is proud of what the County has done. Ms. Burgeson stated that both she and her son use the park frequently, and that the park needs additional access points. She stated that she is a registered dietician who treats obesity, that providing access for outdoor recreation is important, and that Hidden Falls Regional Park is very important for community health. Ms. Burgeson stated that many people who live nearby do not use the park or want to use it for themselves. She mentioned that she does not see the "riffraff" mentioned by other people, but does sees families and equestrians. Ms. Burgeson commented that this is one of the most polite groups of park users she has ever seen.

**Keith Wenger,** 4455 Gambah Drive. Mr. Wenger stated that he is a businessman who lives on the corner on Gambah Drive and Bell Road. He said that he has lost his mailbox four times and that his wife is scared to pick up the mail because of existing traffic. Mr. Wenger identified fire and traffic as concerns and stated that the roads cannot support additional traffic.

**Richard Lewis,** 6245 Wise Road. Mr. Lewis said that he came from Oakdale and asked the County to hold scoping meetings later in the day because it is difficult to arrive on time. *[Mr. Fisher asked the audience what meeting time they would prefer; the consensus was 6:30. This will be the start time for the next meeting.]* He asked whether the EIR will include other adjacent properties. *[Ms. Carnahan stated that the EIR will address them at a high level, and that if those properties are proposed for use in the future, additional environmental review will occur and a use permit will be required.]* Mr. Lewis stated that he attends monthly meetings at the Municipal Advisory Council (MAC) and that it took the County a long time to respond. He asked whether the County will be liable if people are injured using adjacent property, considering that people have established unofficial carpooling areas from which to reach Hidden Falls from other areas. Mr. Lewis stated that this issue had not come to the MAC before and expressed his concern about bringing the issue up right before approval. *[Mr. Fisher stated that the project has been to the MAC once with the original project description, and the current proposal will go back to the MAC.]*

**Stacy Dalton,** 10245 Ranch Road. Ms. Dalton moved to Auburn in 2004 after looking all over the state. She said she chose to move to Ranch Road, off Bell, because it was not close to the recreation area. Ms. Dalton stated her concern that changing the local land use affect people by allowing a lot of new people to come in. She said that she supports parks, noting that her brother is a ranger, but that monitoring of resources needs to be addressed. Ms. Dalton noted that at Lake Clementine, people have stayed late and gotten lost, and she asked whether the County has the resources to address this concern at Hidden Falls. She noted that the park is being marketed to people from all over the state, and she is concerned about a changing a land use without monitoring resources.

**Frank Prach.** Mr. Prach reported that his company, R5 Property Investments, would be closing escrow soon on the golf course, and stated that he will oppose and fight access to the park through the golf course any way he can, including installing a gate. Mr. Prach stated that Auburn Valley Road Homeowners Association will spend hundreds of thousands of dollars to improve the road as part of the deal. He stated that he is concerned about an increase in crime and will oppose anything that will affect the golf course.

**Tom Nielay,** Sisson Lane. Mr. Nielay stated that the EIR is vague about access to parking at the Harvego Preserve, and he asked how users will get access to this area for parking. *[Mr. Fisher clarified that the County has not yet published the EIR, and Mr. Nielay responded that this comment then applies to the NOP.]* Mr. Nielay suggested that the County consider a trolley system similar to the one used at Muir Woods.

**Judith Isaman,** 4985 Bell Road. Ms. Isaman expressed concerns about the Board of Supervisors vote for additional access. She referred to the May 22 Board of Supervisors agenda and said using $400,000 from the tree preservation fund to help purchase land is ironic. Ms. Isaman cited noise, litter, and illegal parking as concerns and asked whether the current model is good for the community. She said it is difficult to align with the vision of the Board of Supervisors in light of impacts on local residents. She asked the County to consider current zoning and noted that people move to the area for a reason. Ms. Isaman said that Bell Road is part of a very long driveway to residents' homes, not a thoroughfare. Placer County realtors may not disclose the future use—

neighbors may donate property to the park. Ms. Isaman urged the County to work with residents instead of spending $1.2 million now.

**Bart Ruud,** 10800 Cramer Road. Mr. Ruud identified himself as a 70-year resident. He asserted that planners don't care and that the planning commissioners should have attended the scoping meeting so they would take the information back to the Board of Supervisors. Mr. Ruud stated that he has lost trust in government and expressed the opinion that the County has already made its decisions and that scoping is just for show. He explained that the neighbors have established an ad hoc group, being called Protect Rural Auburn, that is working with other local groups. He stated that the group is not being heard and expressed dismay that a representative of County Supervisor Jennifer Montgomery was not at the scoping meeting. Mr. Ruud stated that a rural neighborhood will be ruined because of urbanization, that the mitigation implemented at Mears Road is a bad model, and that the same effects will occur at Twilight.

**Charley Smith,** 3782 Bankhead Road, Loomis. Mr. Smith stated that 4 years ago, he tried to get the Board of Supervisors to buy his ranch in Lincoln to connect to the park. The ranch is on McCourtney Road, accessible from Hidden Falls Regional Park multiple ways. However, discussions about the property have fizzled. Mr. Smith said that if the County wants park access, it should go west, and it could have trails down Coon Creek.

**Judi Magaw,** 4870 Wise Road. Ms. Magaw expressed concern about traffic, saying that people drive too fast. She opposes improving the roads because doing so will cause people to drive faster. Ms. Magaw stated that traffic counts were only done a couple of times and the California Highway Patrol is not in the area. She used to ride at Hidden Falls but finds it too dangerous now. She stated that the County created a beautiful structure but doesn't have a way to enforce speeds, and accidents will happen. She expressed concern that Garden Bar Road will be a freeway and asked who will slow it down.

**Erica Houston,** 11080 Cramer Road. Ms. Houston expressed her agreement with prior comments before saying that she wanted to add a younger perspective. She said that she has three young children and many friends in the area, but that they never go to Hidden Falls Regional Park. Ms. Houston said that people go to the park based on advertising in other areas, and that locals do not use the park. She commented that on SR 49, a left turn onto Cramer Road is dangerous as is, and that out-of-towners with horse trailers will be an issue because there is no center lane. Ms. Houston said that she cannot get her mail and that she is rear-ended when she turns into her parking lot. She expressed concern that the homeless community will go to the area, including her 26 acres.

**Nathan Giguiere,** 6215 Viewridge Drive. Mr. Giguiere is on the board of the Auburn Valley Homeowners Association. He said that two groups are interested in the project—the local community and groups that want park access—and that the EIR should consider this. Mr. Giguiere said that if all other recreation areas/trails are deemed overused, the project may be justified; however, the reason for the project should not be just that the County owns the property. Mr. Giguiere stated that the County should consider the regional availability of the American River. He said that Hidden Falls Regional Park is beautiful, but that the County is in reactionary mode and should change to management mode to get the Mears Road area under control. He said that the County had positive intent when it added 1,200 acres to the park, but that the decision has consequences and the County should address issues with the original park first. Mr. Giguiere praised the online reservation system, but stated that neighbors attended the scoping meeting because old issues have not been fixed. He stated that the County will have residents' support if it indicates how it will fix those issues and manages the situation as a community, without rushing.

**Mark Hoffman,** 10380 Blue Heron Court. Mr. Hoffman said that, as stated by many other residents, he believes the proposal to use Twilight Ride for access is a bad idea because of traffic and public safety, and that this would be enough reason to abandon the plan. He said that more access is indeed needed for Hidden Falls, but that a buffer zone needs to be established to avoid disturbing residences. He stated that the Lincoln property seems like an ideal solution. Mr. Hoffman said that because Hidden Falls is a regional park, not a state park, it should be for the benefit of the region, not for people from the Bay Area, Stockton, and Yolo County. He has a horse property and would like to ride his horse up Bell Road to access the park. Mr. Hoffman said that Twilight would be great, but he does not want to trailer his horse and make reservations and pay for parking. He asked what provisions the County may give to regional residents.

**Delana Ruud,** 10800 Cramer Road. Ms. Ruud identified herself as a lifelong resident of the area, on 160 acres. She said that her family has been in the area for more than 100 years. Ms. Ruud said that she was not notified of the Board of Supervisors agenda item on May 22 (the purchase). She expressed disappointment that $558,050 from the open space funds reserve was used for a parking area. Ms. Ruud stated that the County should obtain a legal opinion on whether it can legally take these funds for parking. She said that the opinion should not come from Placer County attorneys because they have made costly mistakes over the years, such as the past decision regarding the power sale to Pacific Gas & Electric Company (PG&E). Ms. Ruud expressed her objection to the value of the property, stating that it is too expensive at $22,000 per acre; she believes it is not worth more than $2,000 per acre. She stated that the local roads can barely handle the existing traffic. She noted that Cramer Road has three blind curves and described accidents experienced in the area, and stated that out-of-towners are not familiar with the roads. She urged improving the Cramer and Lone Star Road turnoffs from SR 49 before doing anything else because half a dozen fatalities have occurred in recent years and more accidents could occur. Ms. Ruud stated that the Mears Road area has been decimated by the parking lot, with problems such as drug use and littering. She said that two all-terrain vehicles were stolen and that a resident found people, possibly homeless, in his barn using the shower. She cited the potential for fire and said that the Santa Rosa Fire could happen here. She expressed concern about traffic from a 100-car lot, with the park open all year. She said she does not take her dog on a leash to get the newspaper, and now hundreds of cars travel along Cramer Road. Ms. Ruud asked what the benefit of the project would be to the Lone Star area and urged the County to deny the purchase of the property.

**Jackie Caswell,** 6599 Curtola Ranch Road. Ms. Caswell stated that her 100 acres back up to the Harvego Preserve. She said that when docents take people hiking, people wander off and disturb the wildlife. Ms. Caswell said that “land trust” means “taking care,” and that trust is not about making money and giving park a name. She said that she is ashamed of Placer Land Trust.

**David Lee Fraser,** 9220 Cramer Road. Mr. Fraser stated that he has lived on Cramer Road since 2013, in the “house of our dreams,” but has just now found out about the proposed parking lot. He said he had not received any literature from the County. Mr. Fraser expressed concern about the potential for camping, picnic tables, bike rental, and other facilities right at his back door.

**Greg Taricco,** 5751 Johnson Drive, Lincoln. Mr. Taricco stated that he owns 41 acres bordering the existing park, and that Placer Legacy has been a poor neighbor. He said that when he moved to the area in the early 1990s, there was a cattle gate at the park, where he rode, but that weeks after the property was turned over to Placer Legacy, the gate was removed and replaced with a sign saying “County property—no access.” Mr. Taricco asked why a permit fee is necessary to access the park. He stated that the access road is narrow, and that the back gate was residents’ emergency exit plan until the County made it clear that they were not to use it. He questioned the

idea that the County would want him to drive 8 miles to go down Mears Road. Mr. Taricco stated that the County has mismanaged the park and gutted cover for wildlife, driving it into congested areas, and that proper supervision and management is lacking. Mr. Taricco stated that he has a view of a trail within 20 feet of his fence line, and that all night long from May to September, mountain bikers come down in the dark with headlights because no one enforces the rules. Mr. Taricco stated that the County needs to find the middle ground with people in the meeting room and address their best interests, rather than hikers, mountain bikers, and people from the Bay Area.

**Kevin Borden,** 10300 Blue Heron Court. Mr. Borden stated that he has a ranch in the area. He stated his opinions that Hidden Falls Regional Park was shoved down residents' throats; that the County then realized the park was big enough to have caused issues; and the County is now forcing the current project on Bell Road residents. Mr. Borden stated that he used to work for local law enforcement, and that improving the road will cause speeds to increase and will bring in more people from the Bay Area. He stated that the homeless shelter at DeWitt will create a nuisance. Mr. Borden urged the County to look at demographics and who uses the area, and not make a quick decision.

**Jean Piette,** 5395 Bell Road. Ms. Piette stated that the project would make her neighbor a parking lot and would affect local residents' lifestyles and homes. She said that the problem started at Mears Road and that a new EIR should be done for the new area, rather than a supplemental EIR tagged on to Mears. Ms. Piette stated that there was no prior notice of the land purchase. She stated that the report she has reviewed is flawed and totally unacceptable and should not go forward. Ms. Piette urged the County to cease and desist, yet the County has already moved forward and is in escrow.

**Ginny Barnes,** 5355 Bell Road. Ms. Barnes expressed concern about the potential for the proposed project to result in vandalism, graffiti, traffic, constant noise, and trash. She stated that she did not receive notice and had no idea of the project.

**Pam Hart,** 10395 Blue Heron Court. Ms. Hart stated that she has resided near Bell Road for 40 years. She stated that the only positive of this purchase of the property would be to trade it for access to State Route 49. Ms. Hart believes Placer Land Trust could be taking on a terrible risk. Placer Legacy would be found guilty of allowing access like PG&E was found guilty of the Sonoma Fire. Ms. Hart asked why Placer Legacy would allow a myriad of trails in a habitat protection program. She attends Fish and Game meetings—officers report that homeless folks are affecting the streams. Impact is tremendous. Opening up this space would open more of the same. Ms. Hart urged the County to address this issue in the EIR.

**Linda Taricco,** 5751 Johnson Drive, Lincoln. Ms. Taricco stated that Hidden Falls is a nice place, but that the County has not taken care of it or been nice to the neighbors, citing fencing and signs to stay out of the park. She asked why neighbors are not allowed to access the park. *[Mr. Fisher responded that this is County policy.]* She expressed dismay that the County has not taken care of existing parking issues and has littered the road with "no parking" signs, and that nothing has been done to address fire hazards in the existing park. *[Mr. Fisher stated that the County established shaded fuel breaks on 120 acres; added a fire hydrant with a 12,000-gallon fuel tank; is working with the fire marshal on the Fire Risk Reduction Program; and has replaced cattle with goats in the park.]* Ms. Taricco stated that she has 6 feet of grass on her property line, and that the County chopped down trees and stacked the wood and lines trails with wood, which she called a fire hazard. She also stated that the goats are not doing any good.

**Michele Calbi,** 4984 Bell Road. Ms. Calbi stated that the County must report on the costs associated with making Lone Star and Cramer Roads and SR 49 safe for the amount of traffic expected as a result of the project. She stated that driving on Cramer Road is dangerous and that people drive faster on Bell Road than the 45 miles per hour speed limit, and asked what the County will do to handle traffic. Ms. Calbi mentioned that Lone Star Road has curves that surprise drivers. She asked how the County will control the homeless population in the area and make sure that people are out of the park. Ms. Calbi noted that fire is a serious threat in the area, but stated that visitors from Sacramento are unaware of this hazard smoke and throw items away. She asked the costs for keeping the fire and police departments on call and for providing park rangers.

**Ralph Franzen,** 6445 Fairway Court. Mr. Franzen stated that only one person at the meeting had spoken for good use. He stated that obese children are a parental program, not park use, and that the *Auburn Journal* has a monthly issue on access for hiking. Mr. Franzen said that there are a lot of opportunities for recreation without disturbing the Bell corridor. He commented that he has access to the Harvego property once in a while and asked about the County's plans for access. *[Ms. Carnahan gave an update on current plans.]* Mr. Franzen commented that the County is looking at many accesses and that the County seemingly spent a lot of money. *[Mr. Fisher explained the County's relationship to Placer Land Trust.]* Mr. Franzen stated that he has heard people come before the County asking for money for homeless people. He commented that the County is exacerbating the problem by spending $1.2 million to purchase a property while fire departments across the county need more money, and when the County's responsibility is the safety of residents and education of children.

**Wally Gaffney,** 4961 Bell Road. Mr. Gaffney expressed concern about the project's potential traffic impacts. He complained that the meeting participants had not saluted the flag despite the fact that it was Flag Day and the meeting was being held in a government building.

**Candace Morton,** 10160 Coyote Ridge Court. Ms. Morton identified herself as living off Bell Road, and said that she goes to Hidden Falls Regional Park multiple days a week, but went more often before reservations were required. Her husband helped build trails and has been involved with Placer Land Trust. She has a dog and mountain bike. She does not go to the park as much because of reservations and commercialization. She now goes to the American River Canyon, which provides access from multiple locations. Ms. Morton noted that neighbors there have access, which she identified as a selling point. She suggested changing County policy, as a compromise, to allow Hidden Falls neighbors to access the park from their property. Ms. Morton noted that the County does not charge visitors to access the park, asked why so many people need to be there, and asked why the County cannot allow numerous little access spots. Ms. Morton said that she does not park at the American River Confluence because it has too many nonlocal visitors who do not care about the area.

**Ethan Noto,** 9200 Cramer Road. Mr. Noto stated that he would be directly affected by the project. A neighbor brought him a letter that said "and more"; he asked what "more" refers to and who issued that letter. Mr. Noto expressed concern about homeless people on his property and asked who is responsible if something is stolen. He stated that a massive parking lot with massive facilities would bring massive amounts of people with massive problems, and called for the County to be aware, open, and honest. Mr. Noto expressed dismay about the potential for a massive parking lot, while saying that he understands a small one. He said that he has seen numerous accidents on Cramer Road and had a collision, and expressed the opinion that Cramer Road needs to be fixed. *[Mr. Fisher clarified that the "and more" statement was not from the County.]*

**Wally Gaffney,** 4961 Bell Road. Mr. Gaffney came back to the podium after his initial remarks and said it is 3 minutes from his doorstep to the proposed parking lot. He asked why members of the Board of Supervisors were not at the meeting. *[Mr. Fisher responded that he couldn't speak for the Board of Supervisors, but that they will be fully apprised of what is going on and will have an opportunity to hear about the project in open session.]* Mr. Gaffney asked how the Board of Supervisors would get information from the meeting. *[Mr. Fisher responded that the board will be informed through dialogue with County staff members, when the project comes before them as a board meeting item, and through the MAC's presentation. He noted that it is not uncommon that the Board of Supervisors does not attend meetings at this preliminary level.]* Mr. Gaffney asked whether the Board of Supervisors will get a recording or a meeting summary. *[Mr. Fisher stated that the board has access to the recording and all the information.]* Mr. Gaffney asked how the acreage can be changed from agricultural residential zoning to a parking lot. *[Mr. Fisher stated that the current zoning allows for a park with a master use permit or conditional use permit, but that no zoning change has been proposed. The zoning code allows a list of uses for every zoning district; some uses are allowed by right, while others need a use permit.]* Mr. Gaffney said that he has learned a lot about the project from his neighbors and that "Protect Rural Auburn" will work to stop it, and that he opposes the proposed parking lot.

*[Ms. Carnahan explained the breadth of the County's outreach to neighbors. She noted that scoping meetings are normally held during the day, in contrast with this evening meeting, and that notice of this meeting was sent to a much larger area than the typical noticing area (which is within 300 feet of a project).]*

**Judy Isaman,** 4985 Bell Road. Ms. Isaman asked for confirmation of the deadline for submitting comments. *[Ms. Carnahan confirmed that the deadline is July 6.]*

**Kirtis Newberry, 10225** Mallard Way. Mr. Newberry stated that he has lived in the area since 2015. He asked whether this meeting regarding the proposal for the growth of Hidden Falls is in the public record. *[Ms. Carnahan confirmed that the meeting is part of the public record and is being recorded.]* Mr. Newberry asked whether the last meeting was part of the public record and asked where to find the public records. *[Ms. Carnahan confirmed that the last meeting was also part of the public record and explained that all comments, including comments from this meeting and others made during the comment period, will be addressed in the draft EIR]* Mr. Newberry said that the questions from the February 2017 meeting were good and he would like to see answers to them, and stated that the County should not say they will answer the questions when they will not. *[Mr. Fisher clarified that Mr. Newberry will get a chance at the draft EIR stage. He explained that when the Twilight Ride parcel came along, the County decided to take a step back, re-release the NOP, and ask for input again and publish responses.]* Mr. Newberry expressed the feeling that he does not have a voice. He read an e-mail he sent to County Supervisor Jennifer Montgomery in response to a *Sacramento Bee* article in 2015 and the response he received. He asked when the next meeting would be and whom he should hold publicly accountable. *[Mr. Fisher responded that no date has been set. He suggested getting on the project mailing list to be informed when the document is out and see the public draft before decisions are made and the sale is finalized.]* Mr. Newberry suggested that meetings would not be as big or boisterous with more transparency.

A member of the audience asked whether the project proposal would be on the agenda at the July 10, 2018, MAC meeting. Ms. Carnahan responded that there are no plans to include the proposal on the MAC meeting agenda. Another participant asked how to get Board of Supervisors members to attend; Ms. Carnahan stated that it is up to each supervisor whether they attend the MAC meetings. After a brief renewed discussion regarding the extent to

which the County provided notice of the scoping meeting, Bart Ruud noted that he has a petition signed by more than 70 people and that he expects the number of signatures to increase.

### COUNTY WRAP-UP

Mr. Fisher thanked all for attending and being respectful. He invited attendees to introduce themselves and meet with County personnel in smaller groups, expressing how they could be more transparent.

## WRITTEN COMMENTS

The revised NOP requested that written comments be submitted at the earliest possible date, but not later than 5:00 p.m. on July 6, 2018, to Shirlee Herrington, Environmental Coordination Services, Community Development Resource Agency, 3091 County Center Drive, Suite 190, Auburn, CA 95603. This section provides a synopsis of the written comments received during the 30-day NOP public comment period, including a few comments accepted following the close of the comment period but during preparation of this scoping report. Several comment letters were received from responsible and trustee agencies as defined in Section 21069 and 21070 of the State CEQA Guidelines, and several letters were received from nongovernmental organizations and citizens.

Table 1 provides a list of persons who submitted comments on the revised NOP.

**Table 1. List of Written Comments**

| Commenter | Address and/or Affiliation | Date(s) |
|---|---|---|
| **AGENCY COMMENTS** | | |
| Andrea Buckley | Central Valley Flood Protection Board | June 14, 2018 |
| Brad Brewer, M.S., P.E., CFM, QSD/P | Placer County Flood Control and Water Conservation District | July 3, 2018 |
| Plan Review Team, Land Management | Pacific Gas and Electric Company | June 6, 2018 |
| Laura Shively | U.S. Army Corps of Engineers, Sacramento District | June 7, 2018 |
| Stephanie Tadlock | Central Valley Regional Water Quality Control Board | June 28, 2018 |
| **GROUP COMMENTS** | | |
| Maureen Henderson | Loomis Basin Horsemen's Association | July 2, 2018 |
| Matt Wetter | Folsom Auburn Trail Riders Action Coalition | July 10, 2018 |
| **INDIVIDUAL COMMENTS** | | |
| Ray Arakaki | 5809 Bell Road, Auburn | July 5, 2018 |
| Anita Baker | Yuba County Sheriff's Posse | June 17, 2018 |
| John and Ginny Barnes | 5355 Bell Road, Auburn | June 21, 2018 |
| Leslie Bisharat | 7870 Eagle View Lane, Granite Bay | June 15, 2018 |
| Eric and Wendy Boucher | 4525 Bell Road, Auburn | July 6, 2018 |
| Jo Bower | No address or affiliation provided | June 30, 2018 |
| Paula Bradley | No address or affiliation provided | June 15, 2018 |
| Steve Brown | Garden Bar Road, Auburn | June 9, June 13, June 24, and July 3, 2018 |

| Commenter | Address and/or Affiliation | Date(s) |
|---|---|---|
| Nina Burkett | No address or affiliation provided | July 6, 2018 |
| Michele Calbi | 4984 Bell Road, Auburn | Undated |
| Kristi Christianson | Newcastle | July 6, 2018 |
| Richard J. and Michele C. Couvrette | 4722 Bell Road, Auburn | July 6, 2018 |
| Dorothy and Jerry Cowan | Corner of Bell Road and Joerger Road, Auburn | July 5, 2018 |
| Helen Crawford (Mcdermott) | Nevada City | June 18, 2018 |
| Laurene Davis | 4801 Virginiatown Road, Newcastle | June 29, 2018 |
| Diane Dolley | 9300 Cramer Road, Auburn | June 13, 2018 |
| Kathryn L. Oehlschlager/ Downey Brand LLP | On behalf of Harvego Real Estate LLC | July 5, 2018 |
| Tricia Frazier | No address or affiliation provided | June 18, 2018 |
| Robert (Bob) and Louise Fry | 5401 Bell Road, Auburn | June 14, 2018; undated |
| Wally (W. Charles) Gaffney | 4961 Bell Road, Auburn | July 5 and July 6, 2018; undated |
| Wally and Lynn Gaffney | 4961 Bell Road, Auburn | June 10, 2018 |
| Jim and Jane Goddard | 11400 Lone Star Road, Auburn | June 14 and June 25, 2018 |
| Darrell and Linda Graham | Preserve Rural Placer, 4125 Bell Road, Auburn | July 3, 2018 |
| Linda Graham | 4125 Bell Road, Auburn | June 8, 2018 |
| Leslie Gray | No address or affiliation provided | June 15, 2018 |
| Nancy Halcumb | 5600 Upper Ridge Way, Auburn | June 14, 2018 |
| Sue Ann Hall | 4990 Bell Road, Auburn | June 14, 2018 |
| Pamela Hart | 10395 Blue Heron Court, Auburn | June 25, 2018 |
| Erika Hazen | Cramer Road, Auburn | June 12, 2018 |
| Joel and Erica Houston | Cramer Road, Auburn | June 14, 2018 |
| Judy Isaman | 4985 Bell Road, Auburn | July 6, 2018 |
| Kelly Jackson | Preserve Rural Placer, P.O. Box 143, Meadow Vista | July 9, 2018 |
| Jane LaBoa | 7425 Mount Vernon Road, Auburn | June 13, 2018 |
| Michael and Mary Lake | 6170 Viewridge Drive, Auburn | Undated |
| Susan and Cornelius (Eb) Lane | 11380 Lone Star Road, Auburn | July 6, 2018 |
| Gary Leeds | 4101 Monteverde Drive, Lincoln | June 30, 2018 |
| Lorrie Lewis | 6245 Wise Road, Newcastle | June 19, 2018 |
| Wendy Lumbert | Longtime homeowner, Cool | June 14, 2018 |
| Gail Maduri | 3318 Hamblen Court, Cool | June 16, 2018 |
| Larry Matz | No address or affiliation provided | June 19, 2018 |
| Bonnie and Tim McAdams | Preserve Rural Placer, 4260 Bell Road, Auburn | July 5, 2018 |
| Abbas Mehdi | 8200 Christian Lane, Granite Bay | June 14, 2018 |

| Commenter | Address and/or Affiliation | Date(s) |
|---|---|---|
| Teresa Muscarella | 11400 Cramer Road, Auburn | July 6, 2018 |
| Ron and Barbara Paitich | 5841 Bell Road, Auburn | June 15, 2018 |
| Steve and Alice Perry | 4712 Howe Lane, Auburn | June 14, 2018 |
| Dr. Jaya Perryman | 4360 Burt Lane, Auburn | July 6, 2018 |
| Diane Phillips | 24744 State Highway 49, Auburn | July 5, 2018 |
| Jean and James G. Piette | 5395 Bell Road, Auburn | June 10, June 18, and June 25, 2018 |
| Leslie Prevost | Seducente Ranch and Vineyard, Pilot Hill | June 15, 2018 |
| Paul Primmer | No address or affiliation provided | June 5 and June 14, 2018 |
| Kenneth Jon and Janet Claire Quarry | 5495 Bell Road, Auburn | July 3–4, 2018 |
| George T. Ronk II | Preserve Rural Placer, 4435 Gambah Drive, Auburn | July 3, 2018 |
| Ann Rubenstein | No address or affiliation provided | June 15, 2018 |
| Bart Ruud | 10800 Cramer Road, Auburn | June 25, 2018 |
| Delana Ruud | 10800 Cramer Road, Auburn | July 5, 2018 |
| Louis and Carol Salatino | 10111 Ranch Road, Auburn | June 11, 2018 |
| Larry and Christine Simmons | 4844 Bell Road, Auburn | June 15, 2018 |
| Charley D. Smith | 3782 Bankhead Road, Loomis | June 19 and July 2, 2018 |
| Marti Snyder | Garden Bar Road, Auburn | June 25, 2018 |
| Nicole Spencer | Realtor, 500 Auburn Folsom Road, Suite 300, Auburn | June 16, 2018 |
| Heidi Storm | No address or affiliation provided | June 15, 2018 |
| Marianne Stuart | 8312 Yvonne Way, Fair Oaks | July 6, 2018 |
| Sarah Sullivan | 4952 Bell Road, Auburn | July 4, 2018 |
| Laurie Sweeney | No address or affiliation provided | June 13, 2018 |
| Eric J. Thompson | No address or affiliation provided | June 15, 2018 |
| walkingsmooth | No address or affiliation provided | July 6, 2018 |
| Michael B. Watson | 5955 Fawnridge Road, Auburn | June 14, 2018 |
| Carolyn Weaver | 5785 Lone Star Valley Road, Auburn | July 6, 2018 |
| Keith Wenger | Imperial Mortgage & Real Estate Services, 4455 Gambah Drive, Auburn | Undated |
| Stephanie Williams and Keith Collins | Foresthill | June 8, 2018 |
| Janet Willis | 25076 China Hollow Road, Auburn | June 18, 2018 |
| Anita M. Wise | 6125 View Way, Auburn | June 14, 2018 |
| Brian Mark Wise | 6125 View Way, Auburn | June 14, 2018 |
| Rosalie Wohlfromm | 1115 Humbug Way, Auburn | June 14, 2018 |
| Jane Wurst | Rural North Auburn | July 4 and July 5, 2018 |
| Harry and Karen Wyeth | Grass Valley | June 16, 2018 |

Table 2 provides a brief synopsis of the written comments and the section(s) of the SEIR in which the County will include relevant information. The comments have been paraphrased for brevity. Many comments provided information that is not directly related to CEQA and the scope of the SEIR. This information was not included in the synopsis. Furthermore, the comments included in the synopsis may not be directly addressed in the SEIR. For example, several of the comment letters provided project suggestions that may not be addressed until project design. In addition, numerous comments expressed issues outside the purpose of the NOP including opposition to the project, inapplicable regulations, and other issues that are not included in the scope of CEQA environmental review such as project financing, liability, property values, and taxes. Copies of the comment letters are provided in Attachment E.

**Table 2. Synopsis of Written Comments**

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **AGENCY COMMENTS** | |
| **Andrea Buckley, Central Valley Flood Protection Board** | |
| The proposed project is within Coon Creek, a regulated stream under the jurisdiction of the Central Valley Flood Protection Board, and may require a permit from the board before construction. | Project Description<br>Biological Resources |
| **Brad Brewer, M.S., P.E., CFM, QSD/P, Placer County Flood Control and Water Conservation District** | |
| The proposed project has the potential to create the following impacts: (a) increases in peak-flow runoff downstream of the project area, (b) overloading of the actual or design capacity of existing stormwater and flood-carrying facilities, and (c) the potential to place structures and/or improvements in a flood hazard area. The EIR must quantify the incremental effect of these impacts and propose mitigation measures. | Hydrology and Water Quality |
| **Plan Review Team, Land Management, Pacific Gas and Electric Company** | |
| PG&E will review the proposed plans relative to its facilities in the project area and will work with the County to ensure compatible uses and activities if the project is adjacent to or within PG&E-owned property and/or easements. The California Public Utilities Commission may need to render approval under a Section 851 filing. | Project Description, Utilities, Hazards and Hazardous Materials |
| **Laura Shively, U.S. Army Corps of Engineers, Sacramento District** | |
| The proposed activities may require a Department of the Army permit pursuant to Section 404 of the Clean Water Act. An aquatic resource delineation should be completed for the project area to determine whether construction of any new facilities, trails, or bridges would result in a discharge of fill material and require a permit. | Project Description,<br>Hydrology and Water Quality,<br>Biological Resources |
| **Stephanie Tadlock, Central Valley Regional Water Quality Control Board** | |
| The commenter explains the Central Valley RWQCB's responsibility with regard to its basin plan, explains the Antidegradation Policy and Antidegradation Implementation Policy contained in the Central Valley RWQCB Basin Plan, and states that the environmental review document should evaluate potential impacts on both surface and groundwater quality. The commenter also explains the project's permitting requirements relative to the Construction Storm Water General Permit; Phase I and II MS4 permits; Industrial Storm Water General Permit; Clean Water Act Section 404 and Section 401 permits; waste discharge requirements; dewatering permit; NPDES permit; and Low or Limited Threat General NPDES Permit. | Project Description,<br>Hydrology and Water Quality |
| The commenter states that if the property will be used for commercial irrigated agriculture, the project must obtain regulatory coverage under the Irrigated Lands Regulatory Program, and explains the two options for compliance. | Land Use and<br>Agricultural Resources |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **GROUP COMMENTS** | |
| **Maureen Henderson, Loomis Basin Horsemen's Association** | |
| In February 2017, the Loomis Basin Horsemen's Association submitted a letter and read a statement expressing support for the expansion project. Providing another access point to Hidden Falls with sufficient parking will reduce pressure on the Mears Place access road and residents. Parks around the state and country are accessed through nearby residential areas, such as Annadel State Park in Sonoma County. Most members of the horsemen's association live in rural or semi-rural areas and understand the concerns voiced by project opponents, but they also believe that parcels acquired by Placer Land Trust over the years are intended for public use. Demand for open space in the region is continually increasing and there is not much purpose to acquiring lands for public use if access to them cannot be gained. | Introduction,<br>Project Description,<br>Land Use and<br>Agricultural Resources |
| **Matt Wetter, Folsom Auburn Trail Riders Action Coalition** | |
| The coalition strongly supports the proposed project, including the parking expansion and potential horse-boarding. The commenter cites several benefits: (1) reduced congestion, as adding an alternate access point would allow users to spread out; (2) alleviation of overcrowding at other area trails, especially those that allow mountain biking; (3) minimization of perceived and actual user conflicts between mountain bikers and other trail users; and (4) the potential to add natural technical trail features in the Auburn area, which needs more singletrack. | Project Description,<br>Land Use and<br>Agricultural Resources |
| **INDIVIDUAL COMMENTS** | |
| **Ray Arakaki, 5809 Bell Road, Auburn** | |
| The commenter is concerned that the park expansion and construction of parking areas will bring more traffic and unwanted people to the area, affecting the quiet and peaceful country setting. | Transportation,<br>Noise |
| **Anita Baker, Yuba County Sheriff's Posse** | |
| The commenter expresses support for the expansion, stating that Hidden Falls has her favorite riding trails and that she hopes it can expand and keep all equestrians and hikers happy. | |
| **John and Ginny Barnes, 5355 Bell Road, Auburn** | |
| The commenters state that they enjoy the quiet, views of rolling hills with cattle, and privacy, and that parking lots, roads, noise, and traffic will adversely affect these conditions, which they sought after moving from Los Angeles. They believe the project also will result in vandalism, the presence of homeless people, and sleep disruption. | Visual Resources,<br>Transportation,<br>Noise,<br>Public Services |
| **Leslie Bisharat, 7870 Eagle View Lane, Granite Bay** | |
| The commenter expresses support for the project despite sympathizing with the NIMBYs who attended the public meeting, stating that the popularity of Hidden Falls is evidence of an increasing need for more public parks and open spaces. Taxpayers depend on County government to plan for future needs while providing reasonable mitigation for negatively affected landowners. The commenter believes that spreading the impacts of traffic, parking, and access to more locations in conjunction with the park expansion makes sense. | Transportation,<br>Public Services and Utilities |
| **Eric and Wendy Boucher, 4525 Bell Road, Auburn** | |
| The commenters express their opposition to the proposed project, citing unacceptable traffic in and out of Hidden Falls, winding roads, blind corners, and numerous accidents in the area. They are also concerned about the possibility of theft and forest fire. | Transportation,<br>Public Services,<br>Hazards and Hazardous Materials |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| The commenters question why people should not be redirected 20 minutes down the road to the Confluence, instead of demolishing homes to build a parking lot for Hidden Falls, to protect the rural lifestyle of residents on Bell Road and other surrounding roads. | Introduction,<br>Project Description |
| The commenters request that the County consider the offer made by a participant at the public meeting to sell a piece of his land to provide parking and facilities at the bottom of Hidden Falls. | Alternatives |
| **Jo Bower, no address or affiliation provided** | |
| The commenter, an equestrian, expresses her support for the project. | NA |
| **Paula Bradley, no address or affiliation provided** | |
| The commenter, an equestrian, expresses her support for the project, stating that she drives a fair distance to ride at Hidden Falls and that the parking is not adequate for the number of arriving trailers. | Project Description |
| The commenter states that the park's trail use rules should include provisions to reduce hiker-equestrian contact, especially at tight or potentially dangerous locations, and that increasing the park's acreage would reduce potential conflicts. | |
| **Steve Brown, Garden Bar Road, Auburn** | |
| The commenter expresses concern about the potential for public access to the proposed parking lot via Garden Bar Road before the roadway is widened, stating that introducing additional traffic under current road conditions would put both park visitors and local residents at risk. | Project Description,<br>Transportation |
| The commenter asks for confirmation that park access via Garden Bar Road under current road conditions will be limited to 25 vehicles per day (no trailers or RVs) by reservation only, with no in and out privileges, and only on weekends and holidays, and asks how this will be managed on-site—perhaps with an attendant posted at the park. He expresses concern that publicizing access via Garden Bar Road will cause the public to arrive without reservations. | Project Description |
| The commenter recommends posting a sign on northbound Garden Bar Road at both intersections with Mt. Pleasant Road stating "No Access to Hidden Falls without Reservation" to help eliminate traffic increases. He also suggests eliminating "classroom size" access as it is too vague and could result in too many visitors. | Project Description,<br>Transportation |
| The commenter suggests reducing the cost of reservations for Placer County residents or increasing reservation cost for non-county residents. | Project Description |
| **Nina Burkett, no address or affiliation provided** | |
| The commenter, an equestrian, expresses her support for the project, stating that the expansion would be an asset to the community and could help generate more income for the area. | NA |
| **Michele Calbi, 4984 Bell Road, Auburn** | |
| The commenter requests clarification of the relationship between Placer Land Trust and the County, citing a burden on county taxpayers for a "nice to have" project. She asks about the project's expected expenses and asks who will pay the costs of project construction (bridges over Raccoon Creek, parking lot, entrance/exit accessibility). She wants to know whether a grant is involved and what the tax burdens will be. She asks whether there is a contingent liability associated with possible property value loss for residents living near the park. | Project Description |
| The commenter asks the name and qualifications of the consulting firm, and whether the same consultant was used for the Mears Road project; what payments were previously made and will be made to this consultant; the consultant's relationship to Placer Land Trust; and the process (bid or no bid) and reason for selecting the consultant. | Report Preparers |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| The commenter is concerned about traffic safety on Lone Star, Cramer, and Bell roads and asks whether the County will take out liability insurance, taxpayers will be required to pay for lawsuits in case of accidents, or the County will repair the roads. She asks the costs of upgrading the roads and whether these costs will be paid by taxpayers. | Project Description, Transportation |
| The commenter is concerned about the potential for visitors to cause fires and asks that substantial firefighting equipment be ready nearby. She also states that a significant increase in loss and trespassing is expected, and asks how the County will prevent the homeless from camping in the area and using the free showers. | Project Description, Public Services and Utilities, Hazards and Hazardous Materials |
| The commenter asks what construction equipment will be used, how construction traffic will be minimized, what hours construction will occur, and who will clean the roads when garbage is tossed from construction trucks. | Project Description, Transportation |
| The commenter asks how often refuse will be removed, the number of receptacles to be installed, and associated costs and whether additional refuse trucks will travel in the area. She also asks whether the parking lot will have a gate, the hours of parking lot operation, and whether a reservation system will be used, along with its cost. | Project Description |
| The commenter asks whether another location would be more appropriate and whether the County has considered purchasing the property of the person at the public meeting who offered his property. She asks whether a horse trail and hiking trail from a parking lot on SR 49 could work, with a shuttle from the parking lot and a very small park entrance (without parking) on Bell Road. She asks about using the money for a reservoir and suggests creating a small resident committee to assist with the project. | Alternatives, Project Description, Transportation |
| **Kristi Christianson, Newcastle** | |
| The commenter states that with Hidden Falls, the County has preserved a beautiful piece of what the area once was. While sympathizing with residents about traffic, she states her support for expanding Hidden Falls and saving a natural area for future generations. | Project Description |
| **Richard J. and Michele C. Couvrette, 4722 Bell Road, Auburn** | |
| The commenters are concerned that the quiet environment will be replaced by a lot more traffic and rude people, making Placer County like San Jose, and that the County is sending a message that people who prefer a rural lifestyle are not wanted. | Transportation |
| **Dorothy and Jerry Cowan, corner of Bell Road and Joerger Road, Auburn** | |
| The commenters oppose the proposed parking lot on Cramer Road. Many cars have gone through their fence into their yard, drivers often go through the stop sign at their corner without stopping, and several accidents have occurred, and out-of-towners accessing the parking lot will make conditions worse. They also are very concerned about fire danger. | Transportation, Public Services and Utilities, Hazardous Materials and Hazards |
| **Helen Crawford (Mcdermott), Nevada City** | |
| The commenter, an equestrian, expresses support for the project. She notes that parking is a problem and states that she would use the park more if the expansion were approved. | Transportation |
| **Laurene Davis, 4801 Virginiatown Road, Newcastle** | |
| The commenter, an equestrian, expresses support for the park and parking lot expansion. She would like to access the far end of the park from a new trailhead in the Garden Bar area, rather than needing to spend a full day riding on the new trails after entering from the Mears Place parking lot. She calls for trails without blind curves that are wide enough to share because the current trails are used by many groups. She believes that providing multiple access points would improve safety by spreading out the trail users. | Transportation |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Diane Dolley, 9300 Cramer Road, Auburn** | |
| The commenter opposes the proposed parking lot, stating that it will have adverse impact on Bell, Cramer, and Lone Star Roads, which are heavily traveled and narrow, with blind curves and other hazards. The commenter states that the County must prepare a new EIR because the current one is inadequate and nearly 10 years old, and because the County is proposing to more than double the original area from the first EIR. | Introduction,<br>Project Description,<br>Transportation |
| **Kathryn L. Oehlschlager/Downey Brand LLP, on behalf of Harvego Real Estate LLC** | |
| The commenter resubmits comments sent on the original NOP for the proposed project in February 2017 and reiterates concern about issues raised previously: impacts on adjoining property, reasons for preparing an SEIR rather than a new EIR, the County's need to obtain an easement over the commenter's client's property for public use, the effects of improving Curtola Ranch Road, stormwater flow issues, and limited utilities in the area of the proposed parking lot. | Introduction,<br>Project Description,<br>Hydrology and Water Quality,<br>Public Services and Utilities |
| The commenter elaborates on concerns about the impacts of constructing an access roadway through her client's property, specifically, impacts on protected species, native trees, and riparian resources, and states that these may trigger additional environmental permits. She calls for the SEIR to analyze, disclose, and mitigate these impacts, and expresses surprise that the County has not met with her client before moving forward with the project. | Project Description,<br>Hydrology and Water Quality,<br>Biological Resources |
| **Tricia Frazier, no address or affiliation provided** | |
| The commenter, an equestrian, expresses her support for the expansion project. | NA |
| **Robert (Bob) and Louise Fry, 5401 Bell Road, Auburn** | |
| The commenters state that the project could adversely affect neighborhood character and home values, including through noise, dust, theft, destruction of property, and destruction of beautiful views. | Visual Resources,<br>Noise,<br>Public Services |
| The commenters state that the property at 5345 Bell Road that the County is trying to purchase is not worth what the County is willing to pay, and is in the middle of a quiet area of residences and animals. They urge the County to use its already existing property to take the road farther into the park and create more parking there, and ask why the County turned down the man at the public meeting who offered to sell his land for County use. | Introduction,<br>Project Description,<br>Land Use and<br>Agricultural Resources |
| The commenters express concern that sections of Bell Road are not wide enough for two trucks and horse trailers to pass each other, and state that Cramer Road is worse. They state that the new parking lot will end up as the main entrance to Hidden Falls, and the roads cannot handle the type of traffic that will occur. The commenters state that when an accident occurs on SR 49, traffic is diverted down Lone Star and Cramer roads onto Bell Road, and ask how that will work with trucks and horse trailers. They add that the County will have to take people's property for turnouts and a left-turn lane. | Transportation |
| The commenters express the opinion that the County needs to prepare a new EIR. | Introduction |
| **Wally (W. Charles) Gaffney, 4961 Bell Road, Auburn** | |
| The commenter expresses opposition to the proposed Twilight parking lot, noting that the area is very near his family's home. He states that the area is zoned residential/agriculture, not Parking Lots. | Land Use and<br>Agricultural Resources |
| The commenter requests that the SEIR include an analysis of drainage, stating that an asphalt and/or concrete parking lot surface of 40± acres (with oil and other fluids and parking lot hazardous waste) will drain to adjacent ponds and creeks. The analysis should cover drainage of surface pollutants from vehicles on the parking surface. | Hydrology and Water Quality, |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| The commenter expresses concern about safety and project cost, questions County expenditures not approved by residents, and potential devaluation of surrounding properties. He also requests that the SEIR analyze impacts on road safety from increased traffic; increased fire danger caused by nonresidents; and negative impacts on existing agricultural, livestock, and natural grazing lands. | Land Use and Agricultural Resources, Transportation, Hazards and Hazardous Materials |
| The commenter urges the County to find another parking area and park access other than the proposed Twilight parking lot at 5345 Bell Road, and to make the parking lot smaller. | Alternatives |
| The commenter asks the County to contact the California Fish and Game Commission, Sierra Club, California Rifle & Pistol Association, Save Auburn Ravine Salmon & Steelhead, Placer County Conservation Program, and California Sport Fishing Protection Alliance regarding the project and SEIR. | Introduction, References and Persons Consulted |
| **Wally and Lynn Gaffney, 4961 Bell Road, Auburn** | |
| The commenters express concern that the purchase of the proposed parking site will affect not only Bell Road, but homes on Cramer and Lone Star roads. These roads are narrow, with blind curves, and are not designed to accommodate the increased level of traffic. The commenters state that the project will cause a large influx of traffic, will affect property values, and will result in increased littering, property damage, drug use, trespassing, illegal parking, and theft. | Transportation, Public Services |
| **Jim and Jane Goddard, 11400 Lone Star Road, Auburn** | |
| The commenters express their opposition to the project, citing concerns about negative effects on Bell, Cramer, and Lone Star roads and SR 49. They recount their perception of the February 21, 2017, meeting regarding the proposed Auburn Valley Country Club entrance, and share the comment letter they previously submitted on February 28, 2017. The commenters state that the concerns expressed at the February 2017 meeting, such as increased crime, mail theft, trash, excessive traffic, verbal harassment of property owners, and effects of traffic congestion on emergency response, remain relevant in light off the proposed entrance off Bell Road. | Transportation, Public Services, Hazards and Hazardous Materials |
| The commenters recount, for the benefit of the County Board of Supervisors, their perception of the July 14, 2018 scoping meeting. They express their dismay at the response of County personnel and consultants to participants' comments, and concern about the potential costs of the project to local taxpayers. | NA |
| **Darrell and Linda Graham, Preserve Rural Placer, 4125 Bell Road, Auburn** | |
| The commenters express opposition to the proposed new park access point, stating that Bell, Cramer, Lone Star, Joeger, Dry Creek, and other roadways are narrow, with twists and blind spots, and were not intended for use as major throughways. They are concerned about increases in traffic, speeding vehicles, noise, litter, and other environmental pollutants. | Transportation, Noise, Hazards and Hazardous Materials |
| The commenters express dismay that an area zoned for agriculture and dotted with oak trees and containing wetlands would be turned into a parking lot and retail venue. They interpret the use of Tree Preservation Fund money to purchase the parking lot property to allow the removal of up to 67% of the trees and woodland habitat for the parking lot and trailhead, and state that dozens of trees, including heritage oaks, may have to be removed to widen the roads to accommodate traffic and bicycle lanes. They state that these effects seem directly opposed to Placer Legacy's mission and objectives. | Land Use and Agricultural Resources, Biological Resources |
| The commenters also express concern about the availability of water, the opportunity for fire, and the cost of the project to taxpayers. | Hydrology and Water Quality, Public Services ,Utilities, Hazards and Hazardous Materials |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| Citing effects on the Mears Road neighborhood, the commenters state that the location of Hidden Falls is not meant for large numbers of people to visit and that plenty of other places, like the American River Canyon, are available for people to visit without affecting residents. They suggest that the County parks commission look into a shuttle system to being people to the existing site. | Project Description,<br>Alternatives |
| The commenters request that the County contact every resident in North Auburn west of SR 49, Placer Grown, Placer Wineries & Breweries Chamber of Commerce regarding the project and SEIR. | Introduction,<br>References and Persons Consulted |
| **Linda Graham, 4125 Bell Road, Auburn** | |
| The commenter requests a meeting with County personnel to discuss the potential for a speed and traffic safety survey for the residential area of Bell Road, 3000 block and up, citing dangerous conditions with speeding and reckless driving since the speed limit was raised to 40 mph. The commenter states that the speed limit is too high and expresses the hope that speed and roadway safety issues can be addressed before the proposed park expansion, which she supports. | Project Description,<br>Transportation |
| **Leslie Gray, no address or affiliation provided** | |
| The commenter expresses support for the Hidden Falls expansion. A volunteer with the Placer County Sheriff's Search and Rescue Mounted Team, the commenter states that having places to ride and train horses is a vital part of saving lost people. | |
| **Nancy Halcumb, 5600 Upper Ridge Way, Auburn** | |
| The commenter expresses opposition to using Bell Road as a parking lot and exposing residents to the same effects experienced by resident of Mears Road, including traffic problems and increased chance of fire. | Transportation,<br>Public Services and Utilities,<br>Hazards and Hazardous Materials |
| **Sue Ann Hall, 4990 Bell Road, Auburn** | |
| The commenter expresses opposition to the land purchase, stating that there are many places that tax money could be used instead of entertaining people who do not live in the area. She states that more people means more crime, garbage, and traffic and increased danger of human-started fires. | Transportation,<br>Public Services and Utilities,<br>Hazards and Hazardous Materials,<br>Cumulative |
| **Pamela Hart, 10395 Blue Heron Court, Auburn** | |
| The commenter states that the access roads to the proposed parking lot are inadequate for the expected traffic, and that turns are already scary even for normal-sized vehicles. She also states that when two cars pass, there is no room for bicyclists, and that even widening the roads to 18 feet will not accommodate cyclists. | Transportation |
| The commenter cites the controversy experienced in Placer County regarding winery event usage. She recalls that the result was that events could occur occasionally, not every weekend, and states that the current project proposes land usage every day of the week and every weekend, resulting in traffic and other disruption beyond what any winery proposed. | Land Use and<br>Agricultural Resources,<br>Transportation |
| The commenter states that the County seems to be proposing access to Placer Legacy property rather than to Hidden Falls property, and calls it inconsistent with Placer Legacy's purpose to allow multiple roads and trails to cross the wilderness. She states that wildlife will not be protected because undergrowth must be disrupted to create trails and protect from fires, which also will be more likely. The commenter states that horses bring in foreign substances in their feces, a breeding ground for seeds, and that this is how the star thistle was introduced to this area. | Introduction,<br>Project Description,<br>Biological Resources,<br>Hazardous Materials and Hazards |
| The commenter states that the project is creating an "attractive nuisance" for which the County (meaning taxpayers) can be held liable, and will invite the homeless population who can cause adverse effects on streams, start fires, etc. | Public Services<br>Hydrology and Water Quality |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Erika Hazen, Cramer Road, Auburn** | |
| The commenter provides a copy of a notice taped on the mailboxes on her road, urging residents to oppose the proposed parking lot, but states that she is in favor of the new access point. | |
| **Joel and Erica Houston, Cramer Road, Auburn** | |
| The commenters express alarm about the proposed parking lot and trailhead, stating that the local roads are narrow, hilly, and winding and are poorly maintained, and that Cramer Road has no yellow center line or white lines on the shoulders because it is too narrow. They ask the County to consider their liability for accidents and deaths they believe will happen because of increased traffic and congestion. The commenters ask whether the County plans to purchase easements from all landowners along Cramer Road to widen and improve the road before opening the parking lot. They state that Bell Road and Lone Star Road will also need to be widened, and ask whether the County will put in a stoplight at Cramer and Lone Star roads before opening the parking lot. | Project Description,<br>Transportation,<br>Public Services |
| The commenters ask how many heritage oaks will need to come down to widen the roads and make them safe. | Project Description,<br>Biological Resources |
| **Judy Isaman, 4985 Bell Road, Auburn** | |
| The commenter requests that the SEIR discuss proposed home developments, including low-cost housing, proposed developments at Dewitt Center, and the homeless shelter. She also requests that the SEIR describe impacts on wetlands; water supplies for the proposed project; wells providing water to property owners within a 1-mile radius; traffic safety (all feeder roads to the park and the Cramer Road/SR 49 intersection), and fire prevention. | Land Use and Agricultural Resources,<br>Transportation,<br>Hydrology and Water Quality,<br>Public Services and Utilities,<br>Hazardous Materials and Hazards |
| The commenter suggests incorporating shuttles to and from the current park entrance off Mears Road to reduce impacts on that neighborhood. She believes adding a shuttle stop at SR 49 or the Interstate 80 entrance can help generate income for area businesses as park visitors stop to eat or pick up picnic items. | Alternatives,<br>Transportation |
| **Kelly Jackson, P.O. Box 143, Meadow Vista** | |
| The commenter expresses concern that the project will decrease the value of the farms and ranches in the area. She asks who will fix and maintain Bell, Cramer, Lone Star, Joeger, Dry Creek, and other rural roads. | Land Use and Agricultural Resources,<br>Transportation |
| The commenter states that purchasing the property is not the way that the Tree Preservation Fund was intended to be spent. She states that extensive destruction of habitat and plant and animal communities seems directly opposed to Placer Legacy's mission and objective. | Biological Resources |
| The commenter also expresses concern about the availability of water and the opportunity for fire. | Hydrology and Water Quality,<br>Public Services and Utilities,<br>Hazards and Hazardous Materials |
| **Jane LaBoa, 7425 Mount Vernon Road, Auburn** | |
| The commenter expresses support for the proposed project. She asks the County to maintain a strong park ranger presence, particularly on weekends and holidays, and to not permit—or at least limit and police—large events. She urges the County to use online permits for new parking areas and prohibit street parking, similar to the current system; to install remote surveillance measures at all parking areas; and to consider increased traffic in its road maintenance. New parking areas should be delayed or scaled back if these issues cannot be mitigated. | Project Description |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Michael and Mary Lake, 6170 Viewridge Drive, Auburn** | |
| The commenters express their opposition to the proposed project, citing concerns about conditions on Cramer, Bell, and Lone Star roads (e.g., narrow roadways, sharp curves) that make the roadways inadequate to handle the additional traffic. They also are concerned that the Lone Star Road/SR 49 intersection is inadequately designed to handle the increase in traffic, citing limited sight distances, lack of acceleration lanes that complicate turns on SR 49, and noting that Caltrans will not install a traffic signal there. | Transportation |
| The commenters state that Auburn Valley Road is privately built and owned, and that allowing project-related traffic to use that roadway would be dangerous to current residents and place an unfair cost burden on them. | Transportation |
| The commenters state that the total cost of the proposed project to taxpayers is unreasonable in relation to the benefit derived, because most use of Hidden Falls comes from non–Placer County residents who are not required to pay for it. | Public Services, Utilities |
| **Susan and Cornelius (Eb) Lane, 11380 Lone Star Road, Auburn** | |
| The commenters express their concern about the proposed project, citing existing hazards for residents seeking to pull out of their driveways along Lone Star Road and the potential for severe accidents to result from the addition of project-related traffic. The commenters state that local residents previously asked the County about having roads improved, but were turned down based on insufficient statistical injuries or fatalities to warrant the expense. They also state that turns between SR 49 and the local country roads are often already frightening and that adding heavy trucks and horse trailers would worsen these conditions. The commenters ask who will actually benefit from the project, given the high financial cost and the dangerous traffic conditions. | Introduction, Transportation |
| **Gary Leeds, 4101 Monteverde Drive, Lincoln** | |
| The commenter expresses his opposition to the proposed parking lot and states that if elected officials approve this development, he will vote for individuals who oppose it. | |
| **Lorrie Lewis, 6245 Wise Road, Newcastle** | |
| The commenter expresses opposition to the proposed project, stating that the proposal would change the zoning from Agriculture to Recreational without a zoning text amendment, while she was not allowed to go outside her zoning. She states that the County is not exempt from zoning requirements just because it is the lead agency. The commenter also expresses dismay that while the County is spending time and money to reduce carbon footprints, its proposed project encourages more than 100 vehicles and 40 horse trailers to use a part of the county that is not zoned for that amount of traffic. | Project Description, Land Use and Agricultural Resources |
| The commenter states that she is having second thoughts about having been a supporter of Placer Legacy and Placer Land Trust, based on how the County is managing its current land donations. | |
| **Wendy Lumbert, longtime homeowner, Cool** | |
| The commenter expresses her support for the project, noting that the proposed parking on Bell Road would be much more easily accessed by her family and other residents on the Divide than the current parking lots. She states that the conservation land was clearly meant to be used by the public and guided tours do not allow enough access. | Transportation |
| **Gail Maduri, 3318 Hamblen Court, Cool** | |
| The commenter states her opinion that there should be more access to public land, not less, as more people need access to places like Hidden Falls to bring peace, pleasure, and perspective to their lives. She encourages the County to find a balance between these needs and nearby property owners' concerns. | Transportation |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Larry Matz, no address or affiliation provided** | |
| The commenter expresses support for the proposed expansion. He states that additional access and parking on Garden Bar Road and from Bell Road, and expansion of the trail system, are critically important because people have been denied access due primarily to limited parking. He believes the proposal is comprehensive and well thought out, with appropriate mitigation measures. | Project Description, Transportation |
| **Bonnie and Tim McAdams, Preserve Rural Placer, 4260 Bell Road, Auburn** | |
| The commenters express their opposition to the proposed purchase of the Twilight Ride property because the rural roads leading to this access point were not intended to be used as major throughways. They cite the risk of injury to residents and potential for decreases in property values. | Transportation |
| **Abbas Mehdi, 8200 Christian Lane, Granite Bay** | |
| The commenter is in favor of expanding the trails and parking. He asks whether a petition with names and signatures would suffice to express support for the project, or whether each signee needs to comment and make a case. | Project Description |
| **Teresa Muscarella, 11400 Cramer Road, Auburn** | |
| The commenter suggests looking up who is actually using the current Hidden Falls park, using the park's reservations website. She states that if the bulk of visitors are coming from southern Placer County or Sacramento County, then adding another access point closer to them would be prudent. She suggests that the ranch in Lincoln offered by a participant in the June 2018 scoping meeting is a good option that should be explored. | Project Description |
| The commenter states that the Bell, Lone Star, and Cramer road areas are rural, rather than semirural as stated by the County. She states that many of the properties are Williamson Act properties and that the winding, narrow roads are traveled by tractors, along with ATVs and slow-driving pickups. She asks whether Cramer Road will be widened and if so, on which side; whether fences will be replaced; how horse trailers, city drivers, tractors, and bicyclists will coexist on Bell Road; and whether the County plans to widen Bell Road. | Project Description, Land Use and Agricultural Resources, Transportation |
| The commenter expresses her concern about the effects of extra traffic, including noise, congestion, accidents, and illegal parking. She states that signs will need to be posted explaining where the park is and where not to park, but that city planners have stated that signage is blight. | Project Description, Visual Resources, Noise, Transportation |
| The commenter asks what additional concessions will be provided; why showers are included; whether water will come from a well and whether that will affect neighbors' wells; whether camping will be allowed and bike rentals included; how noise, homelessness, and garbage will be controlled; how the facilities will be policed; and how roads will be maintained. She requests that the new park area have an equal burden with Mears Road if the park must happen. | Project Description, Noise, Hydrology and Water Quality, Public Services and Utilities, Transportation |
| The commenter questions Placer Legacy's operational processes and priorities with regard to the property purchase and subsequent planning and design. She states that it should be public knowledge when and where property is purchased from the County before the purchase occurs, and asks about a map of all land owned in the trust. | Project Description |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Ron and Barbara Paitich, 5841 Bell Road, Auburn** | |
| The commenters support expanding the park because they will be able to use trails closer to home. They believe the projected increase in the number of cars (100 over the period of a day) is a trivial increase. The commenters believe the proposal by the Lincoln resident who offered to sell his property near the west end of Hidden Falls is an ideal solution. They believe access to a park of the size of Hidden Falls should come from several locations, and should include easy access from the west because population density is larger on the park's west side. | Other CEQA Sections |
| The commenters believe that park access should possibly be limited to Placer County residents. They cite the example of Palo Alto Foothills Park, which limits park access to Palo Alto residents and their accompanied guests with proof of residency required; they provide a link to information about the residency requirement. | Other CEQA Sections |
| **Steve and Alice Perry, 4712 Howe Lane, Auburn** | |
| The commenters express alarm at the potential parking lot on the corner of Bell and Cramer roads. They believe the parking lot will not fix the situation at the current Hidden Falls facility, but will worsen it. The commenters state that there are already enough places in the greater Bay Area to ride, bike, and hike without making the neighborhood and roads more unsafe. | Transportation |
| **Dr. Jaya Perryman, 4360 Burt Lane, Auburn** | |
| The commenter expresses objections to the proposed project, stating that Cramer, Lone Star, and Bell roads are inadequate and dangerous for anticipated traffic impacts, and that the influx of people will increase fire risk, adversely affect the rural agricultural area, and disturb and destroy sensitive habitat. | Biological Resources,<br>Public Services and Utilities,<br>Hazardous Materials and Hazards,<br>Transportation |
| The commenter asks why the "disaster" at Mears Road would be duplicated, states that there is no plan for cleanup and patrol of the area, and that many recreational areas elsewhere are being restricted because of overuse and the paradigm of attracting "more and more" visitors is antiquated. | Introduction,<br>Project Description |
| The commenter suggests that the County consider the future of the community and do a careful review that includes contemplating other options. | Other CEQA Sections |
| **Diane Phillips, 24744 State Highway 49, Auburn** | |
| The commenter expresses support for the project. A resident near the proposed new staging area, she states her belief that although the project will create more traffic, it would also increase property values in the area. | Transportation |
| **Jean and James G. Piette, 5395 Bell Road, Auburn** | |
| The commenters express shock at the May 31, 2018, article in the *Auburn Journal* about the proposed new Hidden Falls trailhead. They note having contacted the County previously to express fear that the County was planning to attempt to fix one problem by causing other problems of greater scope. They state that instead of issuing a revised NOP and modified conditional use permit, simply following up on the 2010 conditional use permit and EIR, the County should start an entirely new process specific to the Twilight Ride parcels, and address a larger set of issue areas. | Introduction,<br>Project Description |
| The commenters express their disappointment at their experience at the June 2018 scoping meeting for the project, and their concern that the project appears to be near completion without any contact with or consideration for residents. They question the legality of the procedures, ask whether County personnel have seen the actual properties that would be affected. They state that property values would decline 25% to 50% if the project is approved and ask whether County personnel care about the project's effects on local residents. | Introduction |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Leslie Prevost, Seducente Ranch and Vineyard, Pilot Hill** | |
| The commenter expresses support for the expansion. She states that she and her husband ride at Hidden Falls regularly, and that relieving parking congestion and adding more space are pluses. | |
| **Paul Primmer, no address or affiliation provided** | |
| The commenter cites an article in the *Auburn Journal* about Placer County's fire rating and asks what a park does to an area's fire rating. He states that he cannot see how a park would help the rating, and that it would only hurt the area. The commenter also states that the new parking off Bell Road does not negate the questions he had about the first (2017) NOP. | Public Services,<br>Hazards and Hazardous Materials |
| **Kenneth Jon and Janet Claire Quarry, 5495 Bell Road, Auburn** | |
| The commenters state their opposition to the project, citing fire danger, added noise, possible loss of water to local wells, and problems with homelessness. They state that law enforcement and the fire departments are thin and the roads are narrow with many blind curves. The commenters, who live at the corner of Bell and Cramer roads, state that vehicles will have to make a left turn less than 50 feet from their front door. | Transportation,<br>Noise,<br>Hydrology and Water Quality,<br>Public Services,<br>Hazards and Hazardous Materials |
| **George T. Ronk II, Preserve Rural Placer, 4435 Gambah Drive, Auburn** | |
| The commenter expresses his opposition to the proposed project, stating that it will lead to an increase in traffic and accidents on local roads that were not intended as major throughways; will increase noise, litter, and other environmental pollutants; and will reduce his property value. | Noise,<br>Transportation |
| The commenter expresses dismay that an area zoned for agriculture and dotted with oak trees and containing wetlands would be turned into a parking lot and retail venue. He interprets the use of Tree Preservation Fund money to purchase the parking lot property to allow the removal of up to 67% of the trees and woodland habitat for the parking lot and trailhead, and states that dozens of trees, including heritage oaks, may have to be removed to widen the roads to accommodate traffic and bicycle lanes. He states that these effects seem directly opposed to Placer Legacy's mission and objectives. | Project Description,<br>Transportation,<br>Biological Resources |
| The commenter also expresses concern about the availability of water, the opportunity for fire, and the cost of the project to taxpayers. | Public Services,<br>Hazards and Hazardous Materials |
| **Ann Rubenstein, no address or affiliation provided** | |
| The commenter expresses support for expanding Hidden Falls for equestrian use. | Project Description |
| **Bart Ruud, 10800 Cramer Road, Auburn** | |
| The commenter expresses dismay at the May 22, 2018 action item before the Board of Supervisors to purchase the Twilight Ride property, stating that the unannounced effort to initiate the process was intentional and unethical. He expresses the opinion that using the County Tree Preservation Fund and Placer Legacy Open Space Trust Fund to purchase the property for a parking lot could be illegal and should be looked at by a third party, not the County. The commenter lists the various needs he believes must be met for the project to occur (e.g., lighting, fencing, refuse control, law enforcement, need for water) and questions the expense to the taxpayer relative to the benefit. He states that there is a potential multi-million dollar impact on Placer County if the parking lot is permitted. | Introduction,<br>Project Description |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| The commenter states that the project proposes to create an "attractive nuisance" similar to the one created in the Mt. Vernon Road/Mears Road area, and that it is wrong to try to solve one problem by causing another. The commenter states that Placer County has plenty of easily accessible open space sites for recreation and that the County should not believe an obligation exists to provide additional open space. He foresees cutting other department budgets to provide funds for parks. The commenter states that the planning for a new staging area thwarts the intent of the Placer Legacy Trust Fund because it promotes intensive use by out-of-county users, who should consider using Auburn State Recreation Area. | Introduction,<br>Project Description |
| **Delana Ruud, 10800 Cramer Road, Auburn** | |
| The commenter objects to the purchase price of $1,120,000, which she believes to be highly inflated, and calls for a review of the valuation of the 40 acres of open space. She also objects to the use of the Placer Legacy Open Space Fund and the Tree Preservation Fund for the purchase. | Project Description |
| The commenter expresses dismay that no mention is made of the cost, type, or design of the entrance or road leading from Bell Road, or of the parking lots. She asks how these upgrades will be paid for, inquires about upkeep and liability, and cites challenges being experienced at Mears Road. | Introduction,<br>Project Description |
| The commenter states that Lone Star, Cramer, and Bell Roads are substandard and can barely handle current traffic, people drive too fast, access to SR 49 from Lone Star and Cramer Roads is very difficult. She expects that the accident rate and number of fatalities will increase significantly because drivers to the parking lot will be primarily from urban areas and unaccustomed to the rural roads. | Transportation |
| The commenter expresses concern that adding another parking lot will result in wildland fire. She cites several fires that have occurred in the area, including some that have occurred on her acreage. | Public Services,<br>Hazards and Hazardous Materials |
| The commenter is concerned that other County departments or programs could be squeezed or eliminated and questions whether the parking lot would have any benefit to the area, compared to the problems she foresees resulting from the project, such as increased theft and noise. | Public Services,<br>Noise |
| **Louis and Carol Salatino, 10111 Ranch Road, Auburn** | |
| The commenters state that 5345 Bell Road would not be an appropriate location for the proposed parking lot, because increasing traffic on a narrow two-lane road would cause safety hazards; with more people using the area, more trash could contaminate the landscape; and bringing a public parking area into a rural setting commonly results in increased property damage, drug use, and trespassing. The commenters say they have heard of homeless people "scoping" out these types of areas. | Transportation,<br>Public Services |
| The commenters state that putting in wells in the area of the proposed parking lot could greatly affect groundwater levels, posing a threat to residents using private wells and potentially contaminating the water supply. | Public Services |
| **Larry and Christine Simmons, 4844 Bell Road, Auburn** | |
| The commenters express their opposition to the proposed parking lot at 5345 Bell Road, citing concerns about increased traffic and related safety issues, increased fire risk, disruption to wildlife in the area, wear and tear on already bad road conditions, increased littering and property damage, trespassing on private property, and illegal parking. | Project Description,<br>Transportation,<br>Biological Resources,<br>Hazards and Hazardous Materials |
| The commenters are troubled by the County's lack of communication with local residents before the Board of Supervisors' vote on the terms of purchase for the property. They state that they left the scoping meeting with the feeling that County officials do not care about the impacts of expanding Hidden Falls. | Introduction |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Charley D. Smith, 3782 Bankhead Road, Loomis** | |
| The commenter states that the proposed project will not solve the current problems associated with Hidden Falls Regional Park, such as traffic congestion. He states that instead, the park should expand to the west to alleviate the traffic and access impacts. He describes other routes that visitors could take to access Hidden Falls. Citing traffic congestion as Placer County's greatest problem (and providing Placer County maps and information on western Placer County's history), the commenter states that the traffic problem mentioned by residents along Bell Road and SR 49 will only be compounded if the County delays in adding a western entrance to Hidden Falls. The commenter offers his ranch and the proposed Horse Celebration Park (which could connect to Hidden Falls) as part of the solution to the traffic problems. He states that using eminent domain in some areas may be appropriate if needed. | Introduction,<br>Project Description,<br>Transportation,<br>Alternatives |
| **Marti Snyder, Garden Bar Road, Auburn** | |
| The commenter expresses concern about traffic on Garden Bar Road. She states that when she subdivided her 160 acres into three parcels, she was required to put in an 18-foot-wide road with turnouts, and that both the County and developers must comply with the same codes and laws. She states that once the County paints a stripe down the middle of Garden Bar Road, the roadway will lack the legally required space for a traffic lane on either side. She calls on the County to improve the road, paint a solid yellow line, post "no passing" signs, and impose a speed limit. | Project Description,<br>Transportation |
| **Nicole Spencer, Realtor, 500 Auburn Folsom Road, Suite 300, Auburn** | |
| The commenter expresses support for the project. A North Auburn resident, she enjoys hiking, riding horses, and kayaking, and appreciates the chance to have a place to go that is closer than the existing Hidden Falls, Empire Mine, the canyon, and other trails (20–30 minutes away). | |
| **Heidi Storm, no address or affiliation provided** | |
| The commenter expresses support for the project. A hiker and equestrian, she favors continuing to implement the current parking plan and taking other steps to prevent overuse and abuse of the park. She believes that with wisely enforced rules, the expanded park would be appreciated as much by neighboring residents as by visitors who travel to the park. | Introduction,<br>Project Description |
| **Marianne Stuart, 8312 Yvonne Way, Fair Oaks** | |
| The commenter expresses support for the project, stating that the explosive growth in park use shows the extent of the region's need for parks and open space and that linking the Big Hill, Bear River, and other ranch acquisition properties makes sense. She states that an aging population needs more trails rather than bike parks or playgrounds, and that this is an appropriate use of taxpayer dollars. | Introduction,<br>Project Description |
| **Sarah Sullivan, 4952 Bell Road, Auburn** | |
| The commenter requests that a completely new EIR be completed for the project. She states that the current Hidden Falls area has caused a large disruption and expresses concern about increased traffic, trash, use of the same water table as used for home wells, and increased fire risk. The commenter also states that some areas flood during heavy rains and that Bell Road was not constructed to handle heavy traffic. | Introduction,<br>Transportation,<br>Hydrology and Water Quality,<br>Hazardous Materials and Hazards |
| **Laurie Sweeney, no address or affiliation provided** | |
| The commenter expresses the hope that reservations will remain in place at Hidden Falls Regional Park even if expanding the park reduces congestion. The commenter also suggests providing for horse camping as part of the project and offers suggestions for the parking design. | Project Description |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Eric J. Thompson, no address or affiliation provided** | |
| Citing the name of an 1860s town as well as maps, Wikipedia, Google Earth, and other County documents, the commenter states that the name of the creek is Coon Creek, not Raccoon Creek, and requests that the name be corrected in project documents. | Environmental Setting |
| **Walkingsmooth, no address or affiliation provided** | |
| The commenter requests that the County go through with expansion of Hidden Falls because more parking is needed, including designated parking for trailers. | Transportation |
| **Michael B. Watson, 5955 Fawnridge Road, Auburn** | |
| The commenter expresses opposition to the project, which he calls rushed. He states that the EIR was done almost 10 years ago and needs to be redone to reflect the current environment and changes in traffic. | Introduction,<br>Project Description |
| The commenter states that the infrastructure does not support the project and that the affected roads are already in poor condition; can barely handle current traffic; and flow out to SR 49, which is also becoming inadequate for current traffic. | Transportation |
| The commenter is concerned that the County did not consider the residents, who now will have a view of the parking lot rather than the view they paid for. | Introduction,<br>Visual Resources |
| The commenter states that his vote in the next election will depend on the outcome of the project, and cites drugs, litter, property damage, illegal parking, and theft as outcomes on Mears and Mt. Vernon roads. He asks the County to consider effects of the project on property values. | Public Services<br>Transportation |
| **Carolyn Weaver, 5785 Lone Star Valley Road, Auburn** | |
| The commenter expresses concern about the plan to use Lone Star and Bell roads as access to Hidden Falls. She explains that numerous drivers miss a blind curve on Lone Star Road and end up on Lone Star Valley Road, a single-lane road maintained by residents rather than the County, and disturb residents. The approach to the blind curve is a steep hill that would be difficult for horse trailers to navigate, speed signs are ignored, and several near misses have occurred on the curve. There is only one way out of Lone Star Valley Road and nonresidents have parked at the head of the road, blocking residents' fire exit and the fire truck entrance. | Transportation,<br>Public Services and Utilities,<br>Hazards and Hazardous Materials |
| The commenter states that Lone Star Road has several flood zones, despite being trenched on both sides to prevent more floods. She says that to widen the road, which currently cannot allow two horse trailers to pass, dozens of old oaks would have to be removed; there is no other room except to fill in the flood trenches, thus making the road impassable and causing more flooding and property erosion. | Transportation;<br>Hydrology and Water Quality;<br>Biological Resources |
| **Keith Wenger, Imperial Mortgage & Real Estate Services, 4455 Gambah Drive, Auburn** | |
| The commenter, a business owner who lives on the corner of Bell Road and Gambah Drive, has had his mailboxes destroyed and property damaged when drivers have misjudged the sharpness of the turn, and he expects additional traffic associated with the proposed project to make the situation worse. He shares a Protect Rural Auburn petition that he and members of his family have signed, opposing the project. | Transportation |
| The commenter expresses concern about fires being started by park users. | Hazards and Hazardous Materials |
| The commenter states that the park's current entrance should be sufficient and that the project will turn Bell Road, which is already too busy, into a freeway. | Introduction,<br>Transportation |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| **Stephanie Williams and Keith Collins, Foresthill** | |
| The commenters are encouraged that the County is seeking ways to fix the parking problem at Hidden Falls, but concerned that the County did not consider the additional burden on local homeowners that increased traffic would present in terms of road maintenance on non-County-maintained roads. They cite the effect on the Foresthill community caused by access to a major staging area for ASRA, for which the County has not taken responsibility for road maintenance. | Introduction, Transportation |
| The commenters hope that some of the new parking areas will not be adjacent to a steep slope for a trailhead, because of the potential for erosion and people cutting across the trail, and because a steep starting/ending section of trail could prevent people with physical limitations from getting into the park. | Project Description |
| **Janet Willis, 25076 China Hollow Road, Auburn** | |
| The commenter expresses support for expanding Hidden Falls, stating that the need for reservations alone should tell decision makers that more recreation opportunities are needed. She asks the County to consider expanding parking for horse trailers. | Project Description |
| **Anita M. Wise, 6125 View Way, Auburn** | |
| The commenter expresses opposition to the proposed parking lot on the Twilight Ride property at 5345 Bell Road, stating that it will cause a traffic nightmare along Lone Star Road. | Transportation |
| **Brian Mark Wise, 6125 View Way, Auburn** | |
| The commenter expresses opposition to the proposed parking lot on the Twilight Ride property at 5345 Bell Road, stating that it will cause a traffic nightmare along Lone Star Road. | Transportation |
| **Rosalie Wohlfromm, 1115 Humbug Way, Auburn** | |
| The commenter asks whether the County has given any thought to widening the access roads to Hidden Falls and expresses doubt that the roads (especially Cramer Road) can support the extra traffic associated with the proposed park expansion. She cites comments from friends who live in the area about the narrow roads, blind curves, and unsafe conditions. | Transportation |
| **Jane Wurst, rural North Auburn** | |
| The commenter states that the Twilight Ride property is currently open space, and that the project will pave over and urbanize most of that acreage, and creating trails crossing over Big Hill to connect Placer Land Trust properties will urbanize several thousand acres. The commenter states that this is not just open space but sacred ground, once the home of Native Americans, and that large grinding rocks and Native American artifacts have been found on residents' property. | Cultural Resources |
| The commenter states that construction and paving of the entrance road and parking lots and building trails will result in initial destruction of habitats, then ongoing damage will result from restrooms and boarding facilities. She states that a pond (wetland) at the entrance to the property will likely need to come out, destroying that ecosystem. The commenter interprets the terms of the property purchase agreement to allow the removal of up to 67% of the trees and woodland habitat, and that dozens of trees along Bell, Cramer, and Lone Star roads, some heritage oaks, may have to be removed. She states that these effects seem directly opposed to Placer Legacy's mission and objectives. | Hydrology and Water Quality, Biological Resources |
| The commenter states that two ponds on the west side of the Twilight Ride property hold water for 8 months of the year. She states that these ponds are at the lowest point of the property and will receive drainage of oil, gas, and toxic pollutants from the parking lot, damaging the habitat of these ponds and polluting water that overflows from them and flows downhill to Orr Creek, Raccoon Creek, and the NID canal. | Hydrology and Water Quality, Biological Resources, Hazardous Materials and Hazards |

| Comment Synopsis | SEIR Section(s) that will Address the Comment |
|---|---|
| The commenter states that cyclists, hikers, equestrians, and dogs on the proposed new park acreage will threaten numerous animals and birds in the area, and increased potential for wildfire will destroy these species' habitat. | Biological Resources, Hazardous Materials and Hazards |
| The commenter states that the Twilight Ride property and acreage that is part of the proposed park expansion are cattle grazing land, and that the proposed project will cause cattle grazing to end there. She states that the focus on urbanized recreation is destructive to the sustainability of agriculture in Placer County. | Land Use and Agricultural Resources |
| **Harry and Karen Wyeth, Grass Valley** | |
| The commenters, hikers and equestrians, express support for expanding the park and improving the horse trailer parking situation. They understand the concerns of neighbors who would rather not have park traffic, but feel that these issues can be dealt with. | |

Notes: ASRA = Auburn State Recreation Area; Caltrans = California Department of Transportation; CEQA = California Environmental Quality Act; County = Placer County; EIR = environmental impact report; mph = miles per hour; NID = Nevada Irrigation District; NOP = notice of preparation; NPDES = National Pollutant Discharge Elimination System; RWQCB = Regional Water Quality Contol Board; SEIR = subsequent environmental impact report; SR = State Route

Source: Data compiled by AECOM in 2018

## SCOPE OF THE SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

Placer County has determined that a SEIR should be prepared to evaluate the potential environmental impacts of expanding the Hidden Falls Regional Park trails network. The SEIR will incorporate the content of the 2009 Hidden Falls Regional Park EIR and will explain the basis for incorporating the previous EIR's conclusions. As required by CEQA, the SEIR will describe existing conditions and evaluate the potential environmental effects of the proposed project and a reasonable range of alternatives, including the no-project alternative. It will address direct, indirect, and cumulative effects. The SEIR will identify feasible mitigation measures, if available, to reduce potentially significant impacts. Topics to be evaluated in the Draft EIR include:

- Project Description
- Aesthetics
- Agriculture and Forestry
- Air Quality
- Biological Resources
- Cultural Resources/Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services
- Transportation
- Utilities
- Alternatives
- Cumulative Impacts
- Other CEQA-Required Analyses

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# ATTACHMENT A

Revised Notice of Preparation

**COMMUNITY DEVELOPMENT/RESOURCE AGENCY**
**Environmental Coordination Services**
County of Placer

**DATE:** June 4, 2018

**TO:** California State Clearinghouse
Responsible and Trustee Agencies
Interested Parties and Organizations

**SUBJECT:** ***Revised*** Notice of Preparation of a Subsequent Environmental Impact Report for the Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project

**REVIEW PERIOD:** June 5, 2018 – July 6, 2018

Placer County (County) is the Lead Agency for the Hidden Falls Regional Park Trails Network Expansion Project (Project), and is preparing a Subsequent Environmental Impact Report (SEIR) for the Project to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.).[1] The purpose of this Revised Notice of Preparation (NOP) is to provide responsible agencies and interested persons with sufficient information in order to make meaningful responses as to the scope and content of the SEIR. Your timely comments will ensure an appropriate level of environmental review for the Project.

An NOP was previously issued for the Project, inviting comment from January 31, 2017 through March 1, 2017. This Revised NOP is being released because the project description has been amended to reflect the potential use of 50 acres located at 5345 Bell Road in Auburn (APNs 026-110-012 and 018) (the "Twilight Ride property") for additional trailhead parking (approximately 100 auto and 40 horse trailer spaces), as well as potential horse-boarding.

**Project Description:** Hidden Falls Regional Park currently includes approximately 30 miles of trails that are open to the public. The Project would expand the trail system into areas northeast, west, and east of the existing park, where the County holds existing trail easements or owns property. In total, approximately 30 additional miles of trails would be added, along with the construction of two additional bridges over Raccoon Creek between the existing regional park trail network and Taylor Ranch (as well as one additional bridge over Raccoon Creek within Hidden Falls Regional Park that was analyzed under the prior EIR), additional parking, access areas, and other improvements, and possible improvement of off-site access roads. The park features in the expansion areas would include accessibility features compliant with the Americans with Disabilities Act, drinking water fountains and restrooms, on-site groundwater wells, fire suppression facilities, equestrian features (e.g., horse watering, hitching posts, barn, paddocks, horse boarding), other potential concessions compatible with the characteristics of the park (e.g., bicycle rentals, nature education classes), picnic areas, benches, bear-proof trash receptacles, and interpretive displays.

The parcels involved in the expansion to the northeast are either owned by Placer Land Trust, or are held in a Conservation Easement by Placer Land Trust, with associated trail easements held by the County. Other connecting areas west and east of the existing park are owned by Placer County or the County holds trail easements within the areas. The Project would require the County's approval of a modified Conditional Use Permit (CUP) to cover the existing Hidden Falls Regional Park as well as the expansion areas. This modified CUP would supersede the existing CUP for the regional park, and would cover the development and operation of the existing and expanded trail network, the associated parking and roadway improvements needed, and other miscellaneous park amenities (listed in the prior paragraph).

The SEIR will evaluate the feasibility of parking and access improvements that would make optimal use of the parking area at Mears Place, would create opportunities to use already-permitted parking off Garden Bar Road on a limited, reservation basis, and would provide new vehicle access to and parking for trail network expansion areas to the north, at both the Harvego Bear River Preserve area and the Twilight Ride property on Bell Road. The

[1] An Environmental Impact Report (EIR) was previously certified in 2010 for the expansion of Hidden Falls Regional Park (State Clearinghouse No. 2007062084).

3091 County Center Drive, Suite 190, Auburn, California 95603 / (530)745-3132 / Fax (530)745-3080 / email: cdraecs@placer.ca.gov

phasing and associated road improvements discussed in the original EIR for the Garden Bar entrance will be further clarified. The SEIR will also consider a system whereby park access use permits could be issued to adjacent landowners who would provide overflow parking spaces/horse-boarding facilities to visitors, and management strategies that would link available parking to potential park users before they arrive at the site. Lastly, the SEIR will analyze the types of uses which will be allowed throughout the park.

**Project Location:** The proposed trail expansion area is located northeast, west and east of the existing Hidden Falls Regional Park, and south of the Bear River in Placer County. The Project area is approximately 40 miles northeast of Sacramento (see Figure 1, Regional Location Map). The existing Hidden Falls Regional Park area encompasses approximately 1,200 acres, and includes a parking area at Mears Place, as well as an already-permitted future parking area located off of Garden Bar Road. Figure 2 shows the Project area including regional highways (e.g., State Route 49) and local roads including Big Hill Road through the center of the Project area; Mt. Pleasant Road to the south; Bell, Cramer, and Lone Star Roads to the east providing access from State Route 49; and Garden Bar Road to the west.

The proposed expansion areas to the northeast of the existing park consist of the areas known as Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres), as well as privately-owned parcels with trail easements, such as the Liberty Ranch (313 acres). The trails will also cross the Kotomyan Preserve (160 acres) and the Outman Big Hill Preserve (80 acres). These areas are owned by the Placer Land Trust and are to be held as conservation land in perpetuity. Entry to these areas is currently limited to guided tours led by the Placer Land Trust. Placer County has trail easement rights within these properties. A parking lot and trail connection is also proposed from a County-owned parcel off of Garden Bar Road to the west of the existing park. Additionally, parking and trailhead access are proposed from the Twilight Ride property on Bell Road, as well as from the Harvego Bear River property. Figure 3 shows the existing regional park and the boundaries of the proposed trail network expansion areas.

For more information regarding the project, please contact Lisa Carnahan, at (530) 889-6837. A copy of this NOP cover letter, as well as additional information on the Project, is available for review at the Auburn Public Library, the Rocklin Public Library, the Lincoln Public Library, the Placer County Community Development Resource Agency (Auburn), and on the Placer County website:

http://www.placer.ca.gov/departments/communitydevelopment/envcoordsvcs/eir

**NOP Scoping Meeting:** In addition to the opportunity to submit written comments, one public scoping meeting will be held by the County to inform interested parties about the Project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. This meeting will be held on Thursday, June 14, 2018, from 6:00-8:00 p.m. at the Placer County Community Development Resource Center, Planning Commission Hearing Room, 3091 County Center Drive, Auburn, CA 95603.

**NOP Comment Period**: Written comments should be submitted at the earliest possible date, but not later than 5:00 p.m. on **July 6, 2018** to Shirlee Herrington, Environmental Coordination Services, Community Development Resource Agency, 3091 County Center Drive, Suite 190, Auburn, CA 95603. (530) 745-3132, Fax: (530) 745-3080, cdraecs@placer.ca.gov.

Published in Sacramento Bee and the Auburn Journal, June 10, 2018.

## 1.1 BACKGROUND

In January of 2010, the Placer County Planning Commission (Commission) approved a Conditional Use Permit (CUP No. 20090391) and certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2007062084) which added the property formerly known as the Spears Ranch (979 acres) to the 221-acre portion of Hidden Falls Regional Park (Park) already open to the public. These actions authorized Placer County (County) to operate and maintain the expanded Hidden Falls Regional Park (HFRP).

Presently, the County is considering expansion of the HFRP trail network system onto conservation lands either owned by Placer Land Trust (PLT) or held in a Conservation Easement by PLT, with associated trail easements held by the County, or onto land owned by the County. The project would improve access to the regional trail network by extending the existing HFRP trail system onto the conservation land and providing parking to support recreational activities as described below in Section 2.

The proposed expansion and modification to existing CUP No. 20090391 is a "project" as defined by the California Environmental Quality Act (CEQA) and subject to environmental review. In the case of the proposed HFRP trails expansion project, the County intends to prepare a Subsequent Environmental Impact Report (SEIR) consistent with CEQA Guidelines Section 15162. The focus of the SEIR is to determine whether the proposed HFRP trails expansion would result in effects not discussed in the prior EIR. The SEIR will also determine whether the project substantially increases the severity of previously identified impacts, identify additional mitigation measures, if needed, and determine whether alternatives previously thought to be infeasible and not adopted for the prior project are in fact feasible and should be incorporated into project approvals.

## 1.2 NOTICE OF PREPARATION

Once a decision is made to prepare an EIR, the lead agency must prepare an NOP to inform all responsible and trustee agencies (agencies) and interested persons that an EIR will be prepared (CEQA Guidelines Section 15082). The purpose of an NOP is to provide stakeholders with sufficient information describing the proposed project and its potential environmental effects to enable agencies and the public to make a meaningful response related to the scope and content of information to be included in the EIR.

The County originally issued an NOP for the proposed HFRP trails expansion in January of 2017. Subsequent to the release of the January 2017 NOP, the County approved the terms of a purchase and sale agreement that could lead to the acquisition of additional land with direct access to the existing trail network and provide additional opportunities for parking. Because of the changes in the proposed HFRP expansion areas from those identified in the January 2017 NOP, the County has elected to release a Revised NOP. Comments on potential environmental issues raised in response to the January 2017 NOP remain valid and need not be resubmitted. The purpose of this notice is twofold:

(1) to solicit input, by **July 6, 2018**, from interested individuals, groups, and agencies about the desired content and scope of the draft SEIR to be prepared by Placer County for the proposed project, and

(2) to announce a public scoping meeting on the proposed project, to be held at 6:00 p.m. on June 14, 2018, at the County Administrative Center, located at 175 Fulweiler Avenue, Auburn.

All comments on the Revised NOP shall be submitted to the County no later than **July 6, 2018**. Comments should be submitted to:

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603.
Phone: (530) 745-3132
Fax: (530) 745-3080
cdraecs@placer.ca.gov.

# 2.0 PROJECT DESCRIPTION

## 2.1 PROJECT LOCATION

The proposed trail expansion area is located northeast, west and east of the existing HFRP, and south of the Bear River in Placer County, approximately 40 miles northeast of Sacramento (see Figure 1, Regional Location Map). HFRP encompasses approximately 1,200 acres in the Sierra Nevada foothills, consisting of the properties formerly known as the Spears Ranch and Didion Ranch. Figure 2 shows the project area including regional highways (e.g., State Route 49) and local roads including Big Hill Road through the center of the project area; Mt. Pleasant Road to the south; Bell Road, Cramer Road, and Lone Star Road providing access from State Route 49 to the east; and Garden Bar Road to the west. The existing park has two access points, with an existing parking area at Mears Place and an area for an already-permitted future parking lot off Garden Bar Road.

Most of the proposed trail expansion areas are located north and northeast of the existing park within the Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres), and on privately-owned parcels with trail easements, such as Liberty Ranch (313 acres). Trails will also cross the Kotomyan Preserve (160 acres) and Outman Big Hill Preserve (80 acres). Additionally, parking areas with trail connections are proposed from a County-owned parcel off of Garden Bar Road to the west of the existing park, and from the Twilight Ride property on Bell Road to the Taylor Ranch, and from the Harvego Bear River Preserve to the trail system in that area. Figure 2 shows the existing regional park, the parcel off of Garden Bar Road, the Twilight Ride property off of Bell Road, and the boundaries of the proposed trail network expansion areas.

Figure 3 illustrates the existing and proposed points of access and parking including areas proposed for expansion. The majority of the trails expansion area is located between the existing regional park and the Bear River to the north. Most of these areas are owned by the Placer Land Trust and will be held as conservation land in perpetuity. Entry to these areas is currently limited to guided tours led by the Placer Land Trust. Placer County has trail easement rights within these properties.

## 2.2 EXISTING SETTING

### Existing Regional Park

The existing HFRP encompasses 1,200 acres and contains approximately 30 miles of multi-use trails, with parking located at Mears Place. Trails within the park cross Raccoon Creek (formerly Coon Creek) and Deadman Creek in three locations via pedestrian bridges. Raccoon Creek flows through the park from east to west. Existing park amenities include interpretive displays, restrooms, well, drinking

fountains, picnic areas, benches, trash receptacles, and hitching posts and horse-watering areas for equestrians.

Since fully opening to the public in 2013, HFRP, with its two waterfall overlooks and other recreational amenities, has grown substantially in popularity and visitation. As a result, the public parking area at Mears Place can become congested during holidays and weekends during good weather, and visitors have been turned away during these peak-use periods.

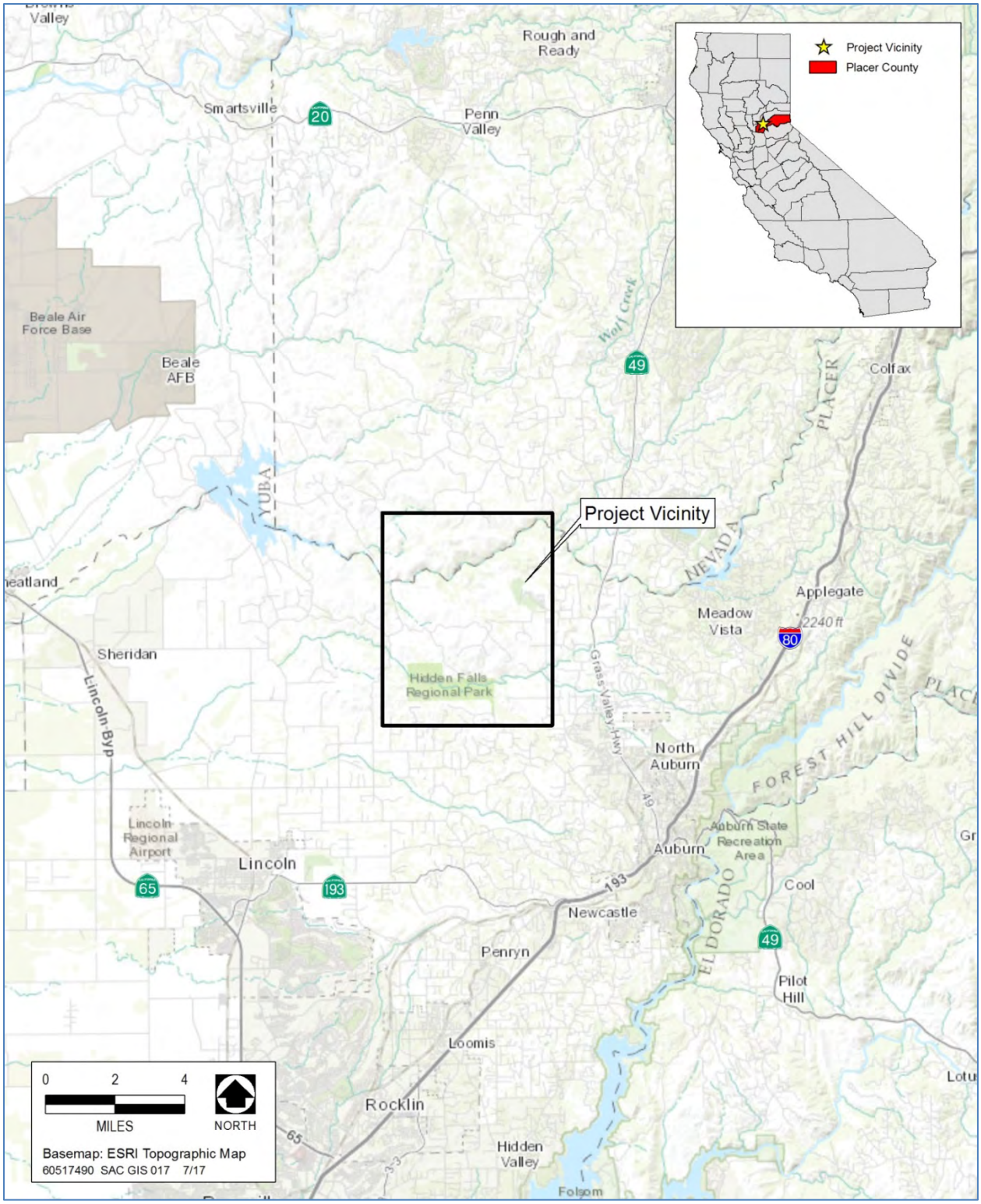


Figure 1 Regional Location

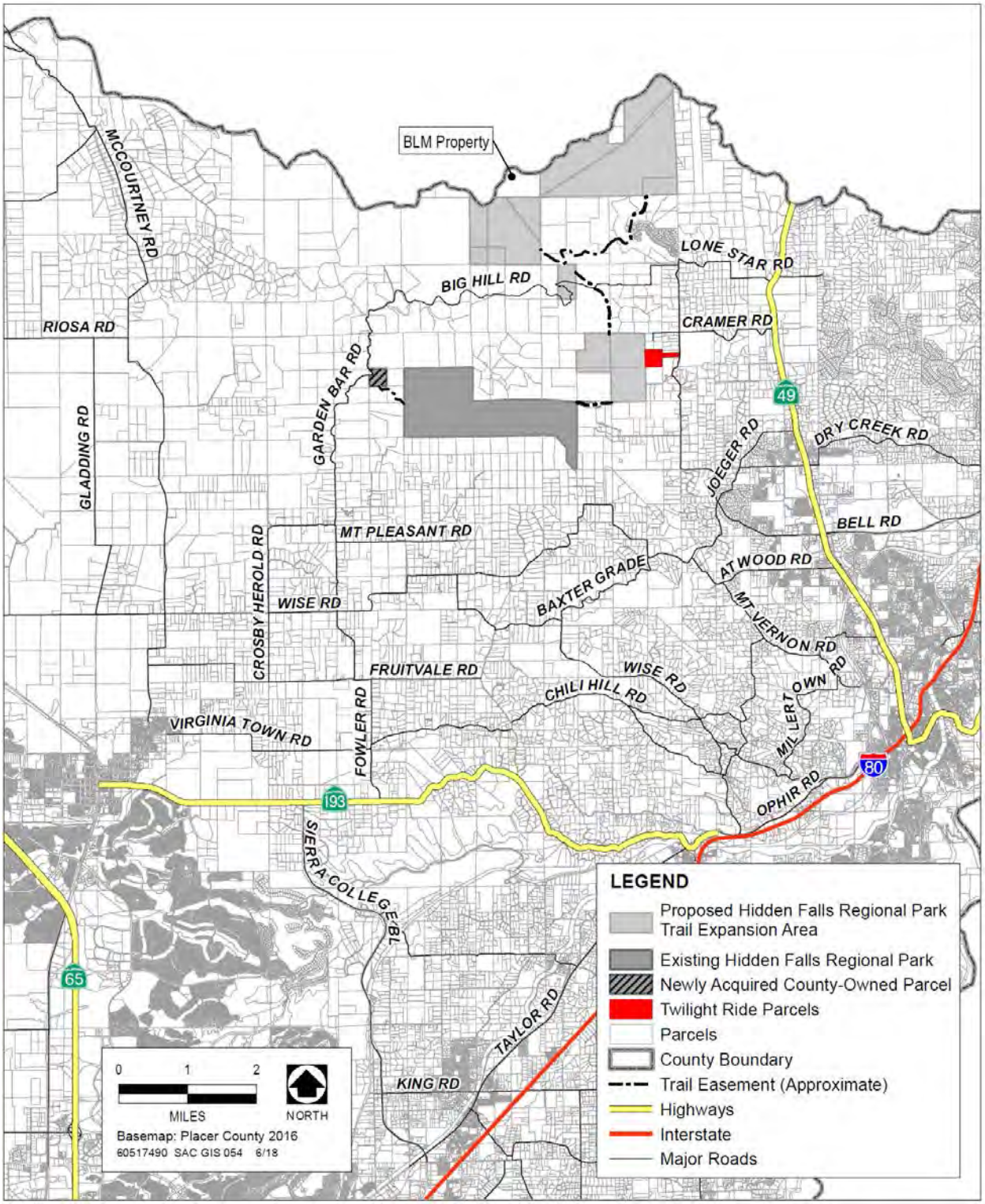



**Figure 2 Project Area**

The County Parks Division has implemented a series of operational measures to help rectify the existing parking issues, and to lessen the potential for visitors to be turned away at the entrance gate. Measures implemented to improve operations currently underway at the existing Mears parking lot include:

- Installing "No Parking" signs for a mile leading up to the park entrance;
- Use of Changeable Message Boards along the local roadways during high use days;
- Issuing daily messages on Social Media (Twitter and Facebook) regarding any trail closures and parking availability;
- Installing a web-cam with a view of the Mears Place parking area to provide real-time information on parking availability;
- Reconfiguring the Mears Place entrance to enhance traffic flow by including minor paving, signage, and pavement striping to change the direction of traffic and create a one-way flow; and
- Establishing an automated reservation system to help regulate parking availability by allowing visitors to reserve a space prior to traveling to the park.[1] Implementation of the reservation system began September 1, 2017. The intent of the reservation-based system of entry is to prevent patrons from being turned away due to unavailability of parking during peak usage times. Reservations to access the park are obtained online prior to coming to the park, thereby eliminating unnecessary vehicle trips to/from the park that must travel through the nearby neighborhoods.

The County will apply the knowledge gained from these operating methods in planning future parking areas for the expanded trails system so that any new parking areas function smoothly from the outset. Data from current use will be utilized in the SEIR to evaluate long term management strategies and provide for sustainable parking solutions which limit impacts on adjoining neighborhoods, improve the current user experience, and define future opportunities.

The existing 2009 Conditional Use Permit (CUP) for HFRP, CUP No. 20090391 approved on January 28, 2010, allows an additional parking area at the western end of the park, with access via Garden Bar Road. The County plans to construct a parking area to accommodate limited, reservation-based access off Garden Bar Road. Keeping vehicular travel to a limited number on Garden Bar Road will minimize off-site road improvements required to permit safe travel on the roadway. In anticipation of this access point becoming operational, the County acquired a new parcel off Garden Bar Road that would provide additional space dedicated for parking. Through an existing easement, this parcel would provide trail connections to the existing park. The Mears Place entrance to the park is currently under assessment with the intent to add a gated entry system and to add up to 25 additional automobile parking spaces in an overflow area. In addition, this SEIR will evaluate parking areas at the Harvego Bear River Preserve area and at the Twilight Ride property along Bell Road.

The SEIR will also consider the potential environmental impacts of granting Use Permits to adjacent property owners who may be allowed to charge park visitors for use of parking spaces and/or provide horse boarding and access to the park through private gates. Use Permits would regulate the number and

[1] https://www.placer.ca.gov/departments/facility/parks/parks-content/parks/hidden-falls

size of allowed vehicles, hours of operation, private gate usage, and other conditions to facilitate orderly use.

County Parks staff will request the approval of a modification to the existing CUP that encompasses the allowed uses on both the existing park and expansion areas. As part of this project, the type and size of allowed events and facilities will be described in greater detail and analyzed in the SEIR. The events to be considered include, but are not limited to, those allowed by the existing CUP (educational facilities, interpretive/educational classes and programs, supervised group camping, disc golf, depredation hunting, and reservation-based events), and new uses such as small venue gatherings (i.e. those involving less than 25 attendees and no amplified sound), limited horse boarding, and rentals and concessions operating within the park boundary or expansion areas. All current and proposed uses would need to complement the passive recreational and nature enjoyment features characteristic of this regional park.

## Expansion Area Characteristics

The proposed trail expansion areas are mainly located northeast of the existing park, and south of the Bear River, with other connecting trails directly to the east and west of the park. Figure 3 shows the boundaries of the trail expansion areas and shows that the project area has few roads and includes expansive undeveloped areas within the Raccoon Creek and Bear River watersheds. The area is characterized by blue oak woodland and oak–foothill pine woodland and is included in the proposed *Placer County Conservation Plan*, currently under development by the County.

The Placer Land Trust owns the Harvego Bear River Preserve, Taylor Ranch, Kotomyan Big Hill Preserve, and Outman Big Hill Preserve in fee. Taylor Ranch (321 acres) has an existing 4-mile loop trail that also crosses the 160-acre Kotomyan Preserve to the west. Raccoon Creek flows across Taylor Ranch and into Hidden Falls Regional Park. Twilight Ride is a 50-acre property that connects Taylor Ranch to Bell Road. It could provide parking for automobiles and horse trailers, facilities for horse boarding, and add another access point to the existing trail system. Liberty Ranch (313 acres) is a privately-owned cattle ranch currently under Williamson Act contract. This area has no existing trails; its intermittent drainages are tributary to the Bear River. The Placer Land Trust holds a conservation easement on the Liberty Ranch property and Placer County has a dedicated trail easement within the property that connects to the other Placer Land Trust parcels. The County's trail easement on the Liberty Ranch property is limited to a previously surveyed 25-foot wide corridor, whereas the trail easements on the remainder of the expansion area are "blanket" in nature. Therefore, there is less opportunity for trail alignment refinement on the Liberty Ranch property than there is within the rest of the expansion area under the current status of easement rights. The adjacent Outman Big Hill Preserve (80 acres) has no existing trails. Harvego Bear River Preserve (1,773 acres) has a working cattle ranch. The area has an extensive network of existing ranch roads and some trails built by the Placer Land Trust and consists of oak woodlands and grasslands adjacent to the Bear River. The area's intermittent drainages are tributary to the Bear River.

The parcel to the west of the park along Garden Bar Road is characterized by blue oak and oak-foothill pine woodlands. The County-owned parcels and easement areas directly east of the park abut Raccoon Creek, and connect the existing park with the Taylor Ranch Preserve.

The lands adjacent to these areas consist of rolling hills and are primarily private lands used for agriculture, grazing, and rural residences. The U.S. Bureau of Land Management (BLM) owns the area in between the two portions of the Harvego Bear River Preserve and south of the Bear River.

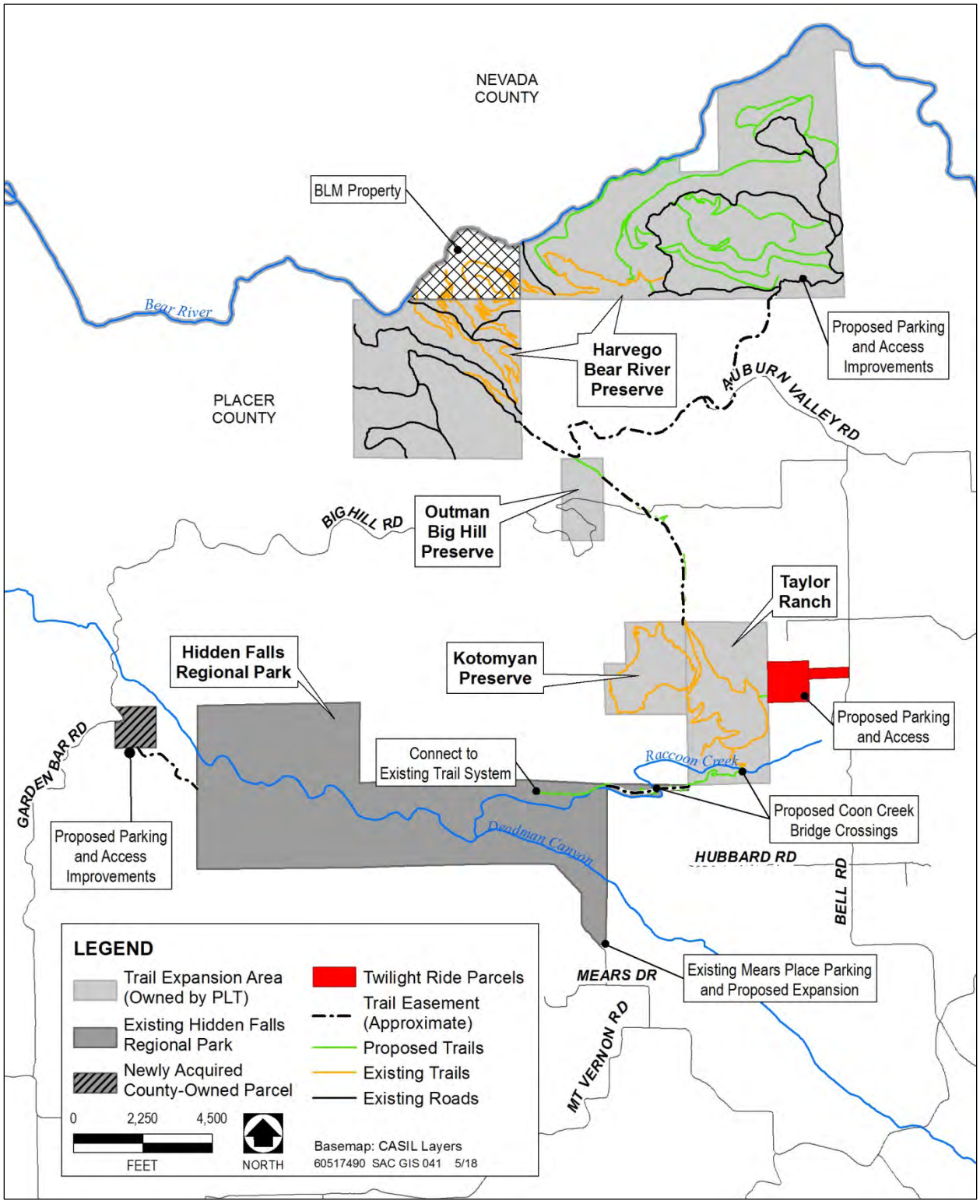



**Figure 3: Proposed Project**

## 2.3 PROJECT ELEMENTS

Placer County has collaborated with the Placer Land Trust to preserve approximately 2,500 acres of open space located north and east of HFRP. These lands, as well as connecting areas directly east and west of the existing park that are owned or held in easement by Placer County would accommodate the proposed future expansion of the public trail network from the regional park up to the Bear River. Combining the 30 miles of existing trails in the park with additional existing and new trails in the proposed trail expansion areas would provide more than 60 miles of multi-use, natural-surface trails. The expanded trails network would connect to the existing trail system in the regional park via existing easements between the park and trails in Taylor Ranch and Kotomyan Preserve, with additional connections through Liberty Ranch and Outman Big Hill Preserve to future and existing trails and ranch roads within the Harvego Bear River Preserve.

The County's discretionary actions would include approval of an amended CUP covering the existing HFRP and the expansion areas, including the designated lands to the northeast, the parcel west of the existing park that was recently acquired by the County, the areas east of the park that connect to Taylor Ranch and the Twilight Ride property. This permit and the County's SEIR would cover:

- Expanding the HFRP trails network from 30 miles to approximately 60 miles through the construction of new natural-surface trails within the lands owned or held in conservation easements by Placer Land Trust and on land owned by the County or where the County has easements;
- Project-level review of proposed trail corridors and parking areas and a program-level review of other areas within the Placer Land Trust parcels where trails or other amenities may be constructed;
- Constructing two additional bridges over Raccoon Creek between the existing regional park trail network and Taylor Ranch;
- Adding parking and access area improvements, including parking and access at Harvego Bear River Preserve for access to the northern areas of the expanded trail network, minor changes to the planned parking and access from Garden Bar Road to the west of the park, the addition of up to 25 more parking spots at the Mears Place entrance, and the potential addition of a parking/trailhead area with up to 100 vehicle and 40 equestrian parking spaces on the 50-acre Twilight Ride property;
- Allowing a limited number of privately-owned parking areas adjacent to the park boundaries with direct gate access into the park;
- Improving off-site roads which would provide access to new parking areas; and
- Identifying and clarifying the type and size of events and facilities allowed within the existing Hidden Falls Regional Park and expansion areas.

### Trails and Amenities

The trails would be used for hiking, bicycling, and horseback riding, and would connect to existing County trail easements or County-owned property, as well as areas either owned or held in conservation easement by the Placer Land Trust. As with the existing park areas, no motorized vehicles (e.g., motorcycles and off highway vehicles) would be allowed within the trails expansion area. The use of motorized vehicles in special circumstances, such as for maintenance, emergency response, accessibility assistance, and/or electric bicycles (eBikes), will be regulated through Article 12.24 et seq. of the Placer County Code ("Public Recreation Areas"). The expanded trails network would include existing trails,

existing roads and paths, and new trails based on a conceptual trail layout developed by the County and the Placer Land Trust.

The preliminary layout for approximately 30 miles of new multi-use trail construction is shown in Figure 3 and is based on each area's opportunities and constraints, including topography, drainage crossings, locations of cattle operations, and scenery. The layout may be refined further based on the results of constructability assessments and biological and cultural resources surveys. Additional trails and amenities may be developed specifically for the benefit of visitors with physical handicaps, above and beyond minimum compliance with the Americans with Disabilities Act. The park features in the expansion areas would include drinking water fountains and restrooms, on-site groundwater wells, fire suppression facilities, equestrian features (e.g., horse watering, hitching posts), picnic areas, benches, bear-proof trash receptacles, and interpretive displays. A horse barn with associated corrals and paddocks and limited horse boarding is a potential use under consideration for the Twilight Ride property.

## Bridges

The existing trails in HFRP are connected by three bridges across Raccoon Creek/Deadman Creek and rock/culvert passages and timber bridges over intermittent streams. Within the existing park boundaries, there is one additional bridge over Raccoon Creek which was analyzed under the prior EIR and is still planned for construction. To provide connectivity within the park's expanded trail network, the County plans to construct two additional bridges across Raccoon Creek in the area that connects to Taylor Ranch (Figure 3). One tributary of Raccoon Creek that lies between Hidden Falls and Taylor Ranch would require spanning with multiple culverts, box culverts, or a bridge. These bridges would provide access for pedestrians, equestrians, emergency vehicles, and small maintenance vehicles, and would be designed to minimize impacts on stream hydrology and wildlife habitat. The County would also construct foot bridges over intermittent drainages throughout the expanded trails network. The foot bridges would be designed to fit the rustic character of the surroundings and may require construction or replacement of culverts or construction of rock-lined stream crossings.

## Parking and Access

The SEIR will evaluate the feasibility of parking improvements that would make optimal use of the existing parking area at Mears Place, would create opportunities to use reservation-based parking off Garden Bar Road, and would provide new vehicle access to and parking for trail network expansion areas to the north and east. Potential on-site parking areas have been identified within the Harvego Bear River Preserve area, along with a site along Bell Road adjacent to Taylor Ranch, as indicated on Figure 3.

The SEIR will also evaluate a County proposal to issue permits to adjacent landowners who would provide overflow parking spaces to visitors, and management strategies that would electronically alert visitors to parking availability before they arrive at the site.

Planning for the proposed new or expanded parking areas will be based on evaluation of parking demands derived from existing peak period traffic surveys which identified the number of vehicles accessing the park and the number of vehicles turned away after the existing parking facility filled, and the average visit duration. However, to achieve other resource management goals, parking availability during periods of peak demand would remain limited and managed through an online reservation system, which began operation in winter of 2017.

The SEIR's traffic and parking analysis will address the effects of implementing the project with the anticipated parking supply and operation of the newly created management systems with regards to overflow parking demands and vehicle travel on adjoining streets during peak season Saturday conditions. The County will evaluate the extent to which these demand forecasts could be accommodated on-site and through parking management measures, such as the new reservation system, and extending those measures to the new parking areas.

The existing CUP for HFRP allows for an additional parking area at the western end of the park to be accessed via Garden Bar Road. The 2009 EIR contained a detailed phasing plan to develop parking in this area that began with a public access gate, connecting roadway to the existing access road, fencing and cattle guards on the access road, along with a staging area. Phase 1 also included permitting classroom sized groups to access the site through the Garden Bar entrance with an appointment so that the gate could be opened to allow entrance. The SEIR will consider additional phased improvements and management options to be implemented between Phase 1 and Phase 2. With the requirement to obtain a reservation prior to arriving at the park, unnecessary vehicle trips to the park would be eliminated, but roadway improvements may be needed to ensure public safety.

### Roadway Improvements

The SEIR will evaluate potential roadway improvements and will use the information the County has collected on traffic count data to determine Saturday peak-hour traffic volumes, current roadway capacities, intersection levels of service (LOS), design limitations, and safety issues (roadway width, design speed, and sight distance limitations) in the analysis. Proposed roadway improvements will be identified by estimating potential future traffic volumes and roadway improvements needed to accommodate visitors traveling to and from the park.

### Construction, Operation and Maintenance

The trails and other features described above would be constructed over a number of years as funding allows. Trail and bridge construction would coincide with favorable weather conditions. The trails would be constructed using a combination of methods, including both the use of small construction equipment and hand clearing of vegetation. Helicopter use may be required to access the most remote areas of bridge construction. Trail widths would vary as needed based on safety considerations and the requirement to avoid biological or cultural resources. Vegetation clearing would be scheduled outside the breeding season of migratory birds, including raptors. The proposed trail system and recreational facilities would be designed to be as low maintenance as practicable, although some regular maintenance of the trails and ancillary facilities would be required, including clearing vegetation, maintaining trails, and removing fallen trees. All operation and maintenance activities are expected to be similar to those currently undertaken within the existing park boundaries.

## 3.0 PROBABLE ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

Placer County has determined that a Subsequent Environmental Impact Report (SEIR) should be prepared to evaluate the potential environmental impacts of expanding the Hidden Falls Regional Park trails network. The SEIR will incorporate the content of the 2009 Hidden Falls Regional Park EIR and will

explain the basis for incorporating the previous EIR's conclusions regarding such topics as population and housing and mineral resources. As required by CEQA, the SEIR will describe existing conditions and evaluate the potential environmental effects of the proposed project and a reasonable range of alternatives, including the no-project alternative. It will address direct, indirect, and cumulative effects. The SEIR will identify feasible mitigation measures, if available, to reduce potentially significant impacts. Based upon preliminary environmental review, it was determined that the proposed project would not result in significant impact to the following areas and, therefore, these areas do not require further analysis in this SEIR: Population, Employment and Housing, Mineral Resources, and Recreation.

The following environmental effects will be evaluated in the SEIR:

**Aesthetics.** This section will assess the potential impacts of added parking facilities and additional trails on scenic vistas, scenic resources, visual character, and light and glare. This section will use photographs of existing public views and descriptions of proposed parking facilities to evaluate impacts. The impact evaluation will describe how the County's thematic/stylistic design guidelines for Hidden Falls Regional Park will guide the design and selection of rustic amenities to reduce their aesthetic impacts.

**Agriculture and Forestry.** This section will address potential impacts on Prime Farmland, Unique Farmland, and Farmland of Statewide Importance; conflicts with existing zoning or Williamson Act contracts; and conversion of farmland or forest land to other uses.

**Air Quality.** The air quality analysis will evaluate potential air pollutant emissions from trail and parking lot construction and expanded trail visits using current Placer County Air Pollution Control District methods and will incorporate the air quality and climate change goals, projections, and impact findings from the 2013 General Plan Update.

**Biological Resources.** The biological resources section will address potential impacts on vegetation, wildlife habitat, special-status species, sensitive natural communities including wetlands, and trees/oak woodlands. Placer County recently conducted and is planning additional biological surveys (reconnaissance-level wildlife field surveys, special-status plant surveys, and wetland delineation) and a tree assessment in the proposed improvement areas.

This section will assess both direct impacts from construction and indirect effects from long-term trail use, visitation, and maintenance. It will also address potential impacts on wildlife migration corridors and any potential conflicts with the provisions of the proposed *Placer County Conservation Plan*.

**Cultural Resources.** This section will evaluate potential impacts on archaeological, historical, paleontological, and tribal cultural resources within the trail corridors and proposed parking areas. The County is conducting cultural resources surveys, including a records search and an archaeological pedestrian survey of the proposed new trails, parking areas, and road improvement areas. The County will also be conducting consultation with Native American Tribes in compliance with AB 52.

The assessment will describe the cultural setting, known resources, and methods used to identify and assess impacts; will evaluate potential impacts; and will present the mitigation measures that would be used during construction to reduce cultural resource impacts to less than significant.

**Geology and Soils.** This section will assess the potential geological and soils impacts of trail and parking area construction, including from grading and potential roadway improvements. The soils evaluation will

evaluate whether trail, bridge, or parking lot construction could result in substantial soil erosion, and will describe how the trails and bridges will be designed to minimize erosion to the extent practicable. The seismic evaluation will identify the potential for unstable soil or dangerous geological conditions (e.g., landslides, earthquakes) and will describe how those risks would be minimized by accounting for geology and soil factors in the structural design, construction, and operation of the trails and bridges.

**Greenhouse Gas Emissions.** This section will enumerate the project's greenhouse gas emissions based on additional visitor trips, construction and long-term operation and maintenance of the expanded trail network and the impact of those emissions on adopted plans, policies, or regulations to reduce greenhouse gas emissions.

**Hazards and Hazardous Materials.** This section will address potential impacts from the transport, use, or disposal of hazardous materials or releases of hazardous materials during construction and operations. The hazards evaluation would also evaluate potential exposure of trail users and any new structures to wildland fires.

**Hydrology and Water Quality.** This section will assess potential impacts on hydrology and water quality, including the potential for trail construction and the new bridges to affect Raccoon Creek water quality or hydrology, including from erosion or from restricting flow during high flows. This section would also evaluate whether installing wells for drinking water supply would deplete groundwater supplies.

**Land Use.** This section will evaluate the project's potential land use effects on adjacent parcels and land uses and consistency with Placer County's 2013 General Plan Update and regional plans and policies, as well as applicable habitat conservation planning currently underway as part of the *Placer County Conservation Plan*.

**Noise.** This section will evaluate potential short- and long-term noise impacts from trail and parking lot construction and ongoing use. Noise levels generated by construction equipment and trail/parking lot use will be estimated using noise modeling software and compared to County noise standards and ambient noise levels estimated based on existing land uses, including existing roadways and ranching operations.

**Public Services.** The expanded trail network has the potential to increase demands on law enforcement, fire protection, and other emergency services, such as search and rescue, beyond those of the existing Hidden Falls Regional Park. The SEIR will use updated records from law enforcement and other public services from the existing park uses to evaluate the need for public services in the expanded trail network areas and determine whether additional facilities are needed that could affect the environment during construction and operations.

**Traffic and Transportation.** This section will identify potential traffic (and parking) impacts based on existing conditions, the selected configuration for access roads and parking areas, and County level of service (LOS) standards. This evaluation will provide a quantitative assessment of increases in traffic levels and potential adverse circulation effects at intersections, known parking locations, and potential future parking locations. This section will also evaluate circulation and safety of trail users where trails cross roadways.

**Utilities and Service Systems.** This section will address potential impacts of adding drinking water supply, restroom facilities, and storm water drainage to serve the project area. It will also evaluate

potential impacts on landfill capacity and how Placer County would comply with solid waste laws and regulations.

**Cumulative Impacts.** Implementation of the proposed project could potentially result in significant impacts to the above resource areas. When taken together with the effects of past projects, other current projects, and probable future projects, the project's contribution to the overall cumulative effect of all these activities could be considerable and will be evaluated in the SEIR.

**ALTERNATIVES TO BE EVALUATED IN THE EIR.** In accordance with the State CEQA Guidelines (14 CCR Section 15126.6), the SEIR will describe a range of reasonable alternatives to the proposed project that are capable of meeting most of the project's objectives, and that would avoid or substantially lessen any of the significant effects of the project. The SEIR will also identify any alternatives that were considered but rejected by the lead agency as infeasible and briefly explain the reasons why. The EIR will provide an analysis of the No-Project Alternative and will also identify the environmentally superior alternative.

# 4.0 PROJECT APPROVALS

Anticipated approvals and permits required prior to construction are listed below. All other regulatory framework will be discussed in the applicable sections of the SEIR.

## 4.1 APPROVALS REQUIRED BY PLACER COUNTY

The proposed project would require the following Placer County actions:

- Certification of the SEIR for the Hidden Falls Regional Park Trails Network Expansion Project and adoption of the Mitigation Monitoring and Reporting Plan;
- Conditional Use Permit Modification; and
- Grading Permit

The access-roadway improvements and utilities required to accommodate the expanded trail network may also require encroachment permits from the County Department of Public Works and Facilities and wastewater permits from the County Environmental Health Division.

## 4.2 APPROVALS ISSUED BY OTHER AGENCIES

The proposed project would require the following actions by entities other than Placer County:

- Clean Water Act Section 404 permit amendment for stream crossings at Raccoon Creek and other streams (United States Army Corps of Engineers);
- Endangered Species Act Section 7 Consultation (United States Fish and Wildlife Service);
- Clean Water Act Section 401 Water Quality Certification amendment (Regional Water Quality Control Board – Central Valley Region);
- Clean Water Act Section 402 National Pollutant Discharge Elimination System permit (Regional Water Quality Control Board – Central Valley Region);
- Streambed Alteration Agreement amendment for stream crossings (California Department of Fish and Wildlife); and
- Encroachment permit for any construction within the floodplain of Raccoon Creek (Central Valley Flood Protection Board).

# ATTACHMENT B

2018 Scoping Meeting Sign-in Sheets

# Placer County Community Development Agency

## Environmental Coordination Services

# Hidden Falls Regional Park Expansion

## Subsequent Environmental Impact Report Scoping Meeting Attendance

**Thursday, June 14th, 2018**

| Name | Address and Organization (If Applicable) | Email Address |
|---|---|---|
| Jim + Jane Goddard | 11400 LONE STAR Rd, Auburn | TERESAjanesu@gmail.com |
| Mike Lutzker | 4985 Bell Rd. Auburn | MLLutzker@aol.com |
| Anita Wise | 6125 View Way | anitamariewise@gmail.com |
| Brian M Wise | 6125 View Way | BRIANMARKWISE@GMAIL.COM |
| JOAN JERNEGAN/BARRY CARR | 6195 VIEW WAY | jernegan95602@gmail.com |
| Sue Hall | 4990 Bell Rd | suehall@gotoky.com |
| Nancy Halcomb | 5600 Upper RIDGE Way | none |
| JUDY ISAMAN | 4985 BELL ROAD | JGISAMAN@AOL.COM |
| | | |

# Placer County Community Development Agency

## Environmental Coordination Services

# Hidden Falls Regional Park Expansion

## Subsequent Environmental Impact Report Scoping Meeting Attendance

**Thursday, June 14th, 2018**

| Name | Address and Organization (If Applicable) | Email Address |
|---|---|---|
| Bart Rund | 10800 CRAMER RD. AUBURN | brund@ssctv.net |
| Diane Dolley | 9300 CRAMER RD. AUBURN | Dolley24@earthlink.net |
| Colleen Conley | 9775 Heidi Way | cconley@GoLyon.com |
| DAVID LEE FRASER | 9220 CRAMER RD | PROF.DLF72@GMAIL.COM |
| KAREN LEE BUEHLER | 9220 CRAMER RD | mtc_Kbuehler@yahoo.com |
| Maureen Henderson | Loomis Basin Horsemen's | mmhenderson@hotmail.com |
| TERESA + MIKE MUSCARELLA | 11400 CRAMER RD | TRMDESIGNS@YAHOO.COM |
| Lorrie Lewis | none | LorrieLewis6@gmail.com |

# Placer County Community Development Agency

## Environmental Coordination Services

# Hidden Falls Regional Park Expansion

## Subsequent Environmental Impact Report Scoping Meeting Attendance

**Thursday, June 14th, 2018**

| Name | Address and Organization (If Applicable) | Email Address |
|---|---|---|
| CHARLEY D. SMITH | 3782 BANKHEAD RD | LOOMIS, CA. 95650 |
| JAMES Wedde | 5150 Bell Rd | Auburn CA 95602 |
| ROBERT J FRY | 5401 BELL RD | AUBURN RD 95602 |
| Delane Ruud | 10800 Cramer Rd | Auburn, CA 95602 |
| Mike Davenport | 4591 Bell Rd | |
| PAM HART | 10395 Bluehaven Ct | Auburn CA 95602 pamula1@hotmail.com |
| Verna Coley | 5140 Mt. Pleasant Rd | janeodey@gmail.com |
| Bob Kauerdust | 5140 Mt Pleasant Rd | Happyminer@hotmail.com |



OVER

| Name | Address and Organization (If Applicable) | Email Address |
| --- | --- | --- |
| Larry & Christine Simmons | 4844 Bell Rd, Auburn | simmauburn@aol.com |
| KJ + Janet Quarry | 5495 Bell rd Auburn | KNJ Quarry@infostations.com |
| Ray Arakaki | 5809 Bell Rd. Auburn | chevy2000@hughes.net |
| DAVE WERKLEY | 11572 QUARTZ DR AUB | dave signartist@yahoo.com |
| Eric Muff | 7105 Superior Town Rd Line. | esmuff88@gmail.com |
| MICHAEL BLACKBURN | 7055 DGHill Rd Auburn | MJ BLACKBURN@HOTMAIL.com |
| Konrad & Bonnie Allert | 6005 Garden Bar Rd. | konrad.allert@gmail.com |
| Joel & Erica Houston | 11080 Cramer RD | Joelhouston85@Yahoo.com |
| John & Ginny Barnes | 5355 Bell Rd. | ~~barnes74@gmail~~ barnesyard74@gmail |
| Greg Tarricco | 5751 JOHNSON DR. LINCOLN | gregta@rocbbaten.com |
| | | |
| | | |
| | | |
| | | |

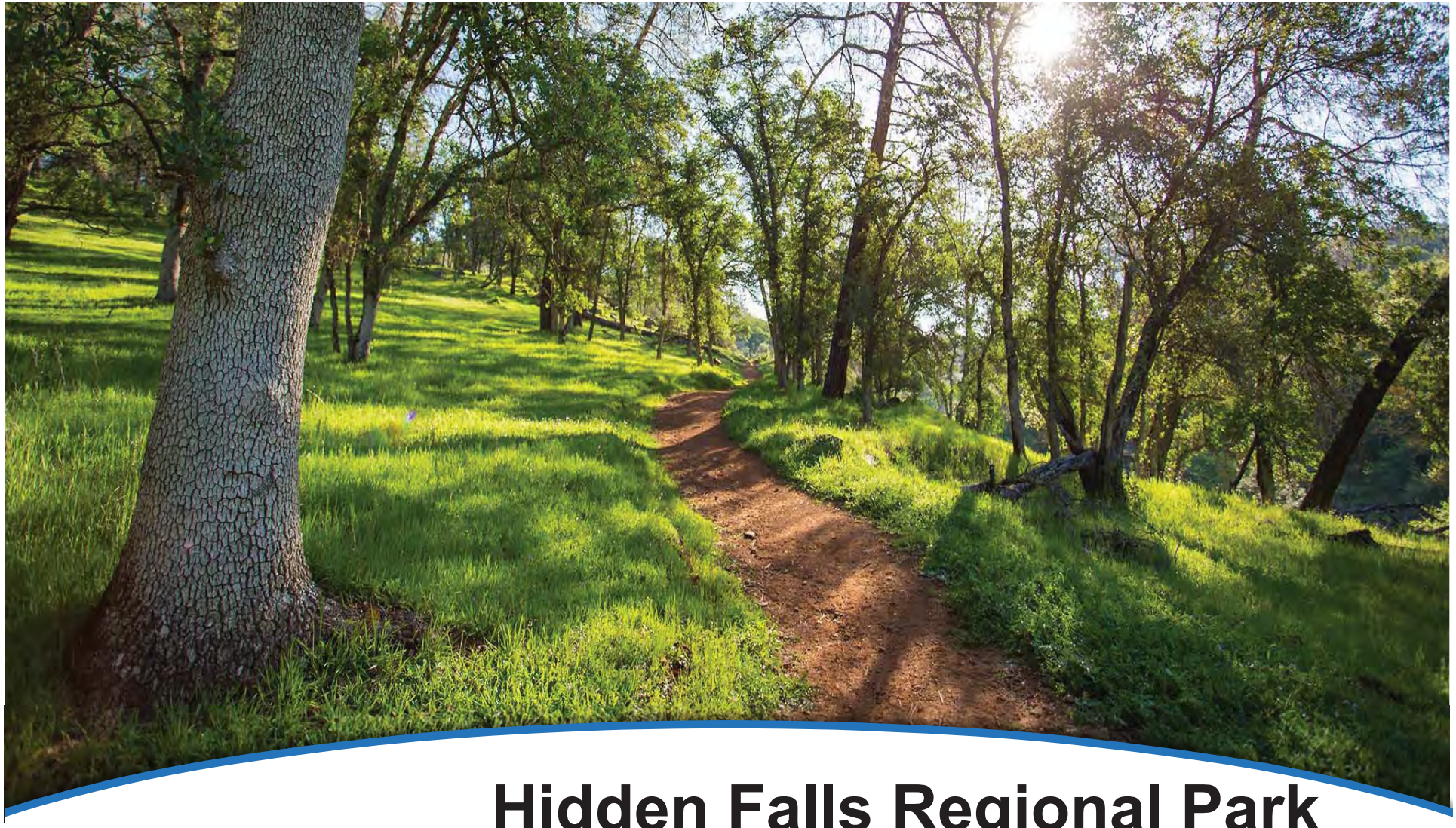
| Name | Address and Organization (If Applicable) | Email Address |
|---|---|---|
| JAMES LEIDIGH | 9845 SPYGLASS CIR. AVCSD | jimleidigh@gmail.com |
| Keith Wenger | 4455 Gambit Dr, Auburn, CA 95603 | keithe@keithwenger.com |
| RON PAITICH | 5841 BELL, 95602 | RPAITICH@GMAIL.COM |
| Lynn Gaffney | 4961 Bell Rd 95602 | lynn.gaffney13@gmail.com |
| WENDY BOUCHER | 4525 BELL RD 95602 | wendy@eboucher.com |
| ROBERT H. SYDNOR | | RHSydnor@aol.com |
| ETHAN NOTO | 9200 CRAMER RD. | ETHAN@ENDSTUDIO.COM |
| DAVE + Aimee Rohrer | 8880 Vista Bella Dr | aimeemom@emistycreek.com |
| LON HANKE | | LONHANKE@gmail.com |
| Marvin Curry | 4855 Bell Road | jumate3@yahoo.com |
| Cynthia Elliott | 8405 State Hwy 193 Newcastle CA 95658 | cynthiacooks@msn.com |
| ROGER WOFFORD | 4965 BELL RD | WRWOFFORD@HUGHES.NET |
| | | |

| Name | Address and Organization (If Applicable) | Email Address |
|---|---|---|
| Curt Wurst | 9455 Orr Creek Ln | jawurst@yahoo.com |
| June Wurst | 9455 Orr Cree Ln | jawurst@yahoo.com |
| Michael Watson | 5555 Fawnridge Rd. | mbwatson47@gmail.com |
| Louis Salatino | 10111 Ranch Rd., Aub. | salatinolou@gmail.com |
| Carol Salatino | 10111 Ranch Rd., Aub. | " " " " |
| Sadie Caswell | 6599 CURTALA RANCH Rd Auburn | thecaswells1@comcast.net |
| JUDI BLY MAGAW | 4870 WISE RD LINCOLN | |
| DAN MAGAW | | |
| STEVE BERRY | 4712 HOWE LN AUBURN | NOMATTAN@SBCGLOBAL.NET |
| DAVID EDRIS | 4040 BELL RD. AUBURN | DAVEEDRIS ~~DAVE.EDRIS~~@GMAIL.COM |
| Nathan Giguiere | 6215 Viewridge Dr. Auburn | Auburn Valley HOA VP giguiere@gmail.com |
| Andria Giguiere | 6215 Viewridge Dr Auburn | |
| Jean & Jim Piette | 5395 Bell Rd. | jean39.piette@gmail.com |

| Name | Address and Organization (If Applicable) | Email Address |
| --- | --- | --- |
| Robert + Karry Bennett | 9700 upper Valley Rd. | bnntt978@aol.com |
| Mike Gruber | 4325 Miller Oak Drive | gruberelectric@earthlink.net |
| MICHAEL LAKE | Box 7997 AUBURN | MMLAKE@SBCGLOBAL.NET |
| Ron CEAVER | 5785 Lone Oak Valley Rd | CARON@foothill.net |
| CAROLYN WEAVER | 5785 Lone Oak Valley Rd | CARON@foothill.net |
| Janeen Steinheimer | 5705 Fawnridge Rd | janeensteinheimer2060@gmail.com |
| Tom & Dianne Miele | 412 Wetlands Edge, 94503 | tommymiele@yahoo.com |
| KEVIN BORDEN | 10300 BLUE HERON CT. | KBORDENCASH@GMAIL.COM |
| michele Calthi | 4984 Bell RD | blackvelvetewinery@gmail.com |
| Debbie Shepherd | 4855 Bell Rd | debbies@sierrabg.com |
| Stacey Dalton | 10245 Ranch Rd. | SVanpelt@hotmail.com |
| Scott Dalton | 10245 Ranch Rd. | |
| PAUL HENDRICKS | 4925 BELL RD | HENDRICKS77777@YAHOO.COM |
| Carolyn Hendricks | 4925 Bell RD | Carolynmh333@gmail.com |

# ATTACHMENT C

Scoping Meeting Presentation



# Hidden Falls Regional Park Trails Network Expansion Project

June 14, 2018 Public Scoping Meeting

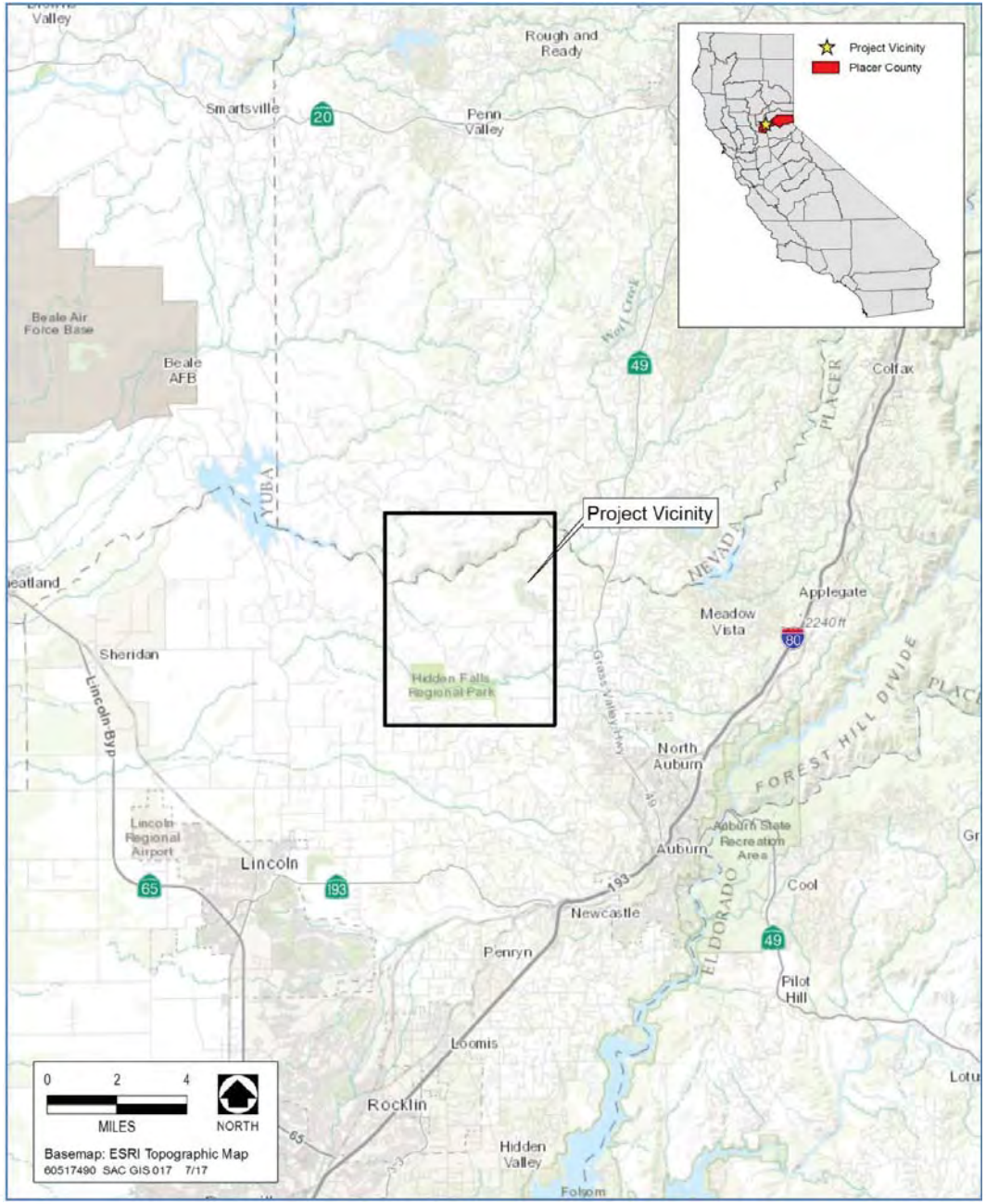
# Purpose and Format

- Scoping – Are we asking the right questions?

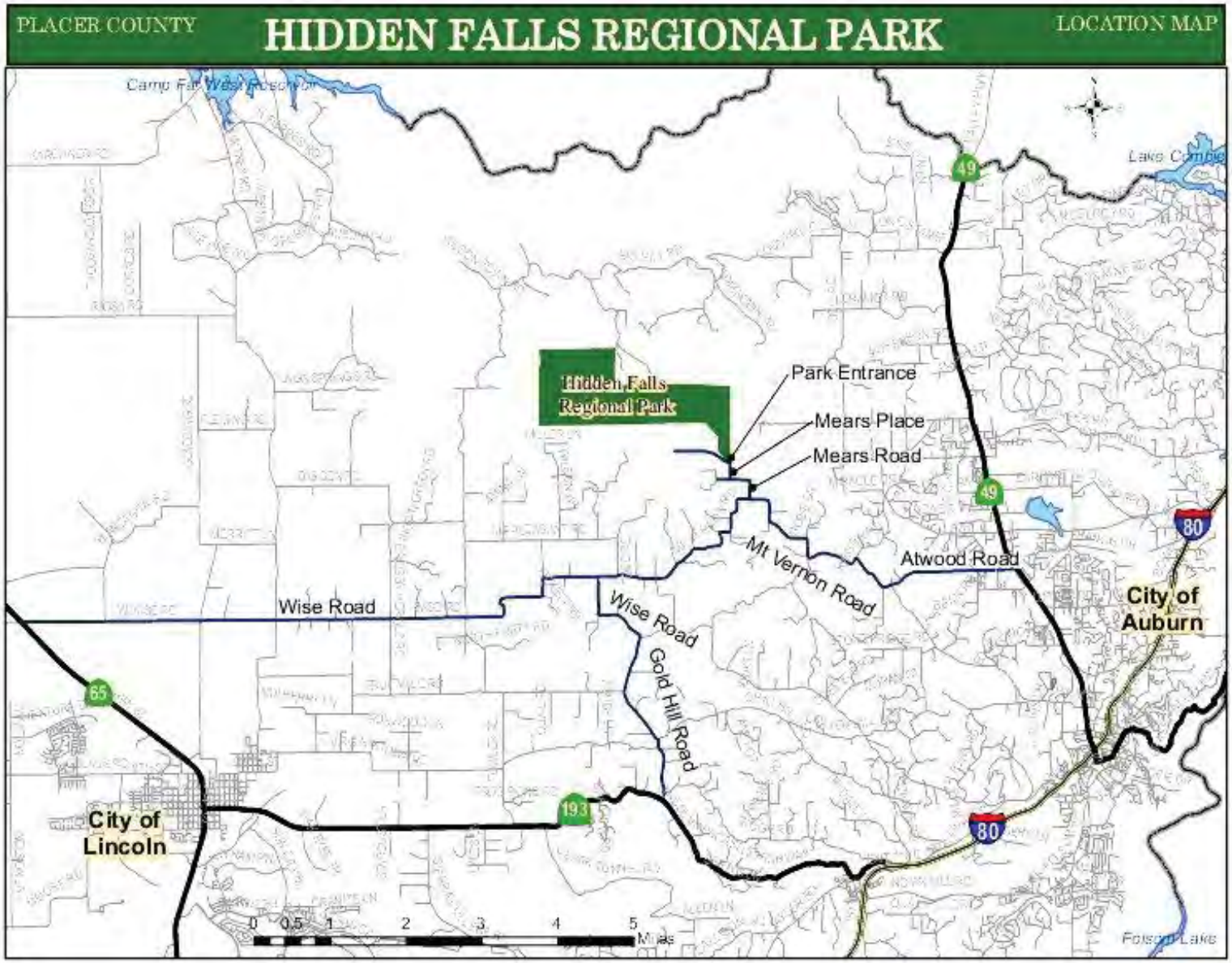
- Format
  - 6:00 to 8:00
  - 2 minute comments
  - Written comments
  - Former comments still included

COUNTY OF Placer

# Hidden Falls Regional Park Trails Network Expansion Project - Location Map



# Hidden Falls Regional Park - Current Area Open to Public

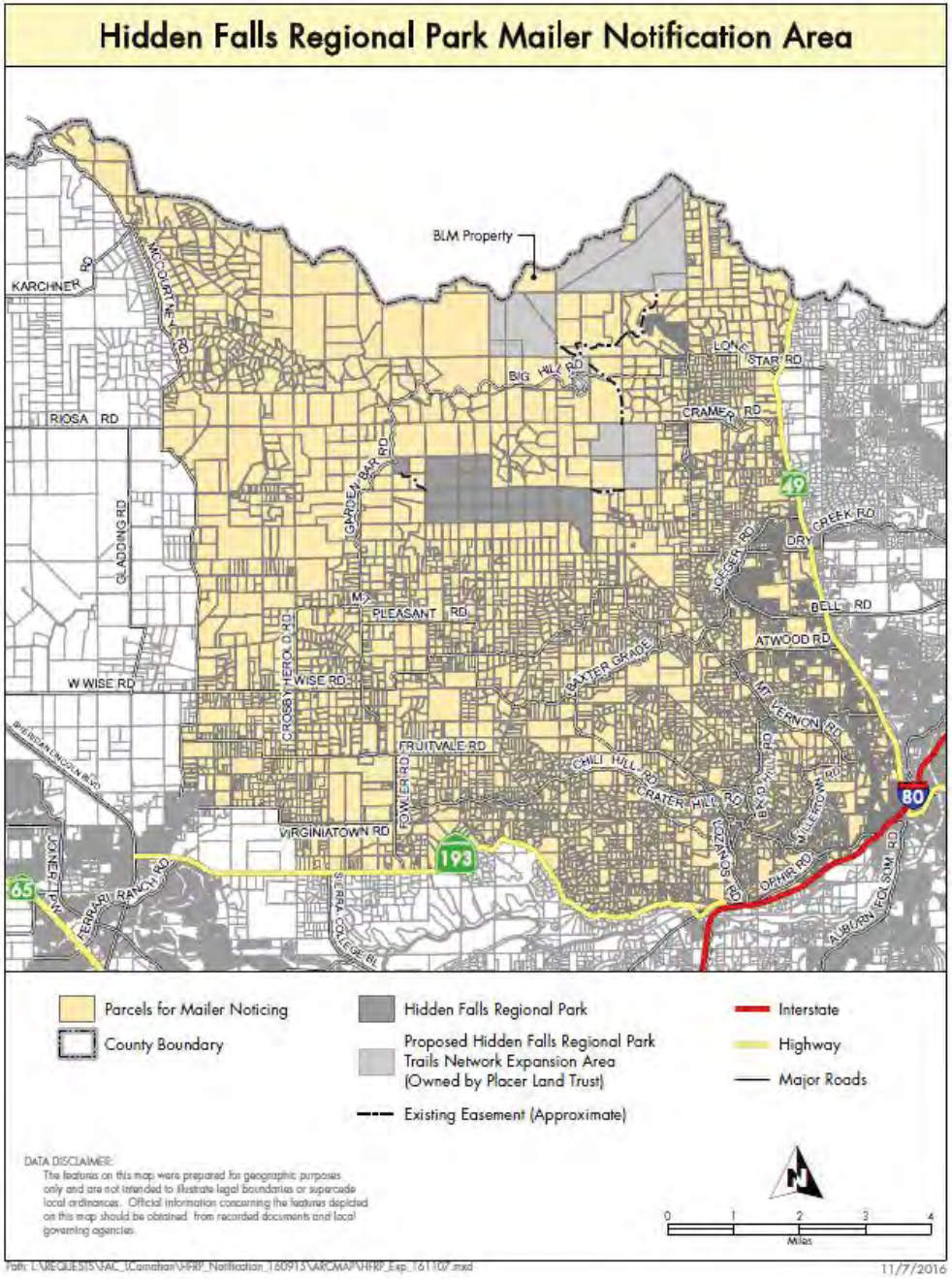


# History & Process

- 2006 – 220 acres of Hidden Falls Opens
- 2013 – 1,200 acres opens
- February 2014 – Sharp visitation increase
- 2014 to Present – Visitation management – Mears Drive
  - No – parking zones
  - Media
  - Cameras
  - Reservation System
- 2017 – Park & Trail Master Plan surveys

County of Placer

# Public Notification of the Meeting



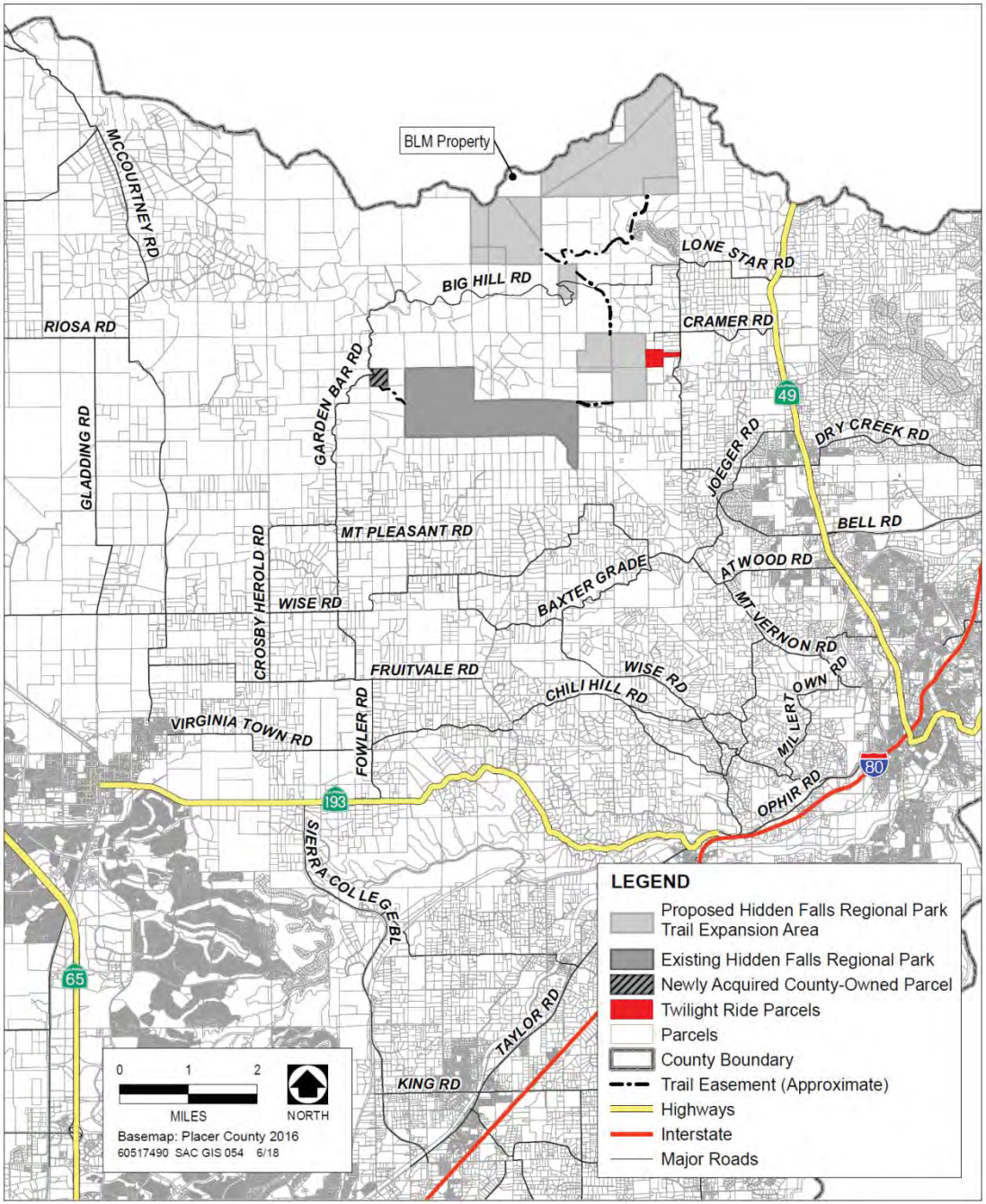

COUNTY OF Placer

# History & Process

- Fall 2016– Mailer sent to over 6,000 people
- January 31– March 1 2017 - First NOP
- February 21, 2017 – First Scoping Mtg
- May 22, 2018 – Twilight Ride Purchase & Sale Agreement – Board of Supervisors
- June 4 – July 6 2018 - Revised NOP – Comment period
- Fall 2018 – Draft EIR – Next Comment Period

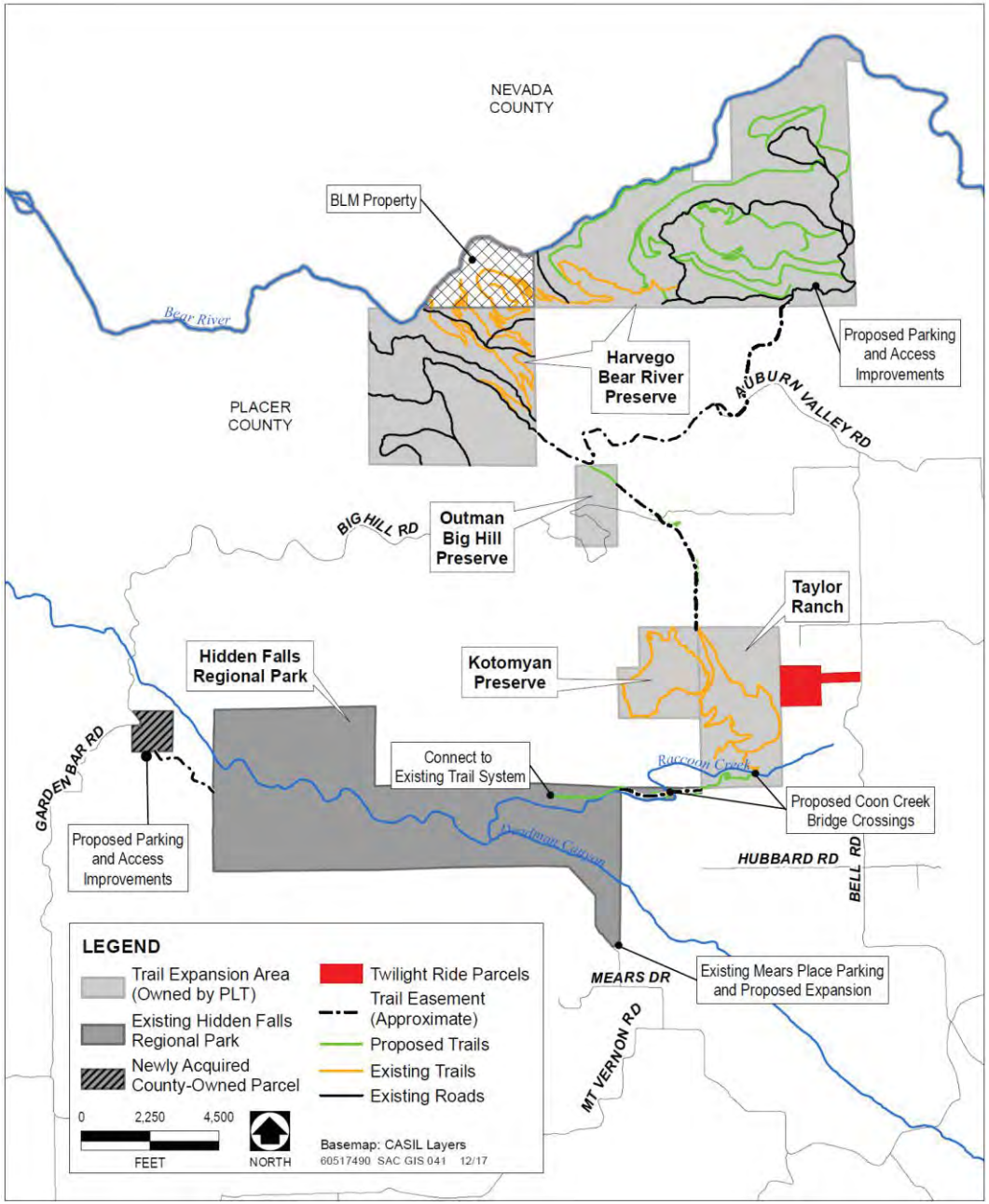
County of Placer

# Hidden Falls Regional Park Proposed Trail Expansion Project



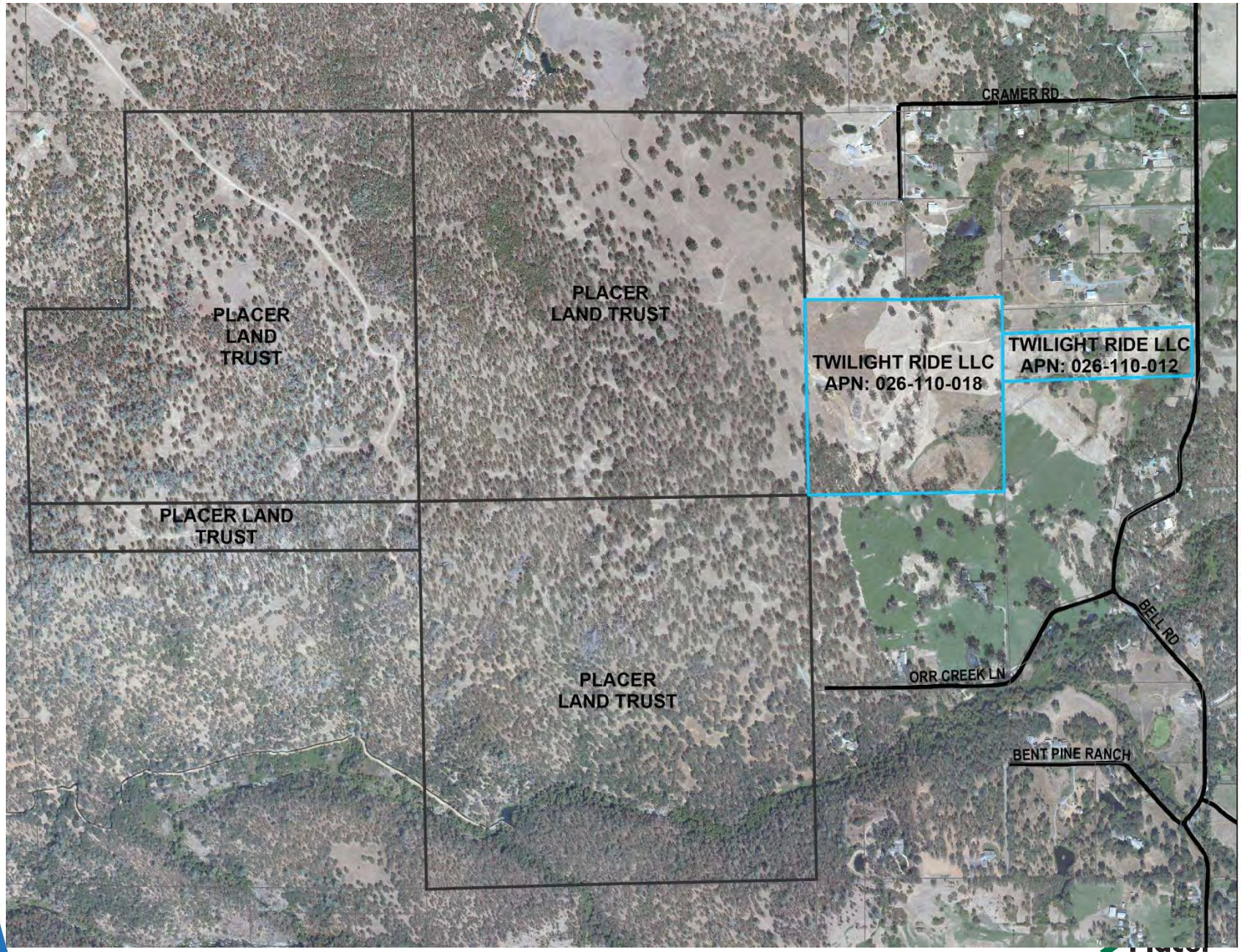

COUNTY OF Placer

# Hidden Falls Regional Park Proposed Trail Expansion Project




COUNTY OF Placer

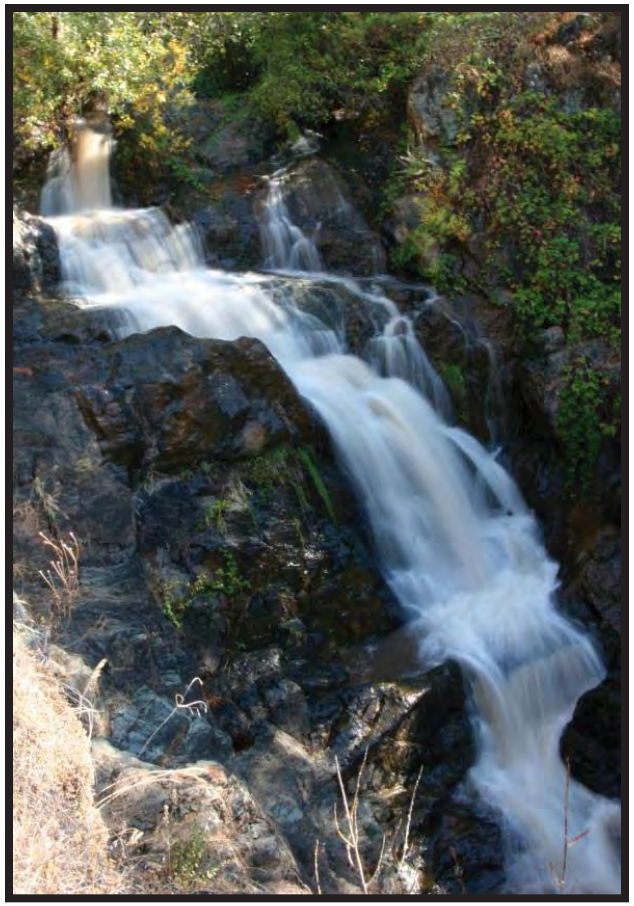
# Twilight Ride Property



# Hidden Falls Regional Park
# Proposed Trail Expansion Project

## Potential Impacts to be analyzed in SEIR:

- Aesthetics
- Agriculture and Forestry
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services
- Traffic and Transportation
- Utilities and Service Systems
- Cumulative Impacts



County of Placer

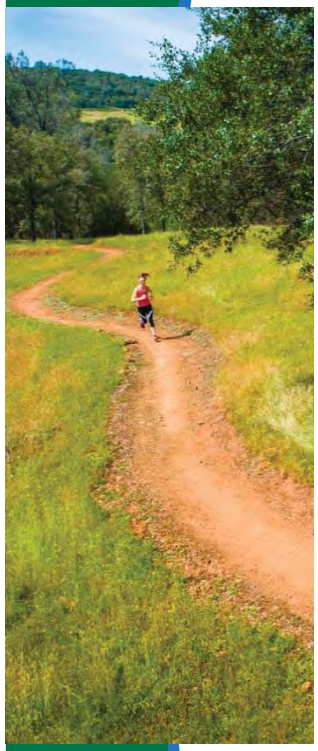
# Hidden Falls Regional Park
# Proposed Trail Expansion Project

## Impacts determined to be Less Than Significant, not to be analyzed further in the SEIR:

- Population, Employment and Housing
- Mineral Resources
- Recreation

County of Placer

# Hidden Falls Regional Park
# Proposed Trail Expansion Project



## Next Steps:

- NOP Released (June 5 – July 6)
- Technical/Environmental Studies - finish (Spring/Summer 2018)
- Draft SEIR – Fall 2018
- Draft SEIR (45-day public review) – Fall 2018)
- PC Hearing on Draft EIR
- MAC
- Final SEIR (December 2018/January 2019)
- Planning Commission Hearing for Use Permit/Certification of SEIR

County of Placer

# Submit Comments

- At today's meeting

- In writing by July 6, 2018 and addressed to:

  Shirlee Herrington
  Environmental Coordination Services
  3091 County Center Drive, Suite 190
  Auburn, CA 95603

- Via email at sherring@placer.ca.gov

Additional project information can be obtained at the following website:

http://www.placer.ca.gov/departments/communitydevelopment/envcoordsvcs/eir/

County of Placer

# Opportunities for Public Input

- Comment Period (Ends July 6)
- Draft EIR Circulation (45-day public review period)
- Draft EIR Hearing (Planning Commission)
- Any person who submits written or oral comments on the Draft EIR will receive a formal response to their comments and a copy of the final EIR
- North Auburn Municipal Advisory Council
- Planning Commission Hearing (Use Permit/Certification of SEIR)

COUNTY OF Placer

# SEIR Scoping Comments?

COUNTY OF Placer®

# Hidden Falls Regional Park Trails Network Expansion

# ATTACHMENT D

Speaker Sign-in Sheets

# SIGN – IN SHEET

Placer County Department of Facility Services

HIDDEN FALLS REGIONAL PARK
PUBLIC FORUM

Date: Thursday, June 14th, 2018
Time: 9:00 A.M.
Location: CDRA/Planning Commission Hearing Room
Purpose: Public Discussion re: Hidden Falls Parking/Expansion

| NAME | ADDRESS | PHONE # | E-MAIL |
|---|---|---|---|
| Lorne Lewis | 10245 Wise Rd | 530/885-3410 | |
| Sue Ball | 4990 Ball Rd | 823-0103 | |
| Angela Wilkins | 8220 Hubbard Rd | 530 305 3731 | teenawilkins@gmail.com |
| Mike Lotzke | 4985 Bell Rd | 916-531-8904 | mllotzke@aol.com |
| Patrick Ferreira | 4609 Ball Rd | 530-305-4060 | |
| Ty Rowe | 1134 High St | 530.558.5069 | |
| Dayna Bergeson | 9911 Quail Hill Dr | 916-663-4352 | |
| Keith Wenger | 4455 Gamlish Dr | 916-801-4445 | keith@keithwenger.com |
| Rich Lewis | 6245 Wise Rd | 916-804-3410 | |
| Stacy Dutton | 10245 Ranch Rd. | 530-848-2099 | |
| Frank Pratt | 6725 Nicolaus Co | 530-320-8747 | |
| Mary Isaman | 4985 BELL | 916 648-1055 | |
| Bart Ryan | 10800 Cramer Rd. | 530 823 1368 | |
| CHARLES SMITH | 3782 BANKHEAD RD. LOOMIS, CA 95650 | | |
| JUDI MAGAW | 4870 WISE RD LINCOLN CA 95648 | | |
| Erica Houston | 11080 Cramer rd | 530-401-1609 | |
| Nathan Gigiuz | 6015 Viewridge Dr. | 916-248-6312 | |
| MARK HOFFMAN | 10380 BLUE HERON CT | 916-548-1089 | MORTONHOME@yahoo.com |
| Candace Morton | 10160 Couple Ridge Ct | 530-945-5582 | |
| ETHAN NOTO | 9200 CRAMER RD. | 916-402-8893 | ETHAN@ENDSTUDIO.COM |

# SIGN – IN SHEET

Placer County Department of Facility Services

HIDDEN FALLS REGIONAL PARK
PUBLIC FORUM

---

Date: Thursday, June 14th, 2018
Time: 9:00 A.M.
Location: CDRA/Planning Commission Hearing Room
Purpose: Public Discussion re: Hidden Falls Parking/Expansion

| NAME | ADDRESS | PHONE # | E-MAIL |
|---|---|---|---|
| Diane Ruud | 10800 Garner Rd | (530) 885-3397 | DRuud@inreach.com |
| Jackie Casnell | 6599 CURTOLA RANCH RD | 6507592322 | thecasnells1@comcast.net |
| GREG TARICCO | 5751 JOHNSON DR | 916 303 0132 | gregta@roebbeler.com |
| DAVID FRASER | 9220 CRAMER | 530 440-1870 | PROF.DLF72@GMAIL.COM |
| KEVIN BOEBERL | 10200 BLUE HERON CT | 530-305-3402 | KBOEBERL@ASHRGROUP.COM |
| Jean Piette | 5395 Bell Rd. | 530-888-1340 | jean39.piette@gmail.com |
| Ginny Barnes | 5355 Bell Rd | 823-8887 | ginny644@gmail.com |
| Pam Hart | 10395 Blue Heron ct | 530-823-6799 | pamilla1@hotmail.com |
| Linda Tarico | 5751 Johnson | | |
| Michele Calvi | 4984 Bell Rd | 6023159000 | blackvetteWinery@gmail.com |
| Ralph Franzen | 6445 Fairway | | boardmanpainter@att.net |
| WALLY GAFFNEY | 4901 Bell Rd. / Auburn | | Wgaffney37@gmail.com |
| Kirtis Newberry | 10225 Mallard Way | Aub | KIRTISNEWBERRY@gmail.com |
| Shawn & Julie Lenz | 7710 Mears Dr. | Auburn | lenzres2@gmail.com |
| | | | |
| | | | |
| | | | |

# ATTACHMENT E

Written Comments

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

**CENTRAL VALLEY FLOOD PROTECTION BOARD**
3310 El Camino Ave., Ste. 170
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682

RECEIVED
JUN 18 2018
CDRA

June 14, 2018

Ms. Shirlee Herrington
Placer County Community Development Agency
3091 County Center Drive, Ste. 190
Auburn, California 95603

Subject: Hidden Falls Regional Park Trails Network Expansion Project, Notice of Preparation, SCH Number: 2007062084

Location: Placer County

Dear Ms. Herrington,

Central Valley Flood Protection Board (Board) staff has reviewed the subject document and provides the following comments:

The proposed project is within Coon Creek, a regulated stream under Board jurisdiction, and may require a Board permit prior to construction.

The Board's jurisdiction covers the entire Central Valley including all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and the Tulare and Buena Vista basins south of the San Joaquin River.

Under authorities granted by California Water Code and Public Resources Code statutes, the Board enforces its Title 23, California Code of Regulations (Title 23) for the construction, maintenance, and protection of adopted plans of flood control, including the federal-State facilities of the State Plan of Flood Control, regulated streams, and designated floodways.

Pursuant to Title 23, Section 6 a Board permit is required prior to working within the Board's jurisdiction for the placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee.

Permits may also be required to bring existing works that predate permitting into compliance with Title 23, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the works has not been clearly established or ownership and use have been revised.

Other federal (including U.S. Army Corps of Engineers Section 10 and 404 regulatory permits), State and local agency permits may be required and are the applicant's responsibility to obtain.

Board permit applications and Title 23 regulations are available on our website at http://www.cvfpb.ca.gov/. Maps of the Board's jurisdiction are also available from the California Department of Water Resources website at http://gis.bam.water.ca.gov/bam/.

Please contact James Herota at (916) 574-0651, or via email at James.Herota@CVFlood.ca.gov if you have any questions.

Sincerely,

Andrea Buckley

Andrea Buckley
Environmental Services and Land Management Branch Chief

cc: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

PLACER COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Ken Grehm, Executive Director
Brian Keating, District Manager
Brad Brewer, Development Coordinator

July 3, 2018

Shirlee Herrington
Placer County
Planning Services Division
Community Development Resource Agency
3091 County Center Drive
Auburn, CA 95603

**RE: Revised Notice of Preparation of a Subsequent Environmental Impact Report for Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project**

Shirlee:

We have reviewed the Revised Notice of Preparation (NOP) of a Subsequent Environmental Impact Report (EIR) dated June 4, 2018 for the subject project and have the following comments.

The proposed project has the potential to create the following impacts:

a) Increases in peak flow runoff downstream of the project area.

b) Overloading of the actual or designed capacity of existing stormwater and flood-carrying facilities.

c) The potential to place structures and/or improvements within a flood hazard area.

Future EIRs must specifically quantify the incremental effect of the above impacts due to this plan, and must propose mitigation measures where appropriate.

Please call me at (530) 745-7541 if you have any questions regarding these comments.

Brad Brewer, M.S., P.E., CFM, QSD/P
Development Coordinator

t:\dpw\fcd\development review\letters\planning\cn18-65 hidden falls exp rev nop fo sub eir.docx

Pacific Gas and Electric Company

Plan Review Team
Land Management

PGEPlanReview@pge.com

*6111 Bollinger Canyon Road 3370A*
San Ramon, CA 94583

June 6, 2018

Shirlee Herrington
County of Placer
3091 County Center Drive, Suite 190
Auburn, CA 95603

Ref: Gas and Electric Transmission and Distribution

Dear Shirlee Herrington,

Thank you for submitting Hidden Falls Regional Park plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.

2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.

3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

**Attachment 1 – Gas Facilities**

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: http://usanorth811.org/wp-content/uploads/2017/05/CA-LAW-English.pdf

1. Standby Inspection: A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.

2. Access: At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

3. Wheel Loads: To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. Grading: PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.

5. Excavating: Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [24/2 + 24 + 36/2 = 54] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible (90° +/- 15°). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line ‘kicker blocks’, storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E’s ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4’) in height at maturity may be planted within the easement area.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an “Impressed Current” cathodic protection system. Any proposed facilities, such as metal conduit, pipes,

service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

**Attachment 2 – Electric Facilities**

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING."**

2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.

3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&'s facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.

4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 15 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.

5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.

6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.

7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.

8. Streets and Roads: Access to facilities to be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for

proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (https://www.dir.ca.gov/Title8/sb5g2.html), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

## Shirlee Herrington

**From:** Shively, Laura B CIV USARMY CESPK (US) <Laura.B.Shively@usace.army.mil>
**Sent:** Thursday, June 07, 2018 8:23 AM
**To:** Shirlee Herrington; Placer County Environmental Coordination Services
**Subject:** Hidden Falls Regional Park Trails Network Expansion Project - Revised Notice of Preparation of a Subsequent EIR (UNCLASSIFIED)
**Attachments:** NOP.PDF

CLASSIFICATION: UNCLASSIFIED

Good morning,

My apologies that this is a day after the end of the comment period. I am following up on the attached NOP for the Hidden Falls Regional Park Trail Network Expansion project. The project would expand the existing trails system and facility. I noted that the project includes several new bridges over waterways.

Based on the information provided in the NOP, the activities may require a Department of the Army permit pursuant to Section 404 of the Clean Water Act (CWA). The Corps regulates the discharge of fill material into waters of the U.S. under the CWA. I would recommend that an aquatic resource delineation be completed for the project area to determine whether the construction of any of the new facilities, trails, or bridges would result in a discharge of fill material and require a permit.

Sincerely,

Laura Shively
Senior Project Manager
California North Section
Regulatory Division
U.S. Army Corps of Engineers, Sacramento District
(916) 557-5258

We want your feedback! Take the survey: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey
<http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey>

CLASSIFICATION: UNCLASSIFIED

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CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

**Central Valley Regional Water Quality Control Board**

28 June 2018

Shirlee Herrington
County of Placer
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

CERTIFIED MAIL
91 7199 9991 7039 6992 5611

**COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE ENVIRONMENTAL IMPACT REPORT, HIDDEN FALLS REGIONAL PARK TRAILS NETWORK EXPANSION PROJECT, SCH# 2007062084, PLACER COUNTY**

Pursuant to the State Clearinghouse's 5 June 2018 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Environment Impact Report* for the Hidden Falls Regional Park Trails Network Expansion Project, located in Placer County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

## I. Regulatory Setting

### Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources

Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

**Antidegradation Considerations**

Trails Network Expansion Project
All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

## II. Permitting Requirements

**Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit

requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

**Phase I and II Municipal Separate Storm Sewer System (MS4) Permits**[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

**Industrial Storm Water General Permit**

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

**Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

**Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

**Waste Discharge Requirements – Discharges to Waters of the State**

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

**Dewatering Permit**

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver)
R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

**Regulatory Compliance for Commercially Irrigated Agriculture**

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/for_growers/apply_coalition_group/index.shtml or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

**Low or Limited Threat General NPDES Permit**

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from*

*Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

**NPDES Permit**

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.

Stephanie Tadlock

Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Loomis Basin Horsemen's Association
**P.O. Box 2326 Loomis CA 95650**
Dedicated to Trail, the Arena at the Park
Traylor Ranch and the Rural Lifestyle

July 2, 2018

Shirlee Herrington
Environmental Coordination Services
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Hidden Falls Regional Park Trails Network Expansion Project

Dear Ms. Herrington:

Representatives of our organization were present at the June 14 NOP meeting held at the County Offices. Due to the hostile environment at that meeting, we felt it would be more appropriate to submit our comments in writing. Andy Fisher spoke at the NOP meeting and assured the attendees that any prior comments, verbal or written, are contained in the record and need not be resubmitted. On February 28, 2017, Loomis Basin Horsemen's Association submitted a written letter in full support of the Expansion Project to your attention. I read a written statement into the record on behalf of LBHA at the February 2017 public hearing. We have also previously submitted to Andy Fisher a copy of the LBHA Mountain Bike Trail Policy. If you would like additional copies of these documents, please let me know and I will be happy to provide them.

Providing another access point with sufficient parking to Hidden Falls will greatly reduce the pressure placed on the Mears Place access road and the people who live there. Surrounding property owners to projects such as the Hidden Falls Expansion are always opposed when these types of projects are submitted for public comment. However, there are parks all over the state and country where there is residential area in close proximity to a park. A perfect example of this is the Annadel State Park situated at the northern edge of Sonoma Valley and is adjacent to Spring Lake Regional Park in Santa Rosa. Road access to Annadel is through an upscale residential area. The property owners in close proximity to the Hidden Falls Expansion object that Hidden Falls is a regional park and should not cater to users outside Placer County. It is true than Hidden Falls draws users from many different areas, however, that does not mean than Placer County residents are not also frequent users of the park.

Those of us in support of the Expansion Project have listened to the objections by surrounding property owners. The majority of our members also live in rural or semi-rural areas and understand the concerns voiced by those in opposition to this expansion. While we have an understanding of their concerns, we also feel that parcels which have been acquired over the years by the Placer Land Trust are intended for public use. The purpose of these acquisitions is to provide outdoor recreation to the public.

As the Sacramento Valley expands and our suburban areas grow, the demand for open space continually increases. There is not much purpose to acquiring lands for public use if we are unable to gain access to them. Having access is tantamount to the future expansion of Hidden Falls Regional Park.

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We look forward to seeing that the obstacles raised in opposition to the park expansion may be overcome and that the park will be able to proceed as planned.

Very truly yours,

Maureen Henderson

Maureen Henderson, Trails Liaison
Loomis Basin Horsemen's Association

July 10, 2018

Ms. Shirlee Herrington
County of Placer
Environmental Coordination Services,
Resources Agency

3091 County Center Drive, Suite 190
Auburn, CA 95603
Submitted via email to cdraecs@placer.ca.gov

Re: Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project - Support

Dear Ms. Herrington:

The Folsom Auburn Trail Riders Action Coalition (FATRAC) strongly supports the proposed Hidden Falls Regional Park Trials Network expansion, including the parking expansion near Bell Road (aka "Twilight Ride Property") as well as the potential horse-boarding. This expansion of an existing and popular trail system would immensely improve the recreational opportunities in the area, reduce safety concerns and alleviate congestion at other nearby trailheads.

FATRAC is a non-profit, volunteer based trail advocacy organization, founded in 1988, representing the Sacramento, Folsom, Auburn and surrounding areas that include portions of Placer, El Dorado, and Yolo Counties. While FATRAC's mission is to support trail access for all user groups, but most specifically, FATRAC's core mission is to advocate for off-road bicycling (aka mountain biking). FATRAC members have donated thousands of hours of volunteer services and have raised hundreds of thousands of dollars in donations and grants for trail projects since inception. FATRAC often partners with multi-user groups in the Auburn and Folsom Areas to build and maintain trails for all users. FATRAC has participated in several work days at Hidden Falls to build, maintain and improve trails over the past several and we look forward to continuing to assist Placer County with work on this project as well once it is underway..

FATRAC supports the improvement and expansion of the trail network in and around Hidden Falls including parking expansion near Bell Road (aka "Twilight Ride Property") as well as the potential horse-boarding. FATRAC recognizes several benefits including:

1) The area is a fantastic resource but currently suffers from lack of access associated with inadequate parking. Scenic vistas of different areas of the park abound and providing an alternate access point would facilitate spreading users out and reduce congestions. This park has proven its popularity over the past several years and this recreational resource must be managed to continue to meet that need.

2) Alleviate overcrowding at other area trails. Many of the area trails, especially those that allow mountain biking suffer from extremely heavy use due to the limited quantity. The Hidden Falls expansion project would spread area users out, reduce crowding on area trails and trailheads and make trail experiences for all users more enjoyable due to greater solitude.

3) Mountain biking is an extremely popular sport for all age groups in this area. Expansion of mountain bike legal trails in the area will minimize the temptation to explore trails where mountain biking is currently not allowed by other area land managers. Trail expansion will minimize (perceived and actual) user conflicts in the area by providing greater opportunities for solitude. Similar projects throughout the country have proven to be effective in this regard by providing excellent legal trail riding opportunities.

4) More singletrack is needed in the greater Aubrin area. This area is a hotbed for trail use in general and mountain biking in particular. However, trails of a technical nature are too few and far between. The Hidden Falls project should incorporate natural technical trail features, as suggested in many user responses to the recent Placer County Trails General Plan survey. Such areas features may be most appropriate in areas further from trailheads where more experienced trail users are more likely to venture and crowds will naturally be more dispersed. The Hidden Falls Expansion Project should meet this recreational need in the area.

For these reasons, we strongly support the Hidden Falls Trails Network Expansion Project including the parking expansion near Bell Road (aka “Twilight Ride Property”) as well as the potential horse-boarding and look forward to assisting with the project implementation phase through volunteer trail work days and/or fundraising efforts. If you have any questions or wish to discuss, feel free to contact me at mtwetter76@gmail.com or (916) 201-8337.

Sincerely,

Matt Wetter
FATRAC President

July 10, 2018

Ms. Shirlee Herrington
County of Placer
Environmental Coordination Services,
Resources Agency

3091 County Center Drive, Suite 190
Auburn, CA 95603
Submitted via email to cdraecs@placer.ca.gov

Re: Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project - Support

Dear Ms. Herrington:

The Folsom Auburn Trail Riders Action Coalition (FATRAC) strongly supports the proposed Hidden Falls Regional Park Trials Network expansion, including the parking expansion near Bell Road (aka "Twilight Ride Property") as well as the potential horse-boarding. This expansion of an existing and popular trail system would immensely improve the recreational opportunities in the area, reduce safety concerns and alleviate congestion at other nearby trailheads.

FATRAC is a non-profit, volunteer based trail advocacy organization, founded in 1988, representing the Sacramento, Folsom, Auburn and surrounding areas that include portions of Placer, El Dorado, and Yolo Counties. While FATRAC's mission is to support trail access for all user groups, but most specifically, FATRAC's core mission is to advocate for off-road bicycling (aka mountain biking). FATRAC members have donated thousands of hours of volunteer services and have raised hundreds of thousands of dollars in donations and grants for trail projects since inception. FATRAC often partners with multi-user groups in the Auburn and Folsom Areas to build and maintain trails for all users. FATRAC has participated in several work days at Hidden Falls to build, maintain and improve trails over the past several and we look forward to continuing to assist Placer County with work on this project as well once it is underway..

FATRAC supports the improvement and expansion of the trail network in and around Hidden Falls including parking expansion near Bell Road (aka "Twilight Ride Property") as well as the potential horse-boarding. FATRAC recognizes several benefits including:

1) The area is a fantastic resource but currently suffers from lack of access associated with inadequate parking. Scenic vistas of different areas of the park abound and providing an alternate access point would facilitate spreading users out and reduce congestions. This park has proven its popularity over the past several years and this recreational resource must be managed to continue to meet that need.

2) Alleviate overcrowding at other area trails. Many of the area trails, especially those that allow mountain biking suffer from extremely heavy use due to the limited quantity. The Hidden Falls expansion project would spread area users out, reduce crowding on area trails and trailheads and make trail experiences for all users more enjoyable due to greater solitude.

3) Mountain biking is an extremely popular sport for all age groups in this area. Expansion of mountain bike legal trails in the area will minimize the temptation to explore trails where mountain biking is currently not allowed by other area land managers. Trail expansion will minimize (perceived and actual) user conflicts in the area by providing greater opportunities for solitude. Similar projects throughout the country have proven to be effective in this regard by providing excellent legal trail riding opportunities.

4) More singletrack is needed in the greater Aubrin area. This area is a hotbed for trail use in general and mountain biking in particular. However, trails of a technical nature are too few and far between. The Hidden Falls project should incorporate natural technical trail features, as suggested in many user responses to the recent Placer County Trails General Plan survey. Such areas features may be most appropriate in areas further from trailheads where more experienced trail users are more likely to venture and crowds will naturally be more dispersed. The Hidden Falls Expansion Project should meet this recreational need in the area.

For these reasons, we strongly support the Hidden Falls Trails Network Expansion Project including the parking expansion near Bell Road (aka “Twilight Ride Property”) as well as the potential horse-boarding and look forward to assisting with the project implementation phase through volunteer trail work days and/or fundraising efforts. If you have any questions or wish to discuss, feel free to contact me at mtwetter76@gmail.com or (916) 201-8337.

Sincerely,

Matt Wetter
FATRAC President

7-5-18
RECEIVED
JUL 09 2018
CDRA

Shirlee Herrington,

I'm writting this letter opposing the proposed expansion of the Hidden Falls Regional Park. I live at 5809 Bell Rd. in the area where they want to expand the park and build parking areas for the park. This well bring more traffice and unwanted people to the area. My family and I have lived at this address since 1987. I came to Auburn in 1976, my family was born and raised here. Families here want the quiet and peacefull setting of the country. I went to the NOP scoping meeting on June 14, 2018, there were home owners there giving there commits opposing this park. This is a very serious issue about our way of life in this area. We were told this meeting was recorded, I wish you could here or read this meeting about the commits made, it's truly a violation of the way we want to live in this community.

Thank you.
Ray Arakaki

June 14, 2018

RE: Placer County to purchase 50 acres; Twilight Ride Property at 5345 Bell Road for more access to Hidden Falls Park.

Placer County Board of Supervisors,

I have lived on Bell Road since 1973. Are you the Board of Supervisors looking out for the citizens who elected you or are you looking to bring many from other areas to visit and spend money here? Just who are you representing?

My 2 parcels at 4990 Bell Road; Parcel # 076-020-069-000 and Parcel # 076-020-072-000 will be affected in a negative way. Why would the County plan and open a park without adequate parking and other facilities necessary to maintain Hidden Falls Park? The people near other entrances (Mears Rd.) are not happy, so you want to alginate another group of residents? MORE than one million to be spent on just the land for parking etc. Instead of investing in something that brings more people to the area. What about property tax relief? There are many places that OUR tax money could be used, instead of entertaining people that don't reside in this area.

There are reasons that we have moved to this area, one is to enjoy the rural setting. More people here mean more crime, more garbage, and more traffic which means increased danger of human started fires.

1. When we bought our house there was no approved gal dog kennel across from our property. Grandfathered in is a kennel permitted to have 15 dogs, in my backyard. I have voiced my displeasure to county and was scuffled from one Department to another; no resolution. I was told that is a wonderful kennel. Sorry that does not mitigate the noise; I hear dogs barking in my house with windows and doors closed.
2. Now my neighbor is putting in a winery. Ag zoning (changed) to grow grapes, manufacture wine, and then retail to sell the wine. I was never notified prior to approval of application that is directly adjacent to my property. Then they will be able to have large groups 6 times per year. Growing grapes is the only part that is Ag. Manufacturing and retail is not agriculture.
3. NOW the majority of the Board voted to allow a new parking area plus? This will increase the hazard of human started fires; there will be an increase in theft with vacant parked vehicles, trash along the road and parking area. Burglary could also be a problem as new people are introduced to the area...Not in my "backyard" I paid for my backyard.
4. I wonder why voters did not approve those very expensive buildings at DeWitt. Is it because we were not asked our opinion.

**Sue Ann Hall** *parcels: # 076-020-069-000 and Parcel # 076-020-072-000*

*4990 Bell Road / Auburn, CA 95602*

*(530) 823-0103 email:* suehall@gotsky.com

Sue Ann Hall

## Shirlee Herrington

**From:** lawzer@aol.com
**Sent:** Friday, June 15, 2018 10:58 AM
**To:** Shirlee Herrington
**Cc:** jaede@sbbmail.com
**Subject:** FOR Hidden Falls Expansion!

Please consider my voice and vote to Expand Hidden Falls for equestrian use! Placer County needs to accommodate we equestrian users of that wonderful park where horses, hikers, and nature lovers harmoniously recreate and enjoy the fruits of our taxpayer dollars put to good and necessary use! Thank you. Ann Rubenstein

## Shirlee Herrington

**From:** baker-anita <baker-anita@sbcglobal.net>
**Sent:** Sunday, June 17, 2018 9:24 PM
**To:** Shirlee Herrington
**Subject:** Hidden falls expansion

Hidden falls is my favorite riding trails. Hoping they can expand and keep all equestrians & hikers happy. I recommend these trails to our patients at my work quite often.. please let me know how i can support this expansion. Sincerely Anita Baker, yuba county sheriff's posse member.

Sent from my Sprint Samsung Galaxy S7.

Pamela Hart

10395 Blue Heron Ct

Auburn, CA 95602

APN: 076-030-026-000

June 25, 2108

Shirlee Herrington

Environmental Coordination Services

Community Development Resource Agency

3091 County Center Drive, Suite 190

Auburn, CA 95603

RE: Hidden Falls Regional Park – Scoping for Environmental Impact Report

Dear Shirlee,

I am a resident off of Bell Road. I feel the impact of this parking lot project will be detrimental to the Bell/Cramer/Lone Star area. I do not think that all the factors have been thoroughly addressed and hope that there will be consideration for the following:

1) Traffic – the access roads for this 50 acre project are not in any way adequate for the traffic being proposed for this site. Even now, the turns are scary with even a normal-sized vehicle, and, when adding horse trailers the accident factor rises significantly.

2) Bicycles – speaking of traffic – right now bicycles on these back country roads are an issue. When two cars pass – there is no room for the cyclists – let alone the required 4 feet. Even widening the roads to 18 feet will not accommodate cyclists.

3) Land Use –a) the County went through quite a turmoil regarding winery event usage. I believe the end result was that they could have events occasionally – but not every weekend. Now you are proposing land usage that is every day of the week – and every weekend – talk about traffic and disruption of rural life-style, this is beyond what any winery was proposing.

   b) It sounds like you are proposing access to Placer Legacy property – not Hidden Falls Regional Park property. It would seem inconsistent with the purpose of the Placer Legacy agenda to allow multiple roads and trails crisscrossing the wilderness, when the objective is to " preserve the diversity of plant and animal communities in the County and addresses a variety of other open space needs, from agriculture and recreation to urban edges and public safety. Placer Legacy will help maintain the County's high quality of life and promote economic vitality." If this space is developed along the line of Hidden Falls, it is not protecting wildlife as there must be disruption of undergrowth to create trails and to

protect from fires – which are 100% more likely as a result of introducing humans into the mix. It does also not promote public safety in any way as seen in the Mears Road situation with increased crime and traffic accidents. In fact – this is creating an "attractive nuisance" to which the County can be held liable ---oh, by the County, I mean us taxpayers. This attractive nuisance will invite the homeless population who can now access 'secret' places, bathe and defecate in streams, camp and start fires, etc. I can't imagine this is protecting the resources of Placer County in a positive way.

The Environment will not be protected as the horses bring in foreign substances in their feces.....a perfect breeding ground for seeds. That is how the Star Thistle was introduced to this area. The National Parks have an ordinance that require horses to only eat certain feeds that must be packed in, just because of this factor.

4) Improper use of funds – the funding mechanism is creative – but using a tree protection fund to cut down trees for a parking lot seems counter-logical to me. The inflated price is beyond logical and the money could be better spent beefing up our Fire Protection System – which is one of the main functions of a County ---Public Safety. The only mitigating factor would be to use this property as a 'trade' for a more appropriate site.

   The amount of money to purchase the property is only one step – the amount of money needed for all the improvements is double or triple this amount. With a 'free' park – who will pay for all of this – certainly not the out-of-county users of this parking lot. Again, not good use of taxpayer dollars.

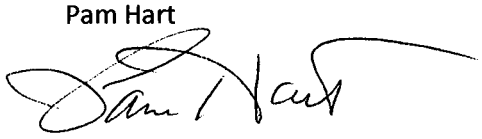
5) Who will benefit from this project? Who is allowed to construct horse-boarding facilities and get rent? Now all of a sudden the rural environment is open to commercial concerns – and not ones that would be allowed ordinarily by a private property owner – especially west of Bell Road where zoning has been 'frozen'.

   The property owners are certainly not going to benefit from this project as the increase of traffic will negatively affect their property values – ask people at Mears Road. It would seem that the mistakes of the past should not be repeated for the future.

Please consider these points for consideration in your review and fully study them in the Environmental Impact Report.

Regards,

Pam Hart



RECEIVED
JUN 27 2018
COUNTY
DEPT.OF PUBLIC WORKS

10800 Cramer Road
Auburn, CA 95602
June 25, 2018

Shirlee Harrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Hidden Falls Regional Park Trails Network Expansion

To Whom It May Concern:

With the insertion of an action item into the May 22, 2018 Placer County Board of Supervisors Agenda, and with no notification of even the adjacent landowners, the County set in motion a process to purchase two parcels, collectively known as the *Twilight Ride* property. The unannounced effort to initiate that process looked to be an intentional move to quietly put something over on a neighborhood. At the very least, the methodology was anything but ethical. It was, in bold terms, sneaky maneuvering; there is suspicion that certain principals did not want the public to know this action was forthcoming. This kind of official action destroys trust in government. Blame goes straight to the County Planning Department, the Placer County Parks Department, and the County Board of Supervisors and to the colluding private enterprise, the Placer Land Trust. On a 3 to 2 vote, with District 3 and District 5 Supervisors dissenting, the county moved forward with action to purchase the *Twilight Ride* properties with the full intent that this would become a trailhead staging area for access to county-owned land, to lands under the stewardship of the Placer Land Trust and indirectly to the Hidden Falls Regional Park.

There has been an obvious scramble to find moneys to fund the purchase of the *Twilight Ride* properties. The greatest proportion of funds to offset the $22,400 cost per acre for 50 acres has been absconded from The Placer County Tree Preservation Fund and from the Placer Legacy Open Space Trust Fund. The expenditure of those specific funds for the blatant construction of a parking lot, under the guise of it being open space, is scandalous. The entire scheme is unethical, from both a business perspective and from a political perspective. The use of those funds to open the door to a parking lot is wrong. Bilking the county taxpayers for that money, money likely never anticipated by anyone to be directed toward construction of a parking facility, is blatantly unethical and borders on being criminal.

Purchase of the *Twilight Ride* properties with the funds noted, given the purpose, could be illegal, and that is a question which should be looked at by a third party – not by Placer County.

The parking lot sought at the *Twilight Ride* property, 5345 Bell Road, Auburn, and a second proposed lot on the Harvego Bear River property to the north, with access via the private Auburn Valley Road, is a desperate effort to provide indirect access to the Hidden Falls Regional Park, a place where parking has become extremely contentious and where a

neighborhood has been virtually destroyed by the influx of park users who bring noise, littering, vandalism, trespassing and a host of other problems – unsolvable problems – to the Mt. Vernon Road and Mears Road area. The county has created an attractive nuisance at that general area, and now it proposes to create a similar attractive nuisance and debacle at the 5345 Bell Road site, and possibly at the Harvego site. It is wrong to try to solve one problem by creating another.

There are plenty of easily accessible open space sites to recreate upon in Placer County. Tens of thousands of acres are available on public lands right outside the city limits of Auburn. There should be no obligation to believe a falsehood that there is an obligation to provide additional open space for recreation. The maintenance and support costs already absorbed by the county Parks Department are overwhelming. Their operating budget is already insufficient, and yet the Parks Department is leading the charge to increase the demands on its own operations. No doubt various powers just believe needed funds will be found somewhere, and somewhere likely means more taxation, an increase in sales tax and fees yet to be crafted. In addition, I foresee cutting other department budgets to scam support funds for parks. The paradigm of *just do it* is wrong.

In the scoping process, the impacts of the proposed parking lot seem to be ignored as being insignificant. <u>The parking lot is not insignificant.</u> The scandalous purchase of the *Twilight Ride* property, with the sole purpose to provide staging at a new trailhead, will create a debacle not dissimilar to the calamity in the vicinity of the Mears Road parking and staging site. By its action the county, and all entities involved – the Parks Dept., Parks Commission, Planning Dept., MACs, Board of Supervisors and even the county CEO are running roughshod over the collective desires of a neighborhood. That is wrong. The foregoing represent "the establishment" and "the establishment" has learned little from a legacy of presumptuous and wrongful decisions that have repeatedly urbanized agricultural communities. The unaccountable bureaucrats and politicians must reconsider their direction.

The planning for a new staging area thwarts even the intent of the Placer Legacy Trust Fund in that it opens the gate to intensive use by out-of-county users. If those people want to recreate, let them consider the use of the expansive Auburn State Recreation Area, a state park. The wide-open spaces of nearby National Forests also offer additional recreational opportunities that do not impact a farming community and neighborhood.

The SEIR and EIR studies provide a breadth of studies, but the impacts on those most affected are all but ignored. However, it is not just the neighborhood that is ignored; it is every taxpayer in Placer County that is ignored. There is a potential multi-million dollar impact on Placer County if that parking lot at 5345 Bell Road is permitted. The purchase of the *Twilight Ride* property and the installation of a perceived trailhead is a complete farce with the planning for such reaching into the depths of backroom, non-public decisions. That is wrong.

No one wants to talk about the unintended consequences of creating a magnet to draw people to a confined space so that they might utilize an unneeded trailhead. That lack of willingness to face the real issues shows cowardice and harkens to the fact that when

there is no impact on the decision-maker or on his or her personal wellbeing, is blasphemous.

There is, clearly, a dichotomy of values. The neighborhood resistance is sneered upon and looked at by the unaffected as a Not In My Back Yard (NYMBY) issue. What the inept and unfair decision makers deny is that there is an opposite side to the matter: It's Not In MY Back Yard, so why should I care? That ilk is in the majority but those who deny the truth would be in a different camp if they were among the parties being ravaged by cavalier planning.

The purchase of the *Twilight Ride* property, if settled, is just the beginning and perhaps the smallest long-term cost. Installation of a roadway into the *Twilight Ride* property, and installation of the parking lot itself could run half a million dollars. Then, restrooms and a leach line system, preceded by perc testing, possible installation of a sand pile leach line system, could add tens of thousands of dollars in costs. As for a well and provision of potable water, there is likely more tens of thousands of dollars of costs. The costs of easements already purchased, and yet to be purchased, as well as the costs of two bridges yet to be constructed, is or will be alarming. Additionally, fencing, lighting, law enforcement, potential need for Park Rangers, computer registration for parking – and dozens of other yet to be discovered tasks just keep adding to the costs, not to mention upkeep and maintenance, ad infinitum. The County resident and taxpayer gets totally bilked, and that taxpayer gets bilked over the very long term because the few who make the decisions that lead to the physical and financial debacles are never held accountable. In fact, they plan the ruination, they retire and they may even leave the area, thus escaping any impact of their total disregard for what is right. The crooked, collaborative planning and the final action of shoving something down the throats of a limited few who suffer the physical impacts of inept planning is hardly regarded by the bureaucrats and politicians as an important part of the equation.

Government, together with its own ineptness, dishonesty, and more, has for too long been given license to do anything it wants. The very thought that this *Twilight Ride* parking lot is a proper solution is proof positive of that fact. The charade of governance noted has more resemblance to communism than it does to trustworthy governance that follows Constitutional law and professional ethics. Placer County governance is as guilty of shameful scamming as is any other governing entity, be it local city governance or national governance. It is past time to get back to ethical process.

Clearly, there should be no parking lot at 5345 Bell Road.

The decision to say "NO" is best defended with a review of fiscal impacts. Some impacts have already been mentioned, e.g. restrooms, a need for potable water, a need for watering facilities for horses, but the capital expense of those kinds of facilities goes on in virtual perpetuity with needs for maintenance and upgrades. Then, there is lighting, fencing, gating, law enforcement, refuse control, vandalism, wildland fire, trespass, encroachment on wildlife habitat, traffic impacts of traffic volume, speeding, safety and additional wear and tear on the roadway surfaces that will bear the brunt of thousands of additional vehicle trips. How will all these needs be financed? Taxes and fees will be initiated and will

increase over time because of the failure to adequately plan for the future. The economic impact on the county could doom it of fiscal means to take care of issues already at hand.

Planners will ultimately weigh the collective voices of those who reside in Auburn Valley, or along the local county roads, specifically Bell Road, Cramer Road and Lone Star Road, and that count will be small in comparison to the visitor use days that will be logged and bragged about. With that, the logic will be that the voices of many outweigh the voices of the few. That simplification is wrong. Comparison of those numbers is not a rationale for approval. The absolute rationale for totally negating the project is the physical impact on the neighborhood, with all the commensurate issues brought into focus by visitors who use and leave, and thus bear no suffrage is the root of the problem. The neighborhood impacts and the fiscal impacts, which are largely unknown, combine for a resounding NO. No parking lot. No trailhead. No mitigation as a means to weasel a reduced impact. The absolute bottom line is, NO PARKING LOT at 5345 Bell Road. Find an alternative.

All of the preceding thought demands rethinking and a restructured approach. The paradigm long seen is just build, build, build – and worry about the consequences later. It is past time to learn from lessons of the past. But will the lessons be influential? Doubtful. Why? Because for too long, those in power have gotten away with kicking the can down the road, taking no responsibility for creation of a problem, big or small, and hoping someone else will be held accountable. That kind of losing paradigm needs to be reimagined. No doubt there is some approval by shallow thinkers that outside money will flow into the area when out of town and out of county visitors come to recreate, and then leave. That kind of greed is sinful. There is no obligation whatsoever to create an attractive nuisance that will not pay its way.

A new and rational course of action is feasible when and if the decision-makers will look closely at the synthesis of the many basic elements of the problem. It is the impact of people problems, and not the majority of issues looked at in an EIR, that deserves the greatest attention. The negatives of an expansion of parking for day use of the HFRP and adjacent lands outweigh the benefits. As an analogy, when a family has a budget, as means to avoid bankruptcy, the family lives within its budget. In a similar sense, the county should be accountable. Being accountable in terms of HFRP is simple: Live with what you have and manage what you have. There is absolutely no need to go further.

In summary: **No parking lot at 5345 Bell Road. Seek alternative solutions.**

Bart Ruud

Bart Ruud

cc: Board of Supervisors, Planning Commission, Parks Commission, Parks Department

Gmail

Ginny Barnes <ginnyb4u@gmail.com>

## Nextdoor Hidden Falls access

1 message

RECEIVED
JUN 25 2018
CDRA

**Ginny Barnes** <ginnyb4u@gmail.com> Thu, Jun 21, 2018 at 5:37 PM
To: Ginny Barnes <ginnyb4u@gmail.com>

To whom it may concern,

I am writing this letter to hopefully make you aware of how lives will be ruined with the Hidden Falls access project.
Many people live in this area for the peace and serenity We enjoy the the quiet,the views of green rolling hills with the cattle and the privacy. It will be devastated with parking lots, roads, noise and traffic.
Like others have said,we basically already live in a park, we never use Hidden Falls. Most locals don't.
My son sometimes has to work until 1 or 2 in the morning and he will get NO sleep with the entrance being right next door and open from dawn to dusk
We moved here in 1978 from L.A. to get away from the crime and noise and now you want to put an entrance right next door? So sad.
Would you like to live right next door to the parking lot with a road running the length of your property and have another parking lot right behind your property.
without a doubt there will be vandalism ,noise, homeless,lack of privacy,way too much traffic.
We are totally against this project and want it totally off the agenda.

John and Ginny Barnes
5355 Bell Road
823-8887

## Shirlee Herrington

**From:** Erika Hazen <eahazen@hotmail.com>
**Sent:** Tuesday, June 12, 2018 4:38 PM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls parking comment

I am a property owner on Cramer Road. Someone taped a notice on all the mail boxes on my road, indicating that we should complain about the proposed parking lot for Hidden Falls access.
I am 100% IN FAVOR of the new access point! This will open up a great public opportunity to enjoy our trails. Please consider me as Very Pleased that Placer County has taken on this fantastic project. I have owned land here since 1974 and am thrilled to have public trail access nearby!
I am sending you a pic of the flyer that was stuck on my mailbox, just FYI.
Erika Hazen
Cramer Road

Sent from my iPhone

## *Placer County to Purchase 50 Acre Twilight Ride Property*

## *at 5345 Bell Rd for more access to Hidden Falls Park.*

(Former Hawkins place) Entrance by small pond about ½ mile S of Cramer on Bell Rd.

The County proposes a ***100 car and 40 truck-horse trailer parking lots***, plus

Stable, Bike Rental, Picnic Area, Restrooms, Drinking Water and more...

This will have a **HORRIBLE** impact on Cramer, Bell & Lone Star Rds. The property owners on Mt Vernon & Mount Rd; where there are already big parking lots for HF are going wild. Littering, property damage, drug use, trespassing, illegal parking & theft are common. Bell, Cramer & Lone Star Rds can barely handle current traffic, are narrow, have blind curves & other hazards. *Educate yourself!*

For Documents: www.placer.ca.gov/departments/communitydevelopment/environmentalsvcs/eir

Look for: Hidden Falls Regional Park Trails Network Expansion (on right sidebar) or scroll down to:

Hidden Falls Regional Park Trails Expansion Project

Also Auburn Journal Letter to Editor 6/3/2018, Front Page Article & County Notice in Weekly Auburn 6/10/2018

**Public Comment for revised notice of preparation of subsequent EIR extends through July 6, 2018. A public meeting to solicit public input will be held : *Thursday***

***June 14 from 6 – 8 p.m. at the Planning Commission***

***Hearing Rm: 3091 County Center Dr. in the DeWitt complex.***

Written Comments by 5 p.m. July 6, 2018 to:

Shirlee Herrington, Environmental Coordination Services, Community Development Resource Agency, 3091 County Center Dr, Ste 190, Auburn, CA 95603. (530) 745-3132, FAX 745-3080: cdraecs@placer.ca.gov

write your Brd of Supervisor: Jennifer Montgomery

DEMAND: *NO Bell Rd PARKING LOT AND TOTAL NEW EIR*

# PLEASE BE THERE WITH LETTERS and COMMENTS

10800 Cramer Road
Auburn, CA 95602
July 5, 2018

RECEIVED
JUL 09 2018
CDRA

Shirlee Harrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

RE: Hidden Falls Regional Park Trails Network Expansion

To Whom It may Concern:

I am writing to inform you of my strong opposition to the proposed purchase by Placer County of the 50 acre Twilight Ride LLC property, located at 5345 Bell Road in order to provide an additional parking location for access to Hidden Falls Regional Park (HFRP).

My family's ranch is located directly across Bell Road from this address. We were not notified by letter of the Public Works & Facilities Action Item 12.C on the Placer County Board of Supervisor Agenda of May 22, 2018, to be taken up at 1:00 as a "Department Item to be considered for action as time allows". This item pertained to the property at 5345 Bell Road, Auburn and was an agreement for Purchase and Sale of Twilight Ride LLC and to approve a Budget revision. My brother, Barton Ruud and I were present at that meeting and objected to the legality of Action Item 12.C being included on the Agenda and asked that any action be delayed until contiguous property owners and others in the greater Lone Star area were notified by letter. We believe that Placer County is legally obligated to notify property owners prior to when Action Items of this nature are included on a Board of Supervisor Agenda. We were overruled and the Item passed with a 3-2 vote. Thus, I am asking for a legal ruling from a court of law of the inclusion of Item 12.C on that Agenda.

In addition, I object to the agreed upon Purchase Price of $1,120,000, which I believe to be highly inflated. In particular, the valuation of the 40 acres of open space needs to be reviewed. There is also the matter of the front 10 acres, which includes a small 2 BR home, garage and workshop; the owner has requested a 10 year lease of the current residential structure, including 3 acres on the 10 acre parcel free of rent for a property caretaker. To pay for the purchase, I understand that $558,050 is to be taken from the Placer Legacy Open Space Fund and $392,000 from the Tree Preservation Fund. Since when are parking lots and amenities open-space tree savers. That is not what we or others had in mind when we included a donation to said fund for years, when paying our taxes.

Then there is the matter of "improvements". No mention is made of the cost, type or design of the entrance or road leading from Bell Road, or the parking lots, one for 100 autos and one for 40 vehicle-horse trailer rigs. We have also read/heard of other amenities: restrooms, picnic area, bicycle rental, potable water, stable. How are all of these upgrades to be paid for and what about ongoing upkeep? What about liability? This is beginning to sound more like an amusement park plopped in the middle of a rural agriculture/rural residential area, which will totally ruin the quiet ambience the local home/property owners have enjoyed since the Gold Rush. The Lone Star area still has 6 working cattle ranches, two wineries and two more going in on Cramer Road. Two ranches are contiguous with the Twilight Ride Property. People, cars, bicycles, noise and picnic areas do not mix well with private

property or livestock. Just ask the property owners in the Mt Vernon Road, Mears Road area where the primary parking lots for HFRP are located. They are going wild and continue to experience illegal parking on private property, trespassing, theft, property damage, loud music, drug use, littering to name a few. It seems the ruination of one neighborhood is now to be shared with another, only this will be much worse because of the location and access via three county roads.

Lone Star, Cramer and Bell Roads are substandard at best and can barely handle the current traffic. All are narrow, windy, curvy and each has several very bad blind curves; there are no shoulders, but instead ditches to carry run-off water. People drive too fast, even though speed limits are posted. Two summers ago I was forced into the ditch on the blind curve above the NID reservoir; fortunately the perpetrator missed me by about 6 inches and I only blew one tire. Of course he did not stop to see if I was OK. I might add that I have been riding/driving Cramer Road for over 73 years, so I know the road and know to hug the edge, especially on curves. Last summer my brother narrowly missed being hit by a CDF fire truck on the same blind curve, but a fellow on a motorcycle was not so lucky when hit by a station wagon. Fortunately he only suffered a badly broken leg. There is also the matter of Lone Star and Cramer Road access to Highway 49. Even CALTRANS will tell you these are bad-very bad. Both demand excellent driving skills and patience to safely navigate turns both on and off the highway. Highway 49 has had at least a half dozen traffic fatalities in the vicinity in the last couple of years; Bell Road has had a number of accidents reported to the CA Highway Patrol in the last several years. See the July 1, 2018 Auburn Journal letter by Zeke Tafoya for details. I can only imagine that the accident rate and fatalities will go up significantly, especially because the drivers to this proposed parking lot will be primarily from urban areas and not accustomed to the demands of rural driving.

The addition of another parking lot to facilitate access to HFRP via trail easements means more people in a totally wildland area that is a catastrophe waiting to happen. Wildland FIRE is a major concern in the Lone Star - Big Hill area stretching all the way from the Bear River to Hidden Falls Park. There have been several fires on Big Hill in the last couple of years and there was a fire just off Bell Road about 3 weeks ago. Fortunately CDF was able to do a couple of plane dumps and 3 CDF trucks, a water tender, a bulldozer and the Washington Ridge crew were able to keep it from burning two homes. A recent Sacramento Bee article reported that the current state of the fire season is what we normally experience in September. The 49er Fire of a few years ago destroyed over 60 homes and 2 business and covered over 300 acres in a couple of hours. The infamous Grass Valley Fire in the 1980s burned several thousand acres and around 2,400 homes. Fire officials felt extremely lucky to have stopped it with only that amount of damage. We have had 4 fires on our 160 acres in my lifetime- all man caused. Two were from cigarettes - ? tossed out along the road; one was caused by a neighbor mowing dry grass at two in the afternoon next to the backside of the ranch and the fourth from an ember blown to the backside from a man-caused fire at two in the afternoon from the end of Lawrenson Road. Luckily CDF was able to stop all before too much damage was incurred. What I am trying to say is that people do NOT belong in high fire danger areas once the hillsides have dried out. We have had homeless camp in the backside of our ranch next to Orr Creek. What is to keep them from coming back? What is to keep them from camping in the wilds of Hidden Falls Park all the way to the Bear River?

Placer County is evidently feeling "flush", as the proposed county budget is $75 million more than last fiscal year. This will not last. The economic future of the nation and the world is fragile and could turn upside down very quickly. That aside, what is known from long term economic trends, is that even though Wall Street is currently running smoothly, there are dark signs that not all is well and that a significant economic downturn is a year or two away. Remember what the crash of 2008 did to the Placer County Budget? I do, and a quick review will show an ugly picture. What departments or

programs will get squeezed or eliminated: most likely more library branches, museums, parks, health department programs, human services? Word to the wise: do not over-promise, do not over-reach.

Please ask yourselves: what is the benefit of this parking lot site to the Lone Star area of Bell Road, all the way from Four Corners (Bell Road/Joerger Road intersection) to the Country Club entrance, Lone Star Road, Cramer Road and particularly to those in the immediate area of 5345 Bell Road? In my view, absolutely NOTHING. What is our compensation/reward: 3-400 more cars a day, particularly on Cramer Road (Mapquest takes you right down Cramer Road) and then the quarter mile on Bell Road to the entrance; probable trespassers and more homeless camping on our ranch and the property from the Bear River all the way to Hidden Falls Park; probable theft, noise, enhanced threat of wildland FIRE, disruption to our ranches and rural lifestyle. Would you want this dumped on your home, your front yard, your ranch, your quiet rural lifestyle? I think NOT. This area is NOT ZONED as an amusement park.

Please explore alternatives and there are alternatives. Please DO NOT DESTROY ANOTHER RURAL AREA just so you can have bragging rights and advertise to the Sacramento area, the Bay Area, the REI crowd: you-all come on up.

Regards,

Delana Ruud

## Shirlee Herrington

**From:** Leslie Bisharat <lbisharat@techline-sac.com>
**Sent:** Friday, June 15, 2018 4:19 PM
**To:** Shirlee Herrington
**Subject:** IN FAVOR OF HIDDEN FALLS EXPANSION

Hello Ms. Herrington,

I attended last night's meeting re Hidden Falls but didn't stay long enough to get through the line to express my views. I also found the rudeness of the opponents towards speakers in favor of the expansion to be intimidating. I felt certain that the fact I'm not a "local" resident would generate more derogatory comments than I was willing to hear.

I'm a hiker, horseback rider, and sometimes simply a 69-year-old observer of nature. I live in Granite Bay and 30 years ago moved there to live in the quiet countryside, away from crowded Carmichael. Of course many other people wanted exactly the same thing and now I hear traffic, garden equipment, dogs barking and parties. Instead of 7 houses on my short street, there are 18. My night sky is practically gone and the darkness that used to surround my property is penetrated with security lights. I sympathize with the NIMBY's at last night's meeting but it's folly to think that with a growing population things beyond each of our spheres of influence will remain the same. Hidden Falls' popularity is clear evidence that there's a steady, increasing need for more public parks and open spaces. We taxpayers depend on our County government to meet current (and plan for future) needs as best it can with reasonable mitigation for landowners who will be negatively impacted. Spreading the impacts of traffic, parking and access to more locations in conjunction with the long-awaited park expansion makes perfect sense. The entire project has my full support and I hope it moves ahead quickly.

Thank you,

Leslie Bisharat
7870 Eagle View Lane
Granite Bay, CA 95746
916-996-4332

avast This email is free from viruses and malware because avast! Antivirus protection is active.

RECEIVED
JUL 02 2018
CDRA

Shirlee Herrington
Placer County Community Development/Resource Agency

June 14, 2018

Dear Shirlee,

As longtime residents on Cramer Road in North Auburn, we are writing to inform the County of our alarm and valid concerns over the proposed parking lot and trailhead (Hidden Falls Access and Expansion) that you hope to open at 5345 Bell Road. We will start with a question. Have you and those involved even driven on Cramer Road and Lonestar Road and Bell Road? You all need to before you make any further decisions about this project. They are narrow, hilly and winding country roads that are poorly maintained. GPS will send hikers, cyclists and equestrians coming from I 80 or Hwy 49 down Cramer. Cramer Road has no yellow center line and no white lines on the sides (shoulder) due to being too narrow. There are 3 blind curves. **Does the County plan to purchase easements from all the land owners along Cramer to widen it and bring it up to regulation and make it safe for residents and added vehicles, horse trailers and cyclists before opening the proposed parking lot?** This widening will also need to be done on Bell Road and Lonestar Road as they are also narrow, hilly and winding country roads with blind curves. **How many heritage oaks will need to come down to widen these roads and make them safe?** Did we mention that we have 3 young children and the added traffic of several hundred vehicles, horse trailers and cyclists each day will make these roads a virtual death trap? Hwy 49 has already been the site of multiple crashes and deaths near Lonestar, Cramer, Joeger and Dry Creek and the County has yet to solve the current problems and safety issues on this treacherous stretch of highway. **Is the County putting in a stoplight at Cramer and Lonestar before they open up a parking lot? The Supervisors and the County need to take very seriously their responsibility and liability for the accidents and deaths that will surely happen due to the added traffic and congestion.** It isn't just the increased volume of traffic, but also the fact that horse trailers and cyclists will compound the problem. **Has the County thought that through?**

We are also concerned about the increased fire danger resulting from the volume of people on Big Hill. With an extensive trail system, that will be impossible to monitor, there will inevitably be hikers and transients camping out.

**This area is not a State Recreation Area or a National Forest; this is our home.** It is a safe and quiet community and we would like it to stay that way. Please remember that it is not okay to hurt one person (or group of persons) in order to benefit another person (or group of persons). The County knows how devastating Hidden Falls Park has been for the residents along Mears Road, Mears Place, and Mt Vernon Road. It is unconscionable that the County would, knowing what they know, do this to another beautiful, peaceful, rural community. **Please ask yourselves if you would want this massive invasion of privacy in your front yard and if you would want your neighborhood streets turned into dangerous, congested roadways.**

Sincerely,

Joel and Erica Houston

Louis & Carol Salatino
10111 Ranch Rd.
Auburn, CA 95602
APN # 075-040-057-00

RECEIVED
JUN 15 2018
CDRA

Attn: Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive
Suite 190, Auburn, CA 95603

June 11, 2018

Dear Shirlee Herrington,

We would like to voice a complaint to the proposed 100 car and 40 truck-horse trailer parking lot the county has planned to place at 5345 Bell Road, here in rural Auburn. There are several reasons why we feel this would **NOT** be an appropriate place to put this lot, so that people would be able to access the Hidden Falls Recreation area. The following are just a few:

- Increase in traffic on a narrow 2-lane road would be extremely hazardous to our safety
  - If the county still considers this area, then they would need to widen Bell Road, put in more speed signs and monitor with police force more regularly.
  - That would really increase the amount of $$ that the county would have to spend in this area!!
- A threat to our ground water –
  - Putting in wells at this area could greatly affect the level of ground water – a threat for all of us on private wells!
  - Possible threat of contamination of our water supply – because of waste or other substances getting into the ground water
- Solid waste at this site – with the increase of persons using this area the threat of more trash could further contaminate our landscape
- Increase of property damage, drug use and trespassing are common results from bringing public parking area into our rural setting
  - Already we have heard of many homeless people who 'scope' out these types of areas to look for opportunities of ill will along with the disinterest of non-locals for the privacy & attractiveness of our rural area.

Thank you for your attention in helping us keep the quality of life we have enjoyed over the past 30 years here in this section of Auburn.

Concerned Landowners,

Carol Salatino
Louis Salatino

## Shirlee Herrington

**From:** Wendy Boucher <wendy@eboucher.com>
**Sent:** Friday, July 06, 2018 11:34 AM
**To:** Placer County Environmental Coordination Services
**Subject:** NO Hidden Falls access on Bell Road

Eric and Wendy Boucher

4525 Bell Road
Auburn, CA 95602
530-852-5111
wendy@eboucher.com

July 6, 2018

Shirlee Harrington: Com Dev Agency Dewitt
cdraecs@placer.ca.gov
Auburn, CA 95602

Dear Shirlee,

This is to state that we are against the proposed Hidden Falls development parking lot and concessions on Bell Road.

The amount of traffic and other problems that will arise are unacceptable. Having spent a number of years training at an equestrian barn on Mears Drive, I have experienced first hand the complete chaos caused by the traffic in and out of Hidden Falls. Additionally, the windy roads and blind corners are already problematic. The corner nearest to our property already has numerous accidents per year.

We moved here 8 years ago to have a peaceful, rural life, and this will infringe on that. It will also lower our property values, and most likely bring homeless people straight from the shelter to the Hidden Falls facility. Theft and forest fire are also a possibility.

After living in the SF Bay Area, we learned that some small county and city parks were just not large enough for everyone to use. When those lots were full, we turned around and went to a less busy park. We learned to plan our visits appropriately, and accepted when smaller parks couldn't handle large amounts of people. There is nothing wrong with this concept being applied to Hidden Falls in order to protect the rural lifestyle of the tax paying residents on Bell and surrounding roads that will be affected by this proposed project. You would never see homes demolished near parks so that it could be turned into a parking lot, and we should have the same respect for local residents. We live near one of the largest and most beautiful recreation areas in the country and there's no reason why people shouldn't be redirected 20 minutes down the road to Confluence where there is ample room and minimal disruption to local residents.

A gentleman at the recent community meeting offered to sell a piece of his land to provide ample parking and facilities at the bottom of Hidden Falls. Everyone at the meeting applauded because this would be the ideal solution. Please consider this option. Many of us feel betrayed by our leadership due to "back room" arrangements with land owners selling their land for this project and putting our community at risk. Please consider what the residents wish. We all believe this is simply a money making scheme for Placer County, and should be stopped.

Regards,

Eric and Wendy Boucher

# Hidden Falls Regional Park
# Subsequent Environmental Impact Report
# Scoping Meeting Comment Card

Please write clearly and note that all comments received become a part of the public record. If you'd like to provide your name or contact information, please do so:

Name: Judy Isaman Organization/Address: 4985 Bell Road, Auburn (Preserve Rural Placer)

Email: jgisaman@aol.com Date July 6, 2018

[X] Please add me to the mailing list for this project.

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Preliminary review by Placer County staff indicates the proposed Hidden Falls Regional Park Expansion Project Subsequent Environmental Impact Report (SEIR) will evaluate impacts to the following environmental topics:

- **Aesthetics**
- **Agriculture**
- **Air Quality**
- **Biological Resources**
- **Cultural Resources**
- **Energy**
- **Geology, Soils, Paleontology**
- **Greenhouse Gas Emissions**
- **Hazards and Hazardous Materials**
- **Hydrology and Water Quality**
- **Land Use and Planning**
- **Noise**
- **Population, Employment, Housing**
- **Public Services and Recreation**
- **Transportation/Traffic**
- **Utilities and Service Systems**

**Q:** Have we missed any important topics? If so, which ones and why? Should any topics be dismissed from further consideration? If so, which ones and why? Request that proposed home developments, including low cost housing, proposed developments at Dewitt Center, and the homeless shelter also be included in the report.

**Q:** Should any topics be broken out separately or combined? Why? For ease of review by the community and lay-persons, each item should have its own heading and table of contents/index listing.

**Q:** Due to what you know about the location, scale, and character of this proposed park expansion, should the EIR place particular focus on certain topics? If so, which ones? The report should include extensive information about the impact on the wetlands, water supplies for proposed project AND effect on wells providing water to property owners within a mile radius, as well as address traffice safety, and fire prevention.

**Q:** Are there existing conditions on the site or in the vicinity of the project site we should consider in the EIR analysis? If so, please describe them.

Wetlands, traffic and safety concerns along all feeder roads to proposed project and specifically Cramer Road's intersection to Highway 49.

## Mitigation Measures

**Q:** Mitigation measures are changes to the design, phasing, or operation that would reduce or avoid environmental impacts. Please suggest mitigation measures that could address impacts related to operations and maintenance.

Do not move forward with project. Take another look at current entrance off of Mears Road to discuss incorporating shuttles to/fro that lot to reduce impact to that neighborhood.

## Alternatives

**Q:** The applicant will consider alternatives that meet the basic objectives for the project that could potentially reduce or avoid environmental impacts. Do you have ideas for alternatives that would reduce or avoid environmental impacts?

In addition to the listening sessions, formely include community members in the planning of this REGIONAL park for our region. There was mentioned that having another entrance would generate ~~income in the area. My thought if you have a shuttle stop at Highway 49 or the 80 Freeway income~~ can be realized through park guests stopping at any of the landmark eateries, farm stores, Starbucks, or fast food outlets for a picnic at the park or a place to eat after a hike. Could we obtain funding through alternative fuel outlets as Sacramento did with Electrify America (check 6/13/18 Sac Bee).

## Interested Parties

**Q:** Do you know of public agencies, public and private groups, or individuals that the applicant should contact regarding this project and the accompanying EIR? If so, please list them.

Judy Isaman , Preserve Rural Placer, Steering Committee (916) 698-1055

If you would prefer to take this card with you and provide comments later, please send them by, **2018** to: July 6

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603.

You can review the Notice of Preparation (NOP) at Placer County's website at: https://placer.ca.gov/departments/communitydevelopment/planning

Larry & Christine Simmons
4844 Bell Road
Auburn, CA 95602
Parcel #076-030-069-000
530-823-1824

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JUN 21 2018
CDRA

June 15, 2018

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

RE: Notice of Preparation – Hidden Falls Regional Park Trails Network Expansion Project

Dear Ms. Herrington:

We are writing to indicate our strong opposition to the "potential" use of 50 acres located at 5345 Bell Road for additional trailhead parking for Hidden Falls Regional Park. This will have seriously negative impacts on residents living on Bell, Cramer and Lone Star Roads. Our concerns include:

- Increased traffic and related safety issues
- Increased risk of fire
- Disrupting wildlife in the area
- Wear and tear on already bad road conditions
- Increased littering & property damage
- Trespassing on private property
- Illegal parking

These concerns turned real for the property owners on Mt. Vernon and Mears Roads due to the current parking lot for Hidden Falls Regional Park located at Mears Place. It has been a nightmare for those residents. And it was predictable. You cannot introduce a state park size operation into a neighborhood without severely and detrimentally impacting the residents.

We have lived on Bell Road for almost 21 years. We chose this rural lifestyle to get away from people and traffic. There have been changes over the years. There was a marked increase in traffic related to wineries and the housing development above the Auburn Valley Country Club. The county provided no traffic mitigation when these projects were approved. The rural roads in this area are narrow with steep drop-offs, sharp curves, and other hazards. The road conditions are poor. There are safety issues for pedestrians and bicycles on Bell, Cramer, and Lone Star Roads now. The access and parking lot for Hidden Falls on Bell Road will create even more traffic, exacerbating the issues that already exist.

People coming from out-of-town to hike, bike and ride in a public facility or park do not understand the increased risk of fire danger in a rural residential area. They may not realize how easily a fire can be sparked in the dry conditions we experience in the summer and fall.

We will, without a doubt, be victims of these visitors and their lack of respect for private property. We've seen it at the Mears access point to Hidden Falls. Our rural setting will not be

recognized by visitors as a neighborhood with families and pets; it will look like a public parking lot that someone else will clean up and maintain. It will also attract those who intend to commit crimes such as theft and vandalism in the parking lot, which will spill over to the private residences in the area.

We attended the "scoping" meeting last night at the Community Development Resource Center on the Hidden Falls Expansion Project. We were insulted by the attitudes of Mr. Andy Fisher and Ms. Lisa Carnahan. We are troubled by the lack of communication with the residents of Bell Road and the surrounding area before the terms for purchase of the property were voted on by the Board of Supervisors. Mr. Fisher told us that all land purchases are handled that way. What it does is give the impression of a secret and underhanded transaction. We did not find out about the proposed parking lot and land purchase on Bell Road until it was published in the Auburn Journal. Many residents didn't have any idea what was happening until a neighborhood meeting was convened. How could you move forward with such a life-changing plan without discussions with the residents who will be so detrimentally impacted?

We left the meeting last night with the feeling that you and the Placer County government officials don't care about the impacts of expanding Hidden Falls. We implore you to reconsider the decision to insert this facility in our rural neighborhood. Take the time to contemplate the seriously negative impacts to taxpaying residents of Placer County. Better yet, contemplate how you would personally feel if this huge parking lot and droves of people were suddenly moving through your neighborhood. Where you live, your safe place, your sanctuary.

We have the utmost respect for the county's vision to make Placer County a destination for outdoor activities. However, we are sickened by the proposal, scared of the changes to our way of life, and, like many of our neighbors, we are losing sleep since we learned of the use of the 50 acres at 5345 Bell Road for parking and access to Hidden Falls. Please don't let this happen.

Sincerely,

LD Simmons
Larry Simmons

Christine Simmons
Christine Simmons

## Shirlee Herrington

**From:** Jo Bower <jodybower@me.com>
**Sent:** Saturday, June 30, 2018 8:40 PM
**To:** Shirlee Herrington
**Subject:** Expansion

Hello,
We that ride horses love our trails and we do no harm. We just want to ride.
Please help us with getting this Expansion.
Thank you,
Jo Bower

Sent from my iPad

July 9, 2018

Shirlee Herrington
Environmental Senior CDRA Technician

Dear Shirlee,

Re: Proposed parking lot and Trailhead at 5345 Bell Road
Twilight Ride Property/Hidden Falls Regional Park Expansion

I have lived in Meadow Vista for 38 years. I have driven out to my girlfriend Jane and Curt Wurst's ranch, many times over the years. My daughter was married on the Wurst's ranch in 2000. I, along with six other women, meet at Jane's house at least five times a year to do a book study, have lunch, do Yoga, and work on a craft project. We all enjoy our time together. I love the peaceful country roads as I drive to her house.

I can't imagine driving to her house with 140 or more trucks and trailers, cars and bicyclists. I didn't know that there were going to be showers, bike rentals and various retail concession buildings. This will only decrease the value of the farms and ranches in this area. I can't believe the County is going to take over Bell, Cramer, Lonestar, Joeger, Dry Creek and other rural roads with all their twists, turns and blind spots. I don't know who, (County?), is going to fix up these roads. Who is going to maintain them?

The use of Tree Preservation Funds for the purchase of this property is not the way funds were intended to be spent. The extensive destruction of habitat, and plant and animal communities seem directly opposed to the Placer Legacy Program's mission and objective.

Another concern is the availability of water and the opportunity for fire.

I urge you to table this project in its current state. This project merits a meaningful comprehensive master plan to include projections of fiscal expenditures and address safety concerns with input from a committee that includes community members.

I hope you will listen to all the **local** voices and hear them.

Sincerely,

Keely Jackson, *Preserve Rural Placer*

PO Box 143, Meadow Vista *Street*

jackson200@hotmail.com Email

Shirlee

6/19/2018

To: County of Placer
Community Department
Resource Agency

Subject: Hidden Falls Regional Park Expansion Project

Attention: Lisa Carnahan
Shirlee Herrington
Greg McKenzie

As you know, the main problem with Hidden Falls Regional Park is ACCESS. It has become so popular that it is inundated with visitors and impacted with traffic. The neighbors and clientell are up in arms complaining about the inundations and impaction because of the hazardous, little or no ACCESS to the park.

The current expansion project will not solve any of these problems. It will only add to and complicate the existing problems.

If I may, I would like to suggest a solution. A solution to the availability to visitors. A solution to the traffic impaction and a solution to the hazardous inadequate East ACCESS to the Regional Park.

The solution to all those problems of Hidden Falls Regional Park is to expand to the West. Follow Coon Creek west to McCountney Road north of Lincoln with trails, parking and ACCESS from the South, North, and West. Which would add to the trails and parking for hundreds of cars or horse trailers.

South - Access would be on McCourtney Road through Lincoln connecting to Hwy 193, Hwy 65, Wise Road and Sierra College Blvd. to I-80, Hazel Avenue to Hwy 50 and all points south.

North - Access would be on McCourtney Road through or around Beale Air Force Base to Hwy 20 between Marysville and Grass Valley and links to all points north. Civilian traffic is sometimes allowed in through Beale AFB. However, during times of heightened security, all entrances to the base are closed to most traffic. As a result, Homeland Security, Federal Agencies, Cal Trans and Yuba County have been considering putting a highway around the east perimeter of Beale AFB. To accommodate civilian traffic.

West - Access would be Riosa Road through Sheridan and connecting to Hwy 65, 70, 99, 20 and to I-5 which would connect to all points west.

In another writing I have proposed a HORSE CELEBRATION PARK on McCourtney Road near Riosa Road and Coon Creek. In my opinion, that park connected to the Regional Park would solve the Regional Parks problems and relieve much of the frustration of neighbors along the East ACCESS.

As you can see by the inundation of the Regional Park in the past few years, horse activities are on the rise. The horse population is big and growing. Statistics show that there are more horses in America now than there ever has been in the past.

Auburn probably has over one thousand horses.
Loomis probably has over one thousand horses.
Lincoln probably has over one thousand horses.

Northern California probably has over one hundred thousand horses.
Southern California probably has over one hundred thousand horses.
Central California probably has over one hundred thousand horses.

Granted some horses are neglected and some horses are abused. But, some horses are well cared for and some horses are loved like family. Some are celebrated for their contribution to our civilization.

Frankly, I say, that we should appreciate and celebrate the horses with an attitude of gratitude. And provide for the westward expansion of Hidden Falls Regional Park joining the HORSE CELEBRATION PARK.

Charley Smith

Charley Smith

Call (916) 672-6014 or (916) 296-7670.

Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

July 2, 2018

Attn: Shirlee Harrington

Dear Ms. Harrington,

Thank you for your interest and concern in resolving the Hidden Falls Regional Park problems.

As I have discussed in previous June 2018 letters, Hidden Falls Regional Park's survival is subject to providing adequate public access. Also, that a western access is critical and the South Forbes Road by my Ranch connecting to Auburn Road already exists as that very western access.

In addition, during gold rush days and even after, many roads were used until selfish property owners closed them off. For example: Kalaga Springs Road went east from Mc Courtney Road to the historic Newtown Settlement. Whisky Run Road went east from the Newtown Settlement across Garden Bar Road into the Spears Ranch connecting to Auburn Road. If Kalaga Springs Road and Whisky Run Road were reconnected and improved, that would provide another western access to the Regional Park.

Let's face facts, California's greatest problem is not money, it is not water and it is not food. Californai's greatest problem is TRAFFIC congestion.

Likewise, Placer County's greatest problem is not money, it is not water and it is not food. Placer County's greatest problem is TRAFFIC congestion.

Each year a new crop of students graduate from thousands of high schools. The first thing they want is a car. The second thing they want is a job. That puts over a million new cars on the overcrowded road system each year.

The residents along Bell Road and Hwy 49 are complaining about the traffic congestion caused by the east and only viable entrance to the regional Park. If we don't get a western entrance to the regional Park NOW, the traffic problem will only be compounded by any delay. Their complaints will only be compounded by the delay.

Our Government should operate in a manner to satisfy and benefit the governed. In some situations, our government has the power to impede upon a few to satisfy the many through the laws of Eminent Domain. Those laws may be necessary to open up Auburn Road through the existing Wilsontown gated subdivision to provide a viable western access to Hidden Falls Regional Park. That would impede the rights of a few but would satisfy and benefit many with a viable western access to the park, for horse trails and vehicular traffic. My ranch and the proposed Horse Celebration Park connecting to Hidden Falls Regional Park is offered as part of the solution to the current problems.

Respectfully yours,

Charly D Smith 7/2/18

Charley D. Smith

(916) 672-6014 (Home)

(916) 296-7670 (Cell)

c/c:
Robert Wygant, Supervisor, District 2

Lisa Carnahan, Parks Planner

Greg McKenzie, PCCP Admiistrator

Laurie/Eric Findley, Public Works & Facilities

6/30/2018

Supervisor Wygant
Placer Legacy
Placer Land Trust.

In support of my attempt to create the Horse Celebration Park on McCourtney Road in Lincoln and connecting it to the Hidden Falls Regional Park, I hereby submit the following data.

Most all of the county workers that I have contacted in both Placer Legacy and Placer Land Trust seem to think that there would be an insurmountable problem connecting the two parks. However, I have found that existing and old roads as well as trails traversing Coon Creek would connect the two parks.

If the historic old roads have not been officially abandoned they may still be used. In my experience of dealing with easements, I have found that there are three legal types. They are; deeded easements, easements by map and prescriptive easements. Old maps would show the following roads that connect the parks. (See attached Placer county maps & exerts from volume 1 and 2 of Western Placer County History by Jerry Logan, copyright 1990)

Auburn Road ran from Auburn to Marysville through Wilsontown in the gold rush days. As of today it still exists, by map, and runs from South Forbes Road by my ranch to Garden Bar Road by way of Wilsontown Road. From there it goes south across Coon Creek into and through the previous Spears Ranch to Mears Road. As you know, the previous Spears Ranch is the existing Hidden Falls Regional Park.

In addition, the Existing Shamrock Road runs from South Forbes Road, crosses Auburn Road and traverses Coon Creek along the north bank. The south bank of Coon Creek is traversed by the north fork of North Kalaga Springs Road through the historic Newtown settlement of gold rush days.

Many Existing roads gained access to Coon Creek for gold mining through the Spears Ranch. Such as extensions of Godley Road, Burnett Road, Wilson Way, Whiskey Run Road, Kalaga Springs Road and Hubbard Road as well as Mears Road.

The Placer County Planning Department, in their wisdom, has allowed two gated subdivision off the Inadequate and hazardous, Garden Bar Road along Coon Creek. One is Coon Creek Estates on the south bank of Coon Creek. The other one is the Wilsontown Estates on the north bank of Coon Creek which restricts the Auburn Road access to Garden Bar Road. I hope that, in their wisdom, the planning dept. required setbacks to preserve the trails and the water quality of Coon Creek, (a salmon habitat up to hidden falls).

As you may or may not know. Bill Willson, a descendant of the Wilson family of Wilsontown Fame, was hired and assisted the subdividers of the Wilsontown Estates subdivision by grading and putting in the roads. Removing the Wilsontown gates and reconnecting Wilsontown toad to auburn road would provide a much needed west entrance to hidden falls regional park. As well as relief of the traffic impaction on the inadequate and hazardous garden bar road for dozens of homes and hundreds of parcels of land for future homesites.

An adequate western access is critical to the survival of hidden falls regional park, either by improving Garden Bar Road or opening up Wilsontown and Auburn Roads to McCourtney Road.

Selfish property owners along these roads and trails may resist but it may only disturb a few for the benefit of many. Therefore, the counties use of the laws of eminent domain may be forthcoming.

Thank you for your consideration and any assistance you may provide to make the Horse Celebration Park a Reality.

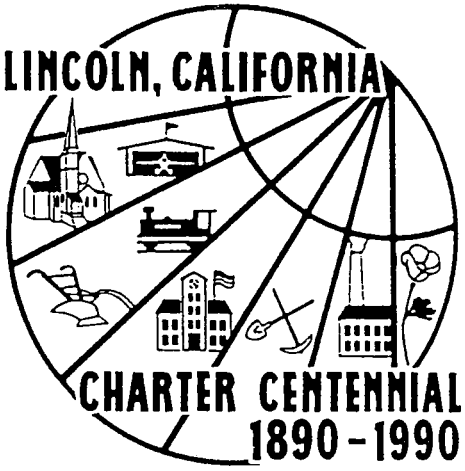
I hope you agree, we need to appreciate, commemorate and celebrate the horse, with an attitude of gratitude!

Charley D. Smith 6/30/2018.

Charley D. Smith
3782 Bankhead Rd, Loomis, CA, 95650
916-672-6014 or 916-296-7670

COPY TO: ROBERT WIGHANT, SUPERVISOR
SHIRLEE HARRINGTON, EIR COORDINATOR.
LISA CARNAHAN, PARKS PLANNER.
GREG MCKENZIE, PCCP ADMINISTRATOR
LAURIE/ERIC FINDLEY, PUBLIC WORKS & FACILITIES.

# WESTERN PLACER COUNTY AND LINCOLN ACCORDING TO HISTORY (to 1900)




*(Lincoln was **founded** in 1859 and **incorporated** in 1890.)*

**About the Author:**

Jerry Logan was born in the Lincoln area (Mt. Pleasant) in 1924. He attended the schools in Lincoln from 1930 - 1942, and then enrolled at U. C. Berkeley. Service in the U. S. Army intervened from 1943 - 1946, after which he returned to U. C., to earn a masters degree. He taught German, math, science, English, and philosophy at the high school level in Santa Clara County. He also taught teaching methodology at many universities in the U. S. and abroad during summer sessions.

During his teaching career Mr. Logan always kept a part-time residence in his Mt. Pleasant home area east of Lincoln, and this residence became permanent again in 1981. All eight of his great grandparents (Logans, Cates, Cartwrights, Steingers, LaChances) arrived in Western Placer County -- or were born here -- between 1849 and 1879, and all are buried here. It was Mr. Logan's interest in the genealogy of his family which led to the broader interest in the Western Placer area where they lived.

This first volume in a projected series on the history of the Lincoln area is a result of Mr. Logan's intensive research into the places and people who were important to his ancestors -- the entire area now served by the Western Placer Unified School District. The area's past turns out to be a microcosm of U. S. history of that era, with all the strands clearly evident. The events are worthy of preservation.

**A special centennial edition**

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# CHAPTER 5

## Western Placer County Towns After 1860

Fifteen years after the start of the gold rush, a "copper rush" excited the adventurous in Western Placer County. "New Mining Town. — Rich Copper Lead," read the headlines in the *Placer Herald* on June 20, 1863. The veins of copper which stimulated the great interest stretched for at least 10 miles, beginning at what is now Godley Road, and extending northwest to and along Bear River to McCourtney Crossing. Several towns were founded to support the mines along the lode.

**Wilson.** This town was founded June 1, 1863, at the mine owned by the Wilson Copper Mining Co. F. R. Wilson headed the company; Eugene F. Gillespie established the town. It was located on the present Garden Bar Road about 1 mile before the road reaches Bear River. The town map projected a town about the size of Lincoln. The map was filed with the county recorder on August 12, 1863 (map Book A, page 26). On July 4, 1863, a barbecue was held to inaugurate the town. 500 persons attended, and "Whisky flowed as freely at night as streamlets from the sunpressed snowy mountainside in spring..." The Wilson Water Company brought in water through pipes (presumably from Bear River).

**Superior.** Wilson's twin city, a few hundred yards to the northeast on the ridge, was named Superior. Both towns had stores, saloons, etc. The mine at superior was named the Superior Copper Mining Company. A voting precinct was established in superior. The residents predicted 500 votes would be cast in the fall election from the Wilson/Superior area. 74 votes were actually cast. Wilson applied for a post office and a school. Neither was forthcoming.

By 1864 Wilson had two hotels, and the mines were producing rich ore. But, unfortunately, there was great competition worldwide, and copper prices sank. By 1865 the towns were dying, and on May 25, 1866, we read: "The Wilson Copper Mining Co. in the town of Wilson is being put up for sale by the Constable of Townwhip No. 2 for non-payment of debt ($96.75) to Oliver Linn." The area revived and the mines reopened in 1899 for several years. Copper was in demand for the newly-created industry of electrical appliance manufacturing. (There was even a post office there in 1906-07 called "Cains." The postmistress was Edith Cain.)

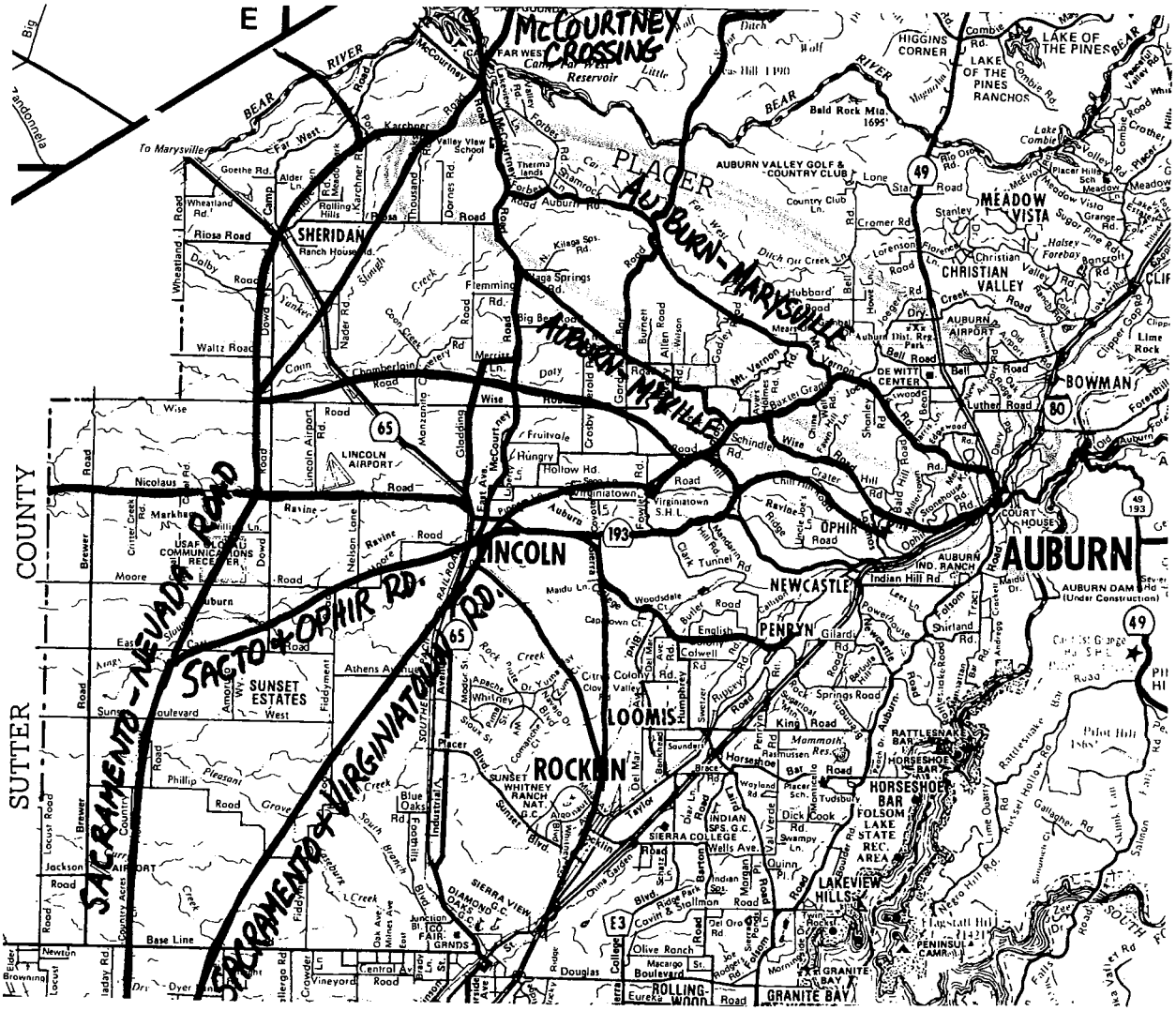
**Cartwright.** "Near McCourtney's Crossing, Bear River, a new town called Cartwright is being started. It is the center of a copper district..." This was announced in 1863. The owner of the property there was Hiram M. Cartwright. The town never really developed into anything, although there was a mill and distillery nearby for several years. Cartwright apparently did not have the finances necessary for starting a mine and a town, so he became a stockholder of the Superior Mine. He later bought property in Newtown/Mt. Pleasant, and provided the land on which Mt. Pleasant Hall now stands. (When the copper revival came about 1900, a mine opened across the river from Cartwright's. It was called the Dairy Farm Mine. The town there was called Van Trent, and had a post office from 1904 - 1918.)

**Valley View.** At the site of the Whiskey Diggins mine new interest and activity in 1866 (new ore discoveries of various kinds—iron, copper, gold, silver —were announced in newspapers) attracted enough people to start a new town. On March 16, 1867: "Valley View. —This is the name of the new town which sprung up near the rich Harpending mine in this county." It had 2 hotels, a blacksmith shop, livery stables, stores. Crosby, Baker (landowners in the area), and others were involved in the mining. The mining lasted well into this century, but the town slowly dwindled in size. It was located at the end of the present Kilaga Springs Road. (A railroad was planned from Lincoln to Valley View to Van Trent. The idea was abandoned because of problems with several landowners. A railroad line from Sheridan to Van Trent was built in 1914.)

**Sheridan.** (See Ch. 12.)

# CHAPTER 7

## "Can You Get There From Here?" Roads 100 Years Ago




*Major roads in Western Placer County 100 years ago — superimposed on a more recent map for comparison*

Before the Gold Rush of 1849, the routes through Western Placer were few, and they were mainly in a north-south direction. The earliest route was most likely the wagon trail across Bear River at Johnson's Crossing between Wheatland and Camp Far West. This was the old "emigrant trail," originating in the east and coming over the Sierra and along Bear River into the Sacramento Valley. After crossing Bear River, this trail veered toward the site of the future town of Sheridan. It then continued south, tracing a line several hundred feet to the west of the present Dowd Road. The eventual terminus was at Sacramento.

After gold was discovered, the number of routes increased quickly. The above-described road branched off to the northeast at Coon Creek. The new branch crossed bear River at McCourtney Crossing and continued on to Nevada City. The original route, at Johnson's Crossing, continued also on up to Marysville.

# CHAPTER 11

## Sheridan's Settlement and Survival

*The Placer Inn in Sheridan when Valentine Tuchsen owned it in 1912. It was built in 1892 by William Dowd, and it was known as the Sheridan Hotel then. It was the only hotel built after the disastrous fire of August 25, 1891, destroyed most Sheridan businesses, including two hotels.*

Why is Sheridan still around? The little town did not follow the scripts which doomed all other towns in Western Placer County. All of the others, with the exception of Lincoln, were mining towns, and they died natural deaths when their purpose—supporting miners—had been served. Lincoln was a transportation town. Its location assured its survival in some form. It was also in the center of a large, developing agricultural district which needed supplies. Lincoln's mining dimension did not depend on quickly diminished deposits of gold, but on seemingly inexhaustible deposits of clay. The clay added a third feature to the town, a small but reliable industrial base.

Sheridan was not a mining town. It is not a transportation crossroads. It had no industry. Its location hardly qualified the town as a scenic resc But there it is; and it does have a history—and mc importantly, a strong sense of identity a community. There has always been an agricultu population to support a few businesses and a scho And, unlike the other towns, which disappeare Sheridan is on a highway.

Theodore Sicard settled just northeast of the futu site of Sheridan, the first European to settle in Plac County. Claude Chana, discoverer of gold in Plac County (near Auburn on Auburn Ravine, 184 arrived at Sicard's in 1846, just ahead of the Donne Party. In 1849 Chana bought approximately 18 squar miles (11,500 acres) from Sicard along Bear Rive Also in 1849 Camp Far West was established as

military outpost of the United States just across Bear River near the foothills.

The spark that started Sheridan (not to be confused with the spark in 1891 which almost finished it) was the energy of Eugene C. Rogers. He settled in the area in 1855. Five wagon roads converged in the vicinity, and in 1857 Rogers constructed his famous shed to accommodate the many freight wagons passing through. "Rogers' Shed" was a large house, 24 feet by 80 feet, with an open 40 by 40 foot shed in front. Teamsters stopped to eat and to service their horses and wagons.

Soon there was a race track. Then dances were held at "the shed." It became a social center, people coming from Marysville, Grass Valley, Nicolaus, etc. (there was no Lincoln yet). A 40 foot high lookout tower with a telescope was erected nearby so stockmen in the area could check the location of their herds. Rogers started a school and hired a teacher in 1864.

In 1866 the railroad came through from Lincoln to Marysville. Although the first depot was built near the shed by farmers in the area, it was moved into the developing town (about 1,000 feet away) in 1868. By 1869 the name "Sheridan" (in honor of Gen. Phillip Sheridan) appeared in newspapers.

Mark Hopkins, of railroad and San Francisco hotel fame, owned property in the area, and he was instrumental in giving the new town a boost. He financed the new flour mill for Daniel Click. It was a large mill and the only one then in Placer County. The town was surveyed and laid out in lots and blocks (see Mapbook A in the Placer County Recorder's Office). John Ziegenbein opened the first store in Sheridan.

Young Dougherty, a partner with Rogers from the beginning, was the first postmaster. The post office opened July 10, 1868. (See Chapters 6 and 10 for information concerning Sheridan's schools and hotels.)

Mr. O. K. Hopkins was the Wells Fargo & Co. express agent and also operator for the Atlantic and Pacific Telegraph Co. in 1875. Walter Neustadt had the store then; Peter Frichette was the blacksmith. Mr. Brock was a partner with Dan Click in the flour mill. Rogers was the railroad land agent. J. L. McDonald was superintendent of the flour mill. He had started McDonald's Mill near McCourtney Crossing in the 1850's, having been a soldier at Camp Far West.

In 1876 the town experienced a little growth—a second hotel, a barber shop, a variety store, a shoe

*Van Trent was east of Sheridan on McCourtney Rd. at Bear River. The Dairy Farm Mine was here. A railroad connected the mine with Sheridan (about 1905 - 1917.)*

store/shop, a pork packing plant. Greitman now had the main store; and Rains joined him by 1878.

Sheridan began to decline by the mid-1880's. Its official population probably never reached 100. The official U.S. census of 1880 showed 12 citizens who were permanent residents of the town, but the surrounding countryside showed a voting population of 130 (women and children not counted).

The valiant band of hard-core Sheridan boosters kept trying, but their efforts to create a thriving town at a rather unpromising location (economically) were doomed. The final blow came in August of 1891. A fire started in the Sheridan Hotel and a south wind spread the flames through the business district (see Chapter 8). Almost 100 years later, weed-filled empty lots symbolize Sheridan's unrealized hopes.

# CHAPTER 12

## Post Offices, Postmasters, Politics, and Precincts

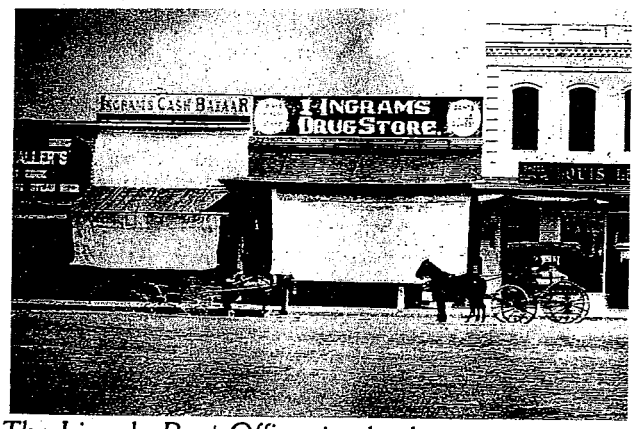
The earliest big towns in Western Placer County all tried for years to get a post office. Gold Hill, Virginia, and even Ophir petitioned for one. But the first U. S. post office west of Auburn went to none of these towns. It went to the smallest town along Auburn Ravine then. Following, in chronological order, are the post offices and their first postmasters:

**Oro City.** This first post office opened on January 6, 1853. The town was located between Gold Hill and Virginia(town). After almost one year, this post office closed (Dec. 20, 1853). It reopened two years later, March 2, 1855, then closed for good June 3, 1858, moving to Virginia. Oro City was finished as a mining town by them. The first postmaster was Chauncy Langdon.

**Coon Creek.** This office was apparently in the Kentucky House on the south side of Coon Creek (west of Dowd Road). It opened on January 3, 1856. The first postmaster was John Barnes, who had a ranch on Coon Creek near the Chamberlain Ranch. D. B. Goode, proprietor of the Kentucky House, was postmaster after Barnes. The office closed on June 13, 1860.

**Virginia.** The day the post office closed in Oro City (June 3, 1858) it reopened in Virginia(town). The first postmaster was Robert W. Lyon. He was born in 1812 in Missouri. The office remained open until April 2, 1866, long after the founding of Lincoln caused the town to fade in size and importance. The office was located on the south side of the main street, next to or in Aldrich's store.

**Lincoln.** February 5, 1862, John Barnes became the first postmaster in Lincoln. Barnes formerly had a store in Newtown and was the first postmaster at Coon Creek (see above). He was originally from Pennsylvania. The first post office was very likely on 5th Street, between G and F, north side. Barnes, also the tax collector, and Peter Singer, Justice of the Peace, had an office on the second lot east of the alley. Wm. D. Ingram became postmaster later, and the P.O. was located in his store on G Street. The post office became a "Presidential Office" January 1, 1892.




*The Lincoln Post Office in the last century was in Ingram's Drug Store, east side of G Street between 5th and 6th.*

**Sheridan.** July 10, 1868, was opening day for the post office. Mr. Young Dougherty was the first postmaster. Eugene Rogers of "Rogers' Shed," the founder of Sheridan, took over in 1870 and remained for 16 years. During its first 100 years of operation, the Sheridan office changed postmasters 15 times.

Two other post offices were established in Western Placer County just after the turn of the century. They were:

**Van Trent.** October 11, 1904 - March 15, 1918. Frank H. Peyton, first postmaster. Located at Dairy Farm Mine, near McCourtney Road and Bear River crossing (before the lake was formed).

**Cains.** June 19, 1906 - March 30, 1907. Edith M. Cain postmistress. Located at Garden Bar Road on the French (later, Jordan) Ranch. Site of 1863 town of Wilson. The old mine reopened in the 1906 era as the Olgol Mine.

### POLITICS AND PRECINCTS.

"Mass Meeting of the Democracy at Gold Hill. 500 Democrats present. Gold Hill, September 27, 1856." *(Placer Herald.)* Political activity served to provide excitement and entertainment for the hard working miners and farmers in the last century. There were flag raisings and banners, candlelit mass meetings, flamboyant oratory, and much cheering and booing.

The newspapers stoked the fires of political passion without restraint. The fiercely Democratic *Placer Herald* and the equally partisan, staunchly Republican, *Stars and Stripes* thundered at their political opposites and at each other.

The first election in the area after California became a state was in 1852. Precincts were located at Hill and Devane's store in Gold Hill, Cox's Ranch at McCourtney Road and Coon Creek, and at Gray's Hotel on Auburn Ravine east of where the present Nelson Lane crosses the creek. The next general election, in 1856, saw Newtown (Mt. Pleasant) added. By 1858, Fox's flat was a precinct.

Lincoln joined the political battles soon after its founding. By 1863, Lincoln had a Democratic Club with Peter Singer as president. Republicans were also active; John Barnes (postmaster) and George Aldrich were leaders. An election in the fall of 1863 shows the following number of voters casting ballots at the various precincts in the area:

| | |
|---|---|
| Virginia(town) | 119 |
| Gold Hill | 103 |
| Superior (Garden Bar) | 74 |
| Dunn's Shed | 47 |
| Fuller's Ranch | 30 |
| Cox's Ranch | 16 |
| Lincoln | 286 |

In 1868 a mass political rally in Lincoln brought in railroad coaches full of people from as far away as Marysville and Sacramento. Racism was very prevalent, directed mainly at Chinese and Negroes.

Local politics concerned voting for county supervisors (only 3 then), township constables, justices of the peace, school taxes and trustees, and local roadmasters.

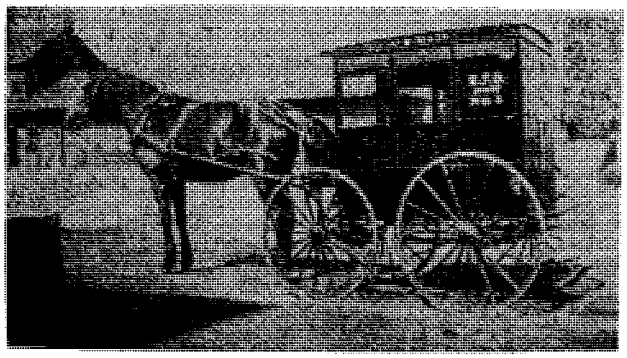
An 1877 Republican rally in Sheridan featured Mr. Fulweiler as speaker. Miss C. M. Pitcher, Republican candidate for Superintendent of Schools in Placer County, was there. The *Placer Herald* was not pleased "to see American women unsexing themselves and trying to occupy positions never intended for them by the Creator." Women, of course, had no right to vote in the 19th century.

1880 brought some excitement to Lincoln. The President of the United States was to stop in town (Rutherford B. Hayes). Schools and businesses, including the pottery, closed. Mrs. Hayes aroused much interest. She had brought strict temperance to the White House, and was often referred to as "Lemonade Lucy."

The political focus in 1886 was on the "Chinese problem." Lincoln had the "Lincoln Anti-Chinese Club." There were threats of boycotts against anyone hiring Chinese. The pottery became "all white." The basic concern was jobs.

1890 brought genuine local politics to Lincoln. The village voted to become an incorporated town on July 31, 1890. From then on the election of town trustees (now city councilpersons) would entertain the residents every two years. The first trustees elected were A. J. Gladding, John Haenny, Thomas B. Harper, Fred Wastier, Sr., and C. H. Hoppert. Town Clerk was Fred Wastier, Jr.; Town Marshal, T. McKenna; Treasurer, Wm. Ingram. Haenny was chosen by the trustees as the first mayor.

Town Trustee meetings provided entertainment too. Early features were ordinances against cows running loose in town, pig problems, the condition of residential and business outhouses, and a "house of ill fame" on Auburn Ravine.



*Austin B. Crook, grandfather of the present day (1990) Grey Brothers, carried the mail to some rural areas around Lincoln in this horse-drawn wagon at the turn of the century.*

# CHAPTER 17

## Down on the Farm

The longest-running show in Western Placer County was not gold, coal, or clay. Theodore Sicard planted and harvested wheat on the south side of Bear River in 1845. While visiting Sicard in 1846, Claude Chana noticed that pits of dried fruits brought from the east were being tossed away. He and Sicard gathered all the peach pits they could find and planted them. Chana had some almonds he had saved from a going-away party he attended before leaving St. Joseph for California. They planted these too.

Later, apple and pear seed, plum pits, and 200 grape cuttings from Mission San Jose (1848) were planted. Everything grew well in the Bear River bottom land. High profits were realized from fruit, vegetables, and wine sold to miners and early settlers. Thus began the industry of agriculture in Western Placer County.

Coon Creek attracted many of the earliest farmers in the Lincoln area. Christian Kier settled near there in 1846, and Cornelius Quinn arrived there on September 20, 1849. He believed that stock raising and farming were more important than mining. Quinn was the first to sow and harvest grain in the Coon Creek area. He also became a wealthy stock raiser, whose herds ranged as far as the site on which Lincoln was later built. He formed a partnership with Paul Cox, "Cox and Quinn." Their ranches were east of McCourtney Road and along Coon Creek.

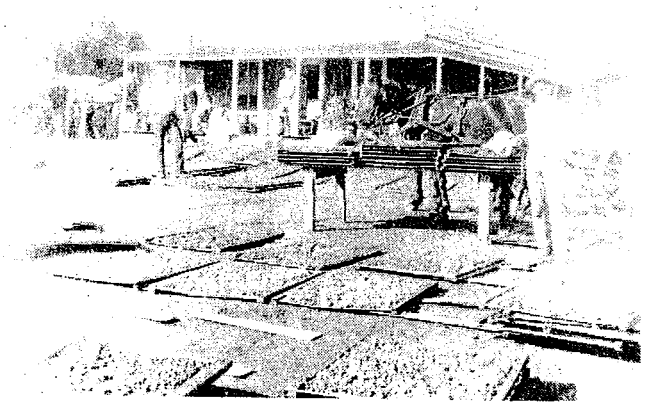
Many other settlers came to this area in the 1850's. Most ranches began with 320 or 640 acres. Typical of the time was an advertisement announcing the sale of J.P. Dameron's Coon Creek ranch in 1864: "140 acres under cultivation, 25 acres of hay, 150 head of fat cattle, horses, 2,000 bushels of barley, 1,500 bushels of wheat, 40 tons of hay."

In 1858 many "labor saving machines, reapers, headers" were reported operating on the farms, including the McCormick, or Manny, Reaper and the Haines Heading Machine. Smut was starting to affect the grain quality, so seeds were soaked in bluestone, or copper sulfate. Grasshopper plagues were especially harmful. The insects were reported covering fences, houses, barns and stripping the foliage and even the bark from fruit trees.

In 1855 Eugene Rogers started his shed at Sheridan (see Chapter 11). Mark and Mose Hopkins had a 1,000 acre ranch east of Sheridan, next to the James French ranch. French and Hopkins (of transcontinental railroad and San Francisco hotel fame) ran their cattle together. Hopkins was later instrumental in getting Dan Click's flour mill built and operating in Sheridan. In 1875 the mill was operating 24 hours per day. In 1885 Click modernized his mill, but by 1886 he was bankrupt.

Joseph Walkup (a senator, and then lieutenant governor) and Samuel Wyman had several thousand acres along Auburn Ravine east and south of Lincoln in the 1850's. They harvested the first large wheat crop in that area in 1852.

The showplace of early Placer County agriculture was the Nickerson Ranch on Doty Ravine, west of Crosby-Herold Road. Hundreds of varieties of fruits and grapes were cultivated. A three-story winery and brandy distillery, made of granite, 100 feet by 50 feet, was constructed. Its technology was quite advanced for the time. A detailed description of the Nickerson Ranch and winery, written in wonder and awe, can be found in Thompson and West's *History of Placer County*, pages 243 - 246 (1882; many libraries and individuals have copies and reprints).



*The Cartwright farm in Mt. Pleasant — drying raisins. Cartwright gave a part of this ranch on which to build the first Mt. Pleasant Hall (1892).*

Spring Valley Ranch was also a showplace, encompassing over 20,000 acres south of Lincoln. Begun in 1855 by George Whitney, it was developed later by J. P. Whitney. Many accounts of this ranch have been written.

The ranches with the largest assessed value in 1863 were those of Joseph Walkup (Auburn Ravine), Titus Ewing (Coon Creek near the railroad), the Chamberlains (Coon Creek near Manzanita Cemetery), and Jonathan Mariner (near Coon Creek and Dowd Road)—in that order.

30 years later (1892) Western Placer's biggest ranches were: Whitney, 21,756 acres; Kaseberg, 16,284; Mrs. Atkinson, 6,426; Peter Ahart, 4,200; J. S. Mariner, 3,113; James French, 2,788; and Christian Kier, 2,033.

The Lincoln area products were very familiar to early California State Fair goers. In 1869 the Chamberlains won the medal for the best 500-acre grain farm in California. Nickerson had the best red wine, best claret, best grape brandy, and best fruit display in 1871. E. J. Sparks (club wheat), Joshua Reeves (livestock), Chamberlain (Catawba wine), and Nickerson (a great many items) won first prizes in 1872.

The earliest vineyard and winery in the area was that of Stephen Burdge. He got the grape cuttings from Sutter's Hock Farm and planted them at his ranch on Doty Ravine and Wise Road. He made wine (from Sutter's grapes) in 1852. His own first harvest and pressing took place in 1854. In 1880 Burdge opened a winery in Lincoln, near the SW corner of 5th and E.

Turkeys were also plentiful in Western Placer in the 1860's. There were ranches near Lincoln and, especially, just east of Sheridan. In 1871 turkeys were selling for $1 - $2 per bird. (Chickens were $.75, and geese were $.75 a pair.) In 1874 a "turkey plague" wiped out the flocks on the ranches east of Sheridan.

By 1876 fruit was becoming economically important. Solicitors from the eastern states were here looking for fruit to buy. The first refrigerator cars were being built. 20 - 30 teams were busy hauling fruit into Newcastle, the major shipping point. C. M. Silva and Son was the big name in shipping and nursery stock.

Fruit and vegetables were also dried. Some prices paid by dryers to farmers per ton were: tomatoes, $10; peaches, $20; apples, $12; nectarines, $20; pears, $15; apricots, $40; and prunes, $50.

Whitney planted large acreages of citrus fruits and grapes for raisins. He founded the Penryn Fruit Co. By 1887 Placer County was called the "banner fruit county of the state," and had the best fruit display at the State Fair.

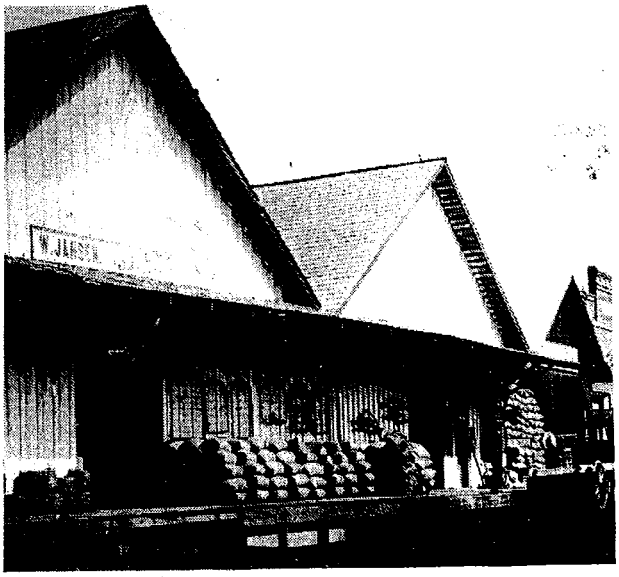
By 1890 the Mt. Pleasant area was famous for grapes, raisins, wine, and brandy. There was a move to rename the area "Vineland." The leading vineyards were those of Hiram Cartwright, followed by Crosby, Foster, Dr. Carey, Dr. Manson. Larkin Fowler advertised 100,000 grape roots for sale.

Lincoln's first cannery opened in 1895 (7th and H).

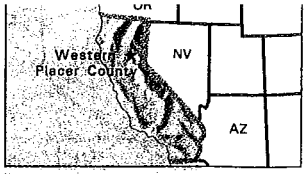
Newspaper articles about the "wheat belt of Placer County" appeared in 1881. It was described as 10 miles long, from Bear River to the American, and from the foothills to Sutter County. 128,000 acres of wheat averaged 18 bushels per acre. In 1882 wild geese were reported as a big problem to grain farmers.

Much of the wheat went through Lincoln's longest lasting agricultural business, that of Walter Jansen. When he went into business for himself in 1894, he was in the "twin warehouses" (still used in 1990) built by George Aldrich in 1880.

Meanwhile, what happened to Chana? He lost all his land to title problems and mining debris from Bear River. He moved to Wheatland and started a small winery, using grapes he bought from others. He had tried remaining solvent by opening a toll bridge.



*These "Twin Warehouses" were built just after 1880 and were the original location of Walter Jansen's grain business. They are now more than 100 years old and can still be seen rising above the brick facade in the middle of the Jansen Block.*

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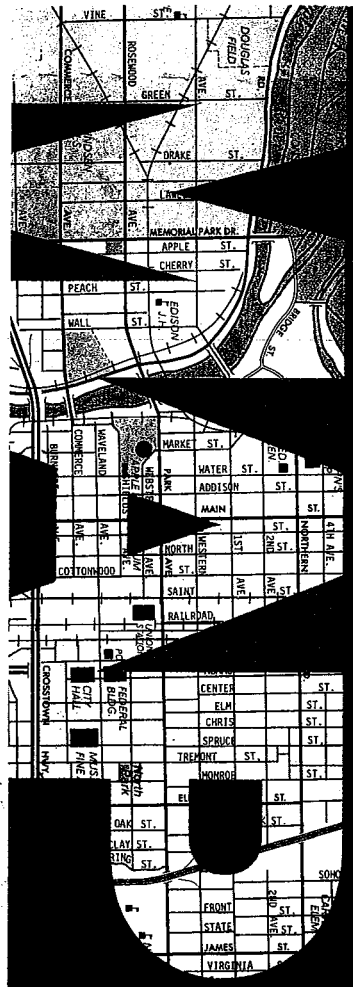
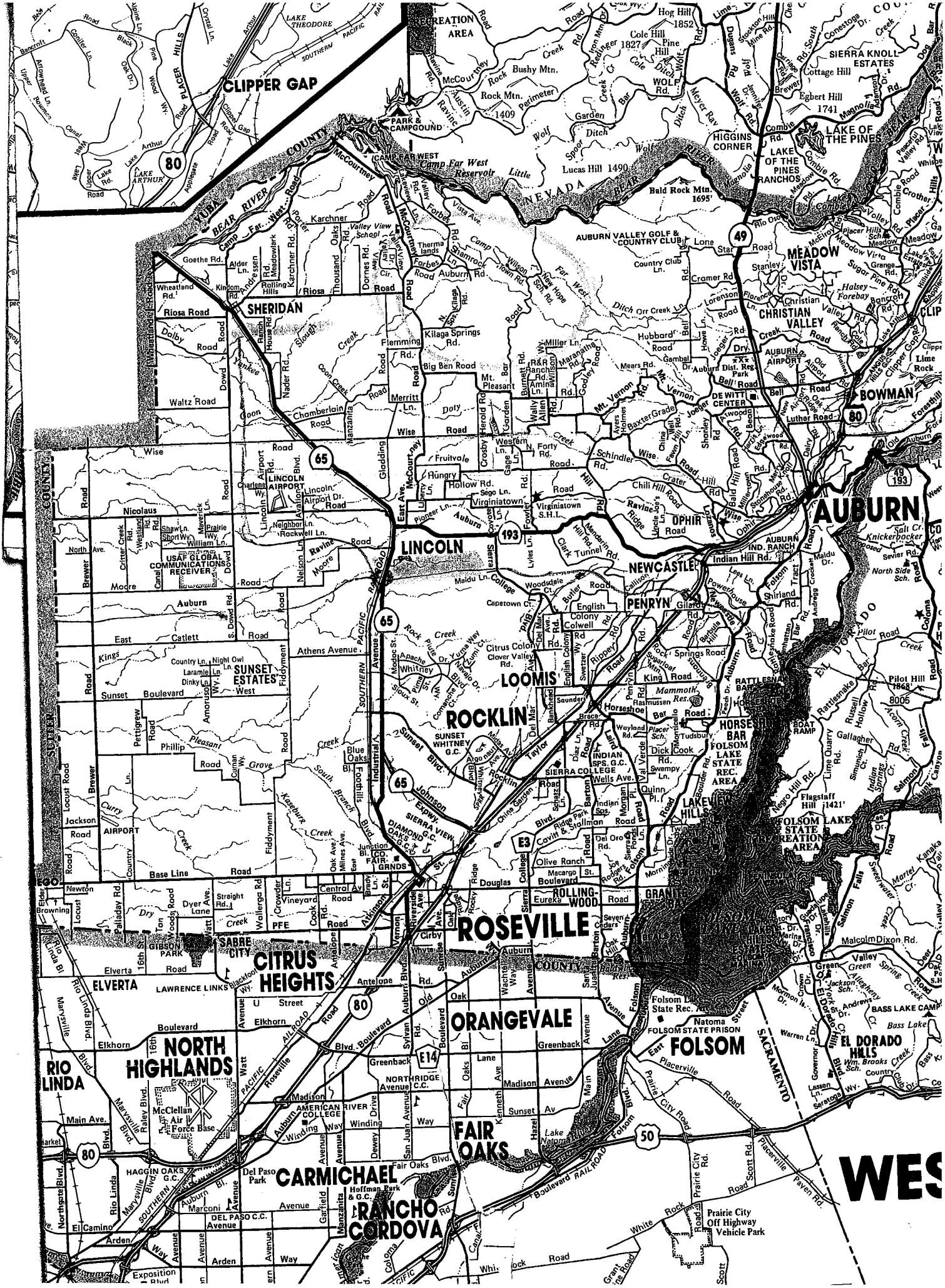
# Western Placer County

## California




CLIPPER GAP
LAKE THEODORE
RECREATION AREA
PARK & CAMPGROUND
CAMP FAR WEST
Camp Far West Reservoir
LAKE ARTHUR
PLACER HILLS
YUBA COUNTY
BEAR RIVER
NEVADA
BEAR
SHERIDAN
LINCOLN
LINCOLN AIRPORT
USAF GLOBAL COMMUNICATIONS RECEIVER
SUNSET ESTATES
LOOMIS
ROCKLIN
SUNSET WHITNEY G.C.
SIERRA COLLEGE
INDIAN SPS. G.C.
LAKEVIEW HILLS
FOLSOM LAKE STATE REC. AREA
FOLSOM LAKE RECREATION AREA
HORSESHOE BAR
BOAT RAMP
PENRYN
NEWCASTLE
OPHIR
AUBURN
AUBURN IND. RANCH
AUBURN VALLEY GOLF & COUNTRY CLUB
MEADOW VISTA
CHRISTIAN VALLEY
AUBURN AIRPORT
DE WITT CENTER
BOWMAN
HIGGINS CORNER
LAKE OF THE PINES
LAKE OF THE PINES RANCHOS
SIERRA KNOLL ESTATES
ROSEVILLE
ROLLING-WOOD
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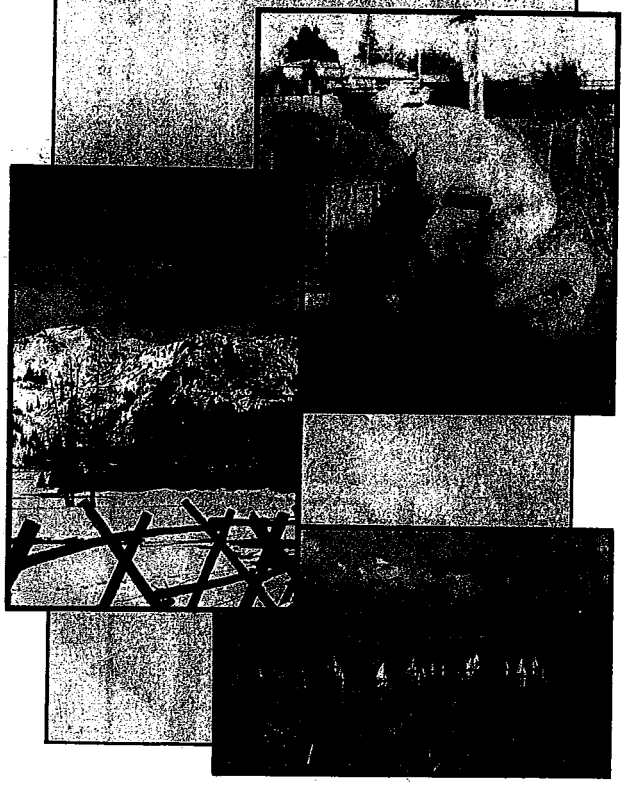

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of 11,000
our area,
of Folsom
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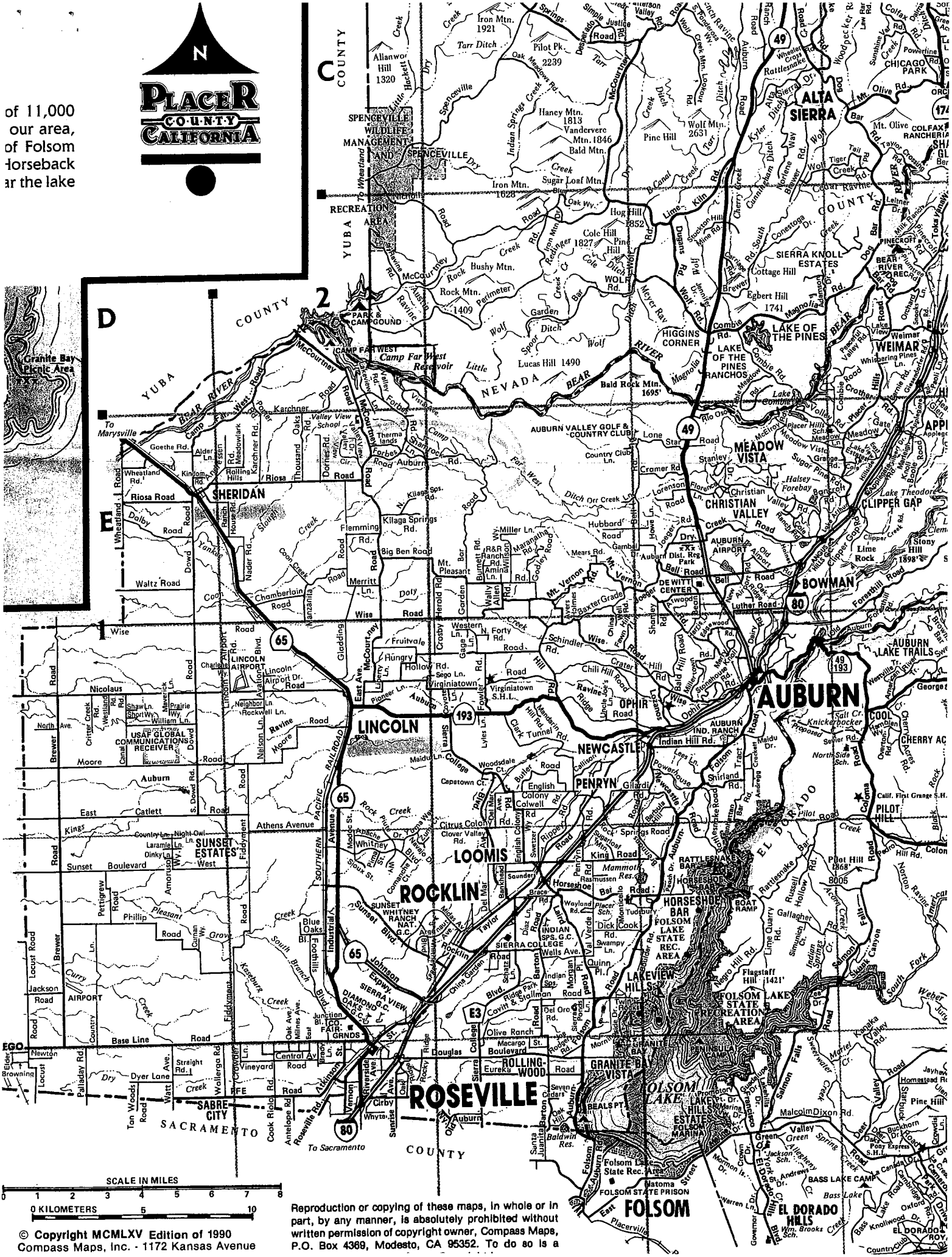


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# WESTERN PLACER COUNTY AND LINCOLN ACCORDING TO HISTORY

## Volume 2 (1901-1950)

By Jerry Logan

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e of the Stanford Ranch development.

**Chamberlain Ranch**. Established more than 140 years ago on Coon Creek north of Manzanita Cemetery, this ranch was owned by the Chamberlain family for more than 100 years. Over 2000 acres were devoted to raising stock and grain. Chamberlain descendants became prominent lawyers in Auburn, but still maintained control of the ranch.

**Oakwood Stock Ranch**. Melville Lawrence and Harry Comstock bought the old Kier ranch at Daneville — intersection of McCourtney and Fleming roads — just after the turn of the century. Harry and George Comstock were the men "on site" most of the time, and Lincolnites referred to the ranch as the "Comstock Ranch," although its official name was the Oakwood Stock Ranch. It was most famous for its thoroughbred racing horses, which were shipped all over the U.S. There was a full-sized racetrack along the east side of McCourtney Road for training. Sheep and other products were also raised on the place, and there was an impressive mansion southeast of the road intersection. The ranch had financial difficulties in the late 1930's. In 1942 Harley and Foryst Hutchinson bought the 1274 acres and established a profitable farming operation until well past 1950.

**Richardson/Wiswell.** This famous ranch was once a stagecoach stop and boasted the "Colonial House," the most elegant home and inn between Sacramento and Marysville. The farm once had 6000 acres, and through the years has produced grain and stock, especially sheep. It has been in the Wiswell family since 1864, and is located on McCourtney Road south of Coon Creek.

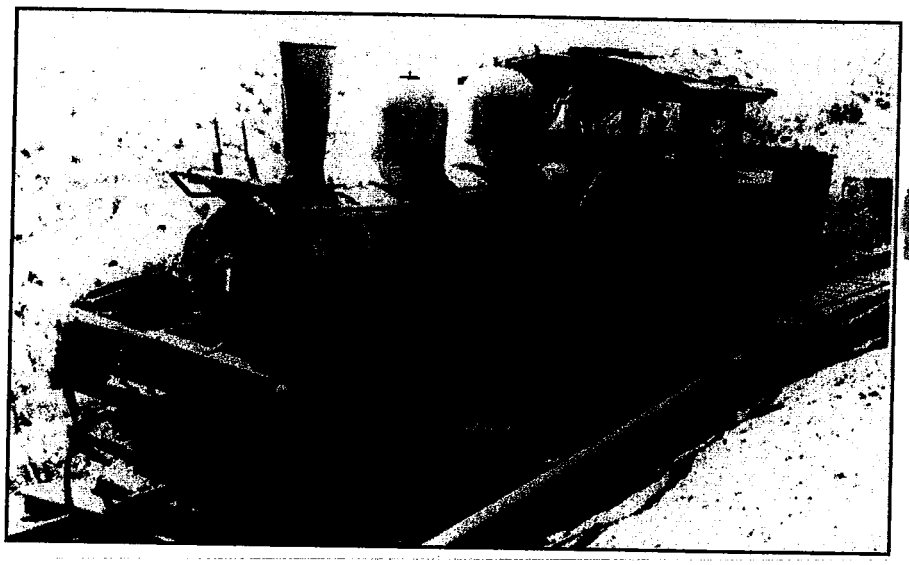
**Moore Brothers**. John Fred Moore purchased the old Hollis Newton ranch near the intersection of Moore and Fiddyment roads at the turn of the century. His son John, and then his grandsons Fred, Robert, and Roy expanded the ranch, producing mainly grain, to over 2500 acres by mid-century. This was a model farm operation for the entire 1900-1950+ era, boasting much mechanization and its own machine shop.

**James French.** Cattle and horses were the main products of pioneer James French on his ranch near the intersection of McCourtney and Forbes roads. He began this ranch in 1856, having come to Placer County in 1851. Before he died in 1922, his ranch had expanded to almost 3000 acres. For a time he was associated with the famous Mark Hopkins in stockraising east of Sheridan.

**Mariner Ranch**. The original Mariner ranch, begun in the area of Wise and Dowd roads in 1854, remained in the family through four generations and well past the 1900-1950 era. At one time the Mariners were farming over 3000 acres. The pioneer founder of the farm was Jonathan, followed by his son Jacob, then his son George, then his son Dick.

**Mitchell Ranch**. James Mitchell started the ranch near Dowd Road and Coon Creek in 1867. He died in 1888, but his wife, Lydia, continued and expanded the ranch to 1400 acres by the time of her death in 1921. The property remained in the family after her death, operated by sons-in-law George P. Ahart and James M. Tucker, until well after 1950.

**Albert French**. Hillsdale Ranch was established at the upper end of Garden Bar



**This Dairy Farm Mine Industrial Railway Shay No. 1 locomotive pulled ore cars from the mine on McCourtney Road at Karchner Road over 8 miles of track to Sheridan from 1915 to 1917.**

# CHAPTER 5
# SHERIDAN, THE OTHER SURVIVOR

Twelve towns were born in Western Placer County in the 1850's and 1860's. Ten of them died before 1880 (Gouge Eye/Pleasant Grove, Gold Hill, Oro City, Virginia(town), Newtown, Fox's Flat, Daneville, Wilson, Superior, Valley View/Whiskey Diggings). Sheridan and Lincoln survived. Lincoln developed a varied economic base, anchored by the pottery and fed by a large agricultural area that needed a shipping point and vital services. But what kept Sheridan alive? Mainly, location. The town was at a crossroads, and it was on the railroad. Its only claim to any economic importance was as a shipping point for the relatively few farms in the area. By the turn of the century, the ranchers, and a few travelers, supported a combination store and post office, a small hotel, a bar, a small railroad depot, a small flour mill, and a school. The hotel, flour mill, and depot were gone well before mid-century, but the servicing of auto traffic soon provided another small business. Had Sheridan not been on a highway and railway, it most likely would have disappeared as did the other early small towns that lacked a lasting manufacturing-commercial base.

Sheridan always appeared to be on the verge of becoming something other than a small crossroads village, but then disaster would strike. It had a flour mill, but that burned down. It had a second railroad connecting it to the Dairy Farm Mine and the town of Van Trent, but then the mine closed during WW I. A real estate promotion establishing several colonies for easterners seemed promising, but then stalled. A citrus boom to the east, in Thermalands, got off to a great start, but then a big freeze destroyed most of the trees.

Of all these disappointments, the big fire of August 1891 was the most crucial. The

Originally there were 28 electric street lights. The number was increased to 35 in early 1900. Mr. E.D.N. Lehe was the local representative for the "Yuba Light and Power Co." By the end of the year 1900 there was mention of a power substation of the "Bay Counties Electric Power Co." on the SE corner of 7th and G streets, when Mr. Lehe was ordered by the Town Trustees to drain his lot at that location. In 1901 the electric company was also ordered to move its power poles completely to the edge of G Street.

In those early years people knew little about electricity and had to be warned often not to touch live wires and downed wires. The lines tended to break and start grass fires. Power surges were strong enough to burn out all the lights in town occasionally, and power outages were frequent.

By 1903 the Bay Counties Power Co. was replacing bare wires with cables, etc. Also in 1903 electric power was turned on at the Gladding, McBean & Co. pottery.

In 1905 the existing company serving Lincoln was purchased by the California Gas and Electric Corporation, "the largest electric corporation in the world." The name was later changed to Pacific Gas and Electric Co. Thus PG & E was born, and the company served Lincoln through the rest of the 1900-1950 era and well beyond.

Lincoln celebrated the arrival of natural gas as a service of PG & E on July 7, 1939. Downtown streets were roped off for the occasion, and 1500 people attended the street dancing and other events, such as gas cooking demonstrations.

## ROADS AND ROAD NAMES

The oldest roads in Western Placer County have mainly disappeared. Those roads existing when Lincoln was founded in 1859 had developed wherever the going was easiest and shortest for getting from "here" to "there." Difficulty in crossing streams or other natural barriers might alter a direct-line route.

As the land became settled, and smaller farms were common, the people didn't like roads cutting through their property at all angles. Therefore, as roads were improved and as new ones were laid out, they tended to be put along property and section lines wherever possible.

Any of the original routes left today were either already along property lines, or they were in hilly or swampy areas where following the property lines would present difficulties for vehicles.

The original routes which remain are parts of those now named McCourtney, Sierra College, Highway 193, the eastern part of Virginiatown, Chamberlain, Wise (east of Wally Allen), Auburn Road, Pioneer Lane, and Karchner. For the most part, they follow the same routes used more than 130 years ago.

But most of the other roads we now use were constructed later.

## NAMING ROADS

The original roads were most commonly named according to the major towns they

connected: Sacramento-Virginiatown Road, Auburn-Marysville Road, etc. At the beginning of this century roads tended to bear numbers rather than names: Highway 99E, County Road #10, etc.

More recently roads have been renamed, the major roads often according to geography, other roads according to a prominent pioneer in the locality served.

## GEOGRAPHICAL NAMES

**Auburn Road** (Thermalands area). Originally this was part of the "Auburn-Marysville Road" coming down Mt. Vernon to Mears, then NW and across Coon Creek near Garden Bar Road, then down the present stretch to McCourtney.

**Big Ben Road** was named after the Big Ben Consolidated Gold Mining Company. The mine can still be seen on the south side of the road. The first shaft was sunk in 1863. In 1923 the mine was reopened, and was at a depth of 500 feet.

**Camp Far West Road**. Camp Far West was a U.S. Military outpost in 1849 on the north side of Bear River, about 1 1/2 miles below the lake. The name now designates the nearby lake and a cemetery founded in the immediate area in 1844.

**Chili Hill Road**. The hill east of Gold Hill was called Chili/Chile Hill after the Chileans who lived there before 1885, mainly the Cosme Vicencio family.

**Fruitvale Road**. The community of Fruitvale was named after the school organized there in 1888. The name and the school apparently originated with Lewis C. Gage, a local resident who became the school's first teacher. The old school is still there as a community hall.

**Garden Bar Road**. Garden Bar was originally a mining claim and crossing on Bear River. It was named after a Mr. Gardner, and was originally Gardner Bar. There was a Gardner Claim and a Gardner Company (mining) in the area.

**Gold Hill Road**. Gold Hill was a mining town founded in 1851. A monument marks the spot along the road just north of Auburn Ravine. There is also a cemetery, established in 1851, adjacent to the site.

**Hungry Hollow Road**. The road leads toward Mt. Pleasant, which was originally a mining camp named Hungry Hollow (1851-1855). The camp was immediately west of the present Mt. Pleasant Hall.

**Kilaga Springs Road**. The name Kilaga was originally often written Ki-La-Ga. It was formed from the first two letters of the last names of the owners of the Valley View Products Co.: Judge J.B. Landis of Auburn, E.C. Gaylord of Lincoln, and E.M. Kimberlin of Oakland. They started a resort at the site of the former Whiskey Diggings mine, and bottled the mineral waters found there. The resort was Kilaga Springs, and the "Ki-La-Ga Water" was sold in bottles in stores in many areas in the 1920's.

**Manzanita Cemetery Road** serves the cemetery as well as other properties. At this spot originally was a grove of oak trees and thick stands of Manzanita. In the earliest days it provided a hideout for horse thieves. It was called Manzanita Grove, and after 1855 Manzanita

School was located here. The original cemetery (1852) was at the NE corner of the grove.

**Mt. Pleasant Road** was formerly called Hawk-Logan Road (after two major ranches along the route). It was recently named for the community through which it runs. The name Mt. Pleasant comes from the school which was organized here in 1855, in the town of Newtown, formerly Hungry Hollow.

**Mt. Vernon Road** runs through the community of Mt. Vernon, named after the school built near the road in 1877. The road was referred to earlier as "Old Wagon Road." A Mt. Vernon Community Hall was built along side the road, but is now gone from the area.

**Nicolaus Road** connects Lincoln with the Sutter County town of Nicolaus. This road was the main road into Lincoln from the north and the west for many years. Within the city limits it was "Ninth Street," and it crossed the RR tracks and connected directly with G Street.

**Riosa Road.** Bear River runs parallel to, but well north of its namesake, "Riosa." The Spanish name for the river was Rio de los Osos, and also "Rio Oso," which the Yankees then condensed to "Riosa."

**Virginiatown Road**. The part of the road from Fowler Road east past the historical marker and on to Gold Hill is the original 1850's route. It formed the main street in the mining town of Virginia.

## FAMILY NAMES

**Andressen Road**. Christian Andressen, born in Norway, came from San Francisco to Sheridan in 1915 and started a general farm along the road that now bears his name. Hope Andressen Grey, his daughter, still resides in Western Placer County.

**Burnett Road** was named for "Ned" Burnet(t), a prominent resident on the road. He bought the Dr. Cary home in 1916. The Cary home, built more than 100 years ago, still stands along the road.

**Crosby-Herold Road**. Josiah Crosby had started a ranch and a mine in Mt. Pleasant before 1860. His place was 1/2 mile north of where Mt. Pleasant Road and Crosby-Herold intersect. To the east and south of this intersection stretched the ranch of Adam Herold. He was treasurer of the State of California when he bought the ranch in 1886.

**Dalby Road**.* Franklin Dalbey left Iowa and settled on 640 acres west of Sheridan in 1867.

**Dowd Road** honors the pioneer Dowd family. The original settler, James Dowd, farmed West of Lincoln. He was born in Ireland in 1827.

**Fiddyment Road**. The Fiddyments are a pioneer Roseville area family, but the road named after them extends into the Lincoln area.

**Fleming Road**. Albert Carlile Fleming came to California in 1853, to Gold Hill briefly in 1861, and finally settled in Lincoln in 1870. The Flemings were associated with the railroad, the post office, and several businesses in Lincoln. The Fleming farm was established

** The earlier family used Dalbey, changing it in later years to Dalby.*

northeast of the intersection of the present Gladding and Fleming roads.

**Forbes Road.** John Forbes and his sons Jack and Harold were part of the Thermalands orange orchard planting boom. They moved there from Mill Valley in 1913. The orchards froze in the early 1930s, and Jack, who was operating the ranch then, went into business in Lincoln as an insurance agent.

**Fowler Road.** Jeremiah and Elizabeth Fowler came around the Horn to San Francisco in 1849. After several moves, the Fowler family settled in Fruitvale, east of Lincoln, in 1870, and their descendants still prosper there and elsewhere in the area.

**Gladding Road** perpetuates a name long associated with the pottery in Lincoln. Charles Gladding was a founder of the factory in 1875. Later Gladdings also had a ranch near Coon Creek on what is now Gladding Road.

**Godley Road.** Sarah Godley and her son, Montgomery, came from San Francisco in 1890 to purchase one of the first parcels of land in the Heredia Tract. The road serves the present residents of that tract.

**Karchner Road** runs past the original ranch started by Nicholas Karchner in 1855 east of Sheridan. He was born in 1824 in Pennsylvania.

**McCourtney Road.** John H. McCourtney had a trading post on Bear River in 1850. He built a toll bridge across the river that year, thus making a more direct route from Sacramento to Nevada City via McCourtney's Crossing.

**Moore Road** was named after the family that has owned and operated ranches along the road since 1896. One of the oldest ranches in the area, the original ranch there was settled by George Sewell in the 1850s.

**Nelson Lane.** Nels Nelson was farming in the Central District more than 100 years ago. He was born in Sweden in 1849.

**Nader Road.** Henry Nader came to the Daneville/Manzanita area in the 1860s. He was born in Germany in 1830. For more than 120 years the Nader family operated the farm started by the original pioneer.

**Schindler Road.** John and Jacob Schindler had mines and farmland north of Gold Hill in the 1860's. They came from Switzerland.

**Wally Allen Road.** The Allen ranch west of the road is currently (1993) run by Wally Allen, Jr. It was founded in 1857 by his grandfather, George Allen, a seaman from Denmark.

**Wilson Way,** one of the newer roads, historically, was named after Warren Wilson, Sr., who operated a ranch on the old Steinger property there. Steinger was Mrs. Wilson's grandfather, and the property has been in the Steinger-Falconer-Wilson family for over 115 years.

**Wise Road** ends at Wise Power House just south of Auburn. The road was named after this power plant, which was in turn named after James H. Wise, an early assistant manager of P.G. & E.

WEST COLN
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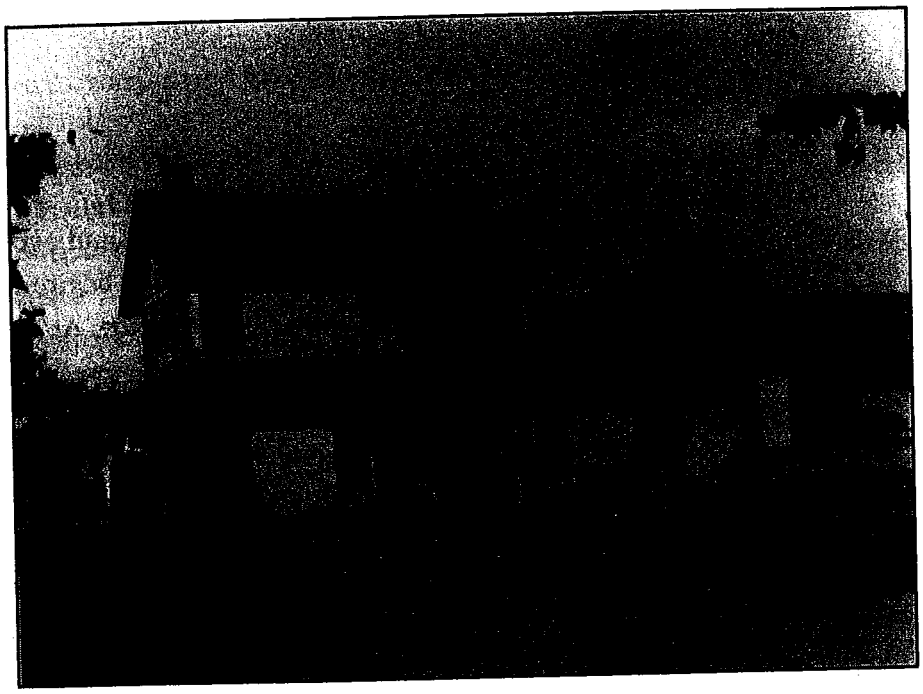

**Lincoln's train depot was demolished and became a parking lot in 1970.**

# CHAPTER 12
# FROM HORSE AND TRAIN TO AUTO AND PLANE

## HORSE

As the 20th century dawned over the eastern foothills on January 1, 1900, Lincoln awoke as usual to the sound of horses and wagons or buggies on its unpaved streets; and occasionally the shriek and rumble of a steam powered train unsettled the silence and people's nerves.

Horses and mules powered almost all of the road and farm vehicles. Accidents usually involved runaway horses or collisions between horse-drawn vehicles and trains. There were no garages in town; instead there were livery stables and blacksmith shops. Livery stables served to accommodate and feed horses, and these establishments also rented out horses and horse-drawn vehicles. Blacksmiths "shoed" horses, repaired wagons and buggies, made metal parts, and repaired farm equipment.

**Mail** was delivered to rural areas by horse and wagon. Children drove, or were driven, to school by horse and buggy, or they rode horses — that is, if they were not within walking distance. Schools often had facilities for stabling horses. The unpaved country roads and city streets were smoothed out periodically by horse-drawn graders, and in the summer the dusty surfaces were "sprinkled down" by horse-drawn sprinkler tank wagons. In very rainy weather roads often became muddy, rutted, and even impassable.

**On the farm**, teams of many horses or mules pulled larger machines, such as harvesters. Plows were drawn by horse, mule, or even oxen. Large haybalers on wheels usually derived their power and locomotion from animals. Fruit and other produce was hauled to market or

## Shirlee Herrington

**From:** paula bradley <cluckers444@yahoo.com>
**Sent:** Friday, June 15, 2018 7:09 AM
**To:** Shirlee Herrington
**Subject:** Hidden Falls expansion

Dear Shirlee Herrington,
On behalf of the many trail riders who use Hidden Falls, I want to add my voice to ask that the Park be expanded. I drive a fair distance to ride there and the parking is not adequate for the number of arriving trailers. The Park trails are so popular (and crowded) that the chance to expand the acreage should be jumped on!
Popular parks need thoughtful and forward thinking management. Trail use rules should include provisions to reduce hiker-equestrian contact especially at tight or potentially dangerous locations.
Increasing acreage would obviously reduce potential conflicts.
Paula Bradley

Sent from my iPhone

Shirlee Herrington
Placer County Planning Commission

13 June 2018

Dear Ms. Herrington,
My letter is response to the NOP for an EIR to expand Hidden Falls Park. As a property owner on Mount Vernon Road relatively near Mears Road, I was (and am) impacted by park visitors. Despite that, I'm in favor plans to provide additional access, trails, and parking for trails from the Bear River to Garden Bar. Hidden Falls Park is a gem for Placer County, providing opportunities for high quality non-motorized recreation outside the American River canyon area. While I sympathize with the concerns of residents who live on access roads near proposed parking areas, the new access will also provide opportunities for them to visit the park easily.

Placer County should, however, be sensitive and responsive to concerns that can be mitigated. Speeding, partying, littering, noise, vandalism, or ANY criminal activity should be addressed immediately. A strong park ranger presence should be maintained, particularly on weekends and holidays during good weather. Large events should not be permitted, or at least be limited and policed (at cost to the vendor). Similar to the existing system, online parking permits should be used on weekends and holidays at all new parking areas, and street parking prohibited. If possible, remote surveillance measures should be installed at all parking areas. Road maintenance should consider increased traffic. If these issues can't be mitigated, then new parking areas should be delayed or scaled back in size.

Thank you for considering my comments.

Jane LaBoa
7425 Mount Vernon Road
Auburn, CA 95603

## Shirlee Herrington

**From:** Marti Snyder <mail4marti@gmail.com>
**Sent:** Monday, June 25, 2018 10:28 AM
**To:** Shirlee Herrington
**Subject:** Garden Bar Road Impact For Park Access

Shirlee:

I writing to voice my concerns about the traffic which will be on Garden Bar for park access.

First of all I  the county  by law must comply with the same codes and laws developers have to.

When we subdivided our 160 acres into three parcels we were required to put in a 18 foot wide road with turn outs, that is for 3 parcels.

I understand with the zoning up and down Garden Bar Road  you will never have developers to foot the bill, but the county still must comply with what everyone else has to.

If you paint a stripe down the middle of the road as is exists now any one can see there is not the required space on either side to be a legal lane for traffic.

I would hope after the county improves the road to comply with codes, a solid yellow line would be painted, no passing signs, and a speed limit imposed.

I drive as far to the right as I can, and I still have had so many narrow misses by the people who drive down the middle.

I would like this entered as a formal comment to the public record.

Marti Snyder
Garden Bar Road Resident

**From:** Steve [mailto:lineman@zetabroadband.com]
**Sent:** Saturday, June 09, 2018 8:15 AM
**To:** Lisa Carnahan
**Cc:** Connie; 'Jeffery Snyder'; Marti Snyder; coledoupnik@gmail.com; emick34@yahoo.com
**Subject:** Hidden Falls expansion - Garden Bar Rd.?

Lisa,

The recent publication on the proposed expansion of Hidden Falls Park mentions a potential new parking lot on the county owned parcel off Garden Bar Road. Does the proposal include public access to the park via Garden Bar Road before road improvements are complete?

Regards,
Steve Brown

**From:** Steve [mailto:lineman@zetabroadband.com]
**Sent:** Wednesday, June 13, 2018 9:23 PM
**To:** Lisa Carnahan; Shirlee Herrington
**Cc:** Connie; 'Jeffery Snyder'; Marti Snyder; coledoupnik@gmail.com; emick34@yahoo.com; Placer County Environmental Coordination Services; 'Shawn White'; Shawn & Dana White; Dave Howe; 'robert Brown'; Heather Brown
**Subject:** RE: Hidden Falls expansion - Garden Bar Rd.?

Lisa, Shirlee,

Thank you for the information. I do have some concerns with regard to the proposed parking lot on Garden Bar Rd. and potential public access via Garden Bar Rd. In looking at the final EIR, the proposed access is stated to be the same as stated in the draft EIR which indicates the new parking area in conjunction with widening Garden Bar Rd. to a hard surface of 18 feet with 2 foot shoulders (PHASE 2). Per the DEIR and EIR, it appears quite evident that no public access would be allowed via Garden Bar Rd. until stated improvements are complete. Being a resident of Garden Bar Rd living near the proposed access, I can tell you that the existing conditions and characteristics of the road are insufficient for the current traffic. The introduction of any additional traffic would put both visitors to the park and local residents at undue risk under current road conditions.
I would like this entered as formal comment to the public record.

Regards,
Steve Brown
Garden Bar Rd.

**From:** Steve [mailto:lineman@zetabroadband.com]
**Sent:** Sunday, June 24, 2018 9:21 AM
**To:** Shirlee Herrington; Lisa Carnahan
**Subject:** RE: Hidden Falls expansion - Garden Bar Rd.?

Shirlee, Lisa,

Thank you for conducting the scoping meeting on June 14. I know it must be difficult when holding those meeting with folks that are upset with the project and I can empathize with your roles in that.
I would like to confirm what I heard from you at the meeting (pertaining to access via Garden Bar Rd.) as I can't seem to find it in writing in any of documents. Please correct me if I'm mistaken.
This is what I heard at the meeting regarding access via Garden Bar Rd.

- Access via Garden Bar under current road conditions will be limited to 25 vehicles per day by reservation only and only on weekends and holidays. I would also like to know how this will be managed on site; Will there be an attendant posted at the park during those times? I will predict that, as soon as any access via Garden Bar Rd. is publicized in any manner, the general public will show up, reservations or not.
- Those 25 vehicles will not have in and out privileges
- Vehicles will be limited to passenger cars only (no trailers, rv's, etc)

Please confirm or correct me on these 3 items.

I also have some recommendations if / when this type of access via Garden Bar Rd is granted.

- Post a prominent sign on northbound Garden Bar Rd. at both intersections of Garden Bar Rd. and Mt. Pleasant Rd stating "No Access To Hidden Falls without reservation". I believe this will help eliminate unnecessary and potentially dangerous increase in traffic on Garden Bar Rd.
- Decrease the cost of reservations for Placer County residents or increase the cost of reservations for non-Placer County residence. If Placer County is truly conducting this project in the interest of their constituents, this only makes sense: Just as the state requires increased fees for non-residents for recreational fishing license fees for example.
- Eliminate any "classroom size" access. This is too vague and I've heard numbers of up to 200 people. If the county has deemed that a limit of 25 passenger vehicles would be safely allowable, it doesn't make sense to think we can allow 200 people. Assuming a 4 person average occupancy per vehicle, which is optimistic, this would be double the proposed limit. The "classroom size" access needs to be eliminated until such time as improvements to Garden Bar Rd. are complete.

Thanks again for the information and I look forward to your response.
Regards,
Steve Brown

**From:** Steve [mailto:lineman@zetabroadband.com]
**Sent:** Tuesday, July 03, 2018 9:13 AM
**To:** Placer County Environmental Coordination Services
**Cc:** Shirlee Herrington; Lisa Carnahan
**Subject:** RE: Hidden Falls expansion - Garden Bar Rd.?

Shirlee, Lisa,

Thank you for confirming receipt of my comments. Can someone please provide a response to my questions confirming what was said at the scoping meeting pertaining to the initial access via Garden Bar Rd.

This is what I heard at the meeting regarding access via Garden Bar Rd.

- Access via Garden Bar under current road conditions will be limited to 25 vehicles per day by reservation only and only on weekends and holidays. I would also like to know how this will be managed on site; Will there be an attendant posted at the park during those times? I will predict that, as soon as any access via Garden Bar Rd. is publicized in any manner, the general public will show up, reservations or not.
- Those 25 vehicles will not have in and out privileges
- Vehicles will be limited to passenger cars only (no trailers, rv's, etc)

**Please confirm or correct me on these 3 items.**

Thanks,
Steve

Shirlee Herrington **sherring@placer.ca.gov**

Lisa Carahan **lcarnaha@placer.ca.gov**

SEIR Hidden Falls

Twilight Ride Property

Harvego Bear River Area

We are opposing the Hidden Falls expansion of Twilight Ride Property and Harvego Bear River Area for new vehicle access and parking.

1. Cramer Road cannot adequately handle the additional traffic that would be using the proposed parking lot. The roadway is too narrow, has no centerline and very sharp curves with ditches on each side. It is already a dangerous road that has more than it's share of traffic accidents.
2. Bell Road, although wider and with a higher posted speed limit, has several sharp curves, a narrow bridge and with the proposed increase in traffic would create an unsafe roadway and a dramatic spike in traffic accidents.
3. Lone Star Road has some of the same concerns as Bell Road. It is wider than Cramer Road but narrower than Bell Road. It has three dangerous curves, one of which is completely blind, no shoulders and ditches on both sides.
4. The intersection of Lone Star Road and Hwy 49 is not adequately designed to handle the increase in the proposed traffic volume. Sight distance southbound from north of the intersection is very limited. The speed of traffic on Hwy 49 makes it extremely difficult to make a left turn northbound or southbound on Hwy 49 or make a right turn onto Hwy 49; as there are no acceleration lanes. Adding the proposed car, truck and horse trailer traffic to that intersection would create an extremely unsafe condition. Cal Trans will not place a traffic signal at the intersection due to the limited southbound sight distance and lack of right of way. Therefore the increase in traffic that is proposed will make the Lone Star/Hwy 49 intersection even more dangerous.
5. Auburn Valley Road is a <u>privately built and owned</u> roadway, which does not meet county road standards, maintained by the AVPOA supported by homeowner's dues. To allow the proposed volume of traffic, (cars, trucks and horse trailers), would not only be dangerous to the current residents but place a unfair cost burden on the approximately 140 residences.
6. The total cost of this proposed project to the taxpayers is unreasonable in relation to any benefit derived. A regional park designation is just that, yet most of the Hidden Falls use comes from non-Placer residents who do not support the financial burden created by Hidden Falls and the parking lot proposals. Cost of building and maintaining the parking lots, personnel costs to monitor the lots, patrol the park, higher crime, homeless camping, trash and the increase in potential fire danger more than out weighs any benefit that these two parking lots will provide.

Michael & Mary Lake
PO Box 7497 (6170 Viewridge Drive)
Auburn, CA 95604-7497

## Shirlee Herrington

**From:** Spencer, Nicole <Nicole.Spencer@cbnorcal.com>
**Sent:** Saturday, June 16, 2018 9:43 AM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls expansion project

Hello.

I wanted to send kuddos to you and Placer county for working so hard to put in trails and ways for our residents to enjoy nature and the beauty that the foothill provides. We pay high taxes in CA and the weather and nature are the reasons why many people come here, stay here and flourish....without that, why stay in California?

I live in North Auburn and hike, ride horses and kyack. My clients are mostly active and do the same....as well as those clients that come from out of the area. However, from N. Auburn it takes 20-30 minutes to get to Hidden Falls, Empire Mine, the canyon and other trails. To have a place to go that is closer, is fantastic!!!! Thank you!

Sincerely,

**Nicole Spencer**
d. 530-886-5720
cell/text 650-537-1245
Masters Club 2017
www.NicoleSpencerHomes.com
Facebook

**Nicole Spencer | Realtor**
**Cal BRE# 02008447**
COLDWELL BANKER RESIDENTIAL BROKERAGE
500 Auburn Folsom Road Suite 300 | Auburn, California 95603

*I have not verified any of the information contained in those documents that were prepared by other people. *Wire Fraud is Real*. Before wiring any money, call the intended recipient at a number you know is valid to confirm the instructions. Additionally, please note that the sender does not have authority to bind a party to a real estate contract via written or verbal communication.

## Shirlee Herrington

**From:** nina burkett <justrideandshutit@gmail.com>
**Sent:** Friday, July 06, 2018 2:54 PM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls comments

My name is Nina Burkett I am in support of the Hidden Falls Expansion Project. I have lived and ridden horses out in the area for 40 years. It is such an importance to have a beautiful positive place for families to enjoy and explore. Having a place such as the expansion would be such a great asset for the community as well as surrounding businesses that can also help to generate more income for the area. Thank you for your time.

July 6, 2018

RECEIVED
JUL 09 2018
CDRA



Attention: Shirlee Herrington
Environmental Coordination Services
Community Resource Agency

Regarding Access to Hidden Falls Park

We have lived on Lone Star Rd. for 35 years and are greatly concerned about the plans being proposed for the purchase of Twilight Ride property and expansion of HFP.

We attended the first meeting months ago and felt hope that the planners of this really were listening to the people who lived in this area. At that time I felt they would not go forward with their plans. Months later I was surprised to hear they had used this time to further develop their plan and purchase property to start the project. Now it feels like a case of "You can't beat City Hall!" I hope this is not the case. I love my community and Auburn. All the reasons most of us moved here for will be altered forever by this decision.

In casting your vote, please put yourself in our shoes. Who is this really being done for and at what cost? The money to do it presents a big question but the higher cost is the potential of severe accidents even resulting in loss of life.

Already when pulling out onto Lone Star it is hazardous with current traffic. even after looking both ways, seeing no cars and being extremely careful to execute your turn, there are surprises. Blind curves and dips in the road often results in a surprise car in your rear view mirror as you pull out and unexpected cars popping up over the hill of oncoming traffic. There are many areas along these roads like that and I can foresee multiple extreme accidents occuring. Imagine when normal size cars often have trouble executing these roads safely but now truck horse trailers will be coming up on cars pulling out of their driveways from some of these blind spots. and won't be able to stop in time due to the weight of their vehicles.

Most of us who. have lived in this area have knowledge of some terrible accidents. that have resulted in death. Yet some have inquired to have roads improved only to be told there are not enough statistical injuries or fatalities to warrent the expense. I think the size of the trailers and increased traffic on these roads will increase the danger.

I ask you who vote on this decision, "is not one death caused by the proposed changes worth it?" What if it was your family member who was injured or died from it.?

Ask yourself, "Who is really benefitting by this decision?" "Who is being hurt significantly by the choice to do this?" If you made this country area your home and chose to raise your family here, would you want these kind of changes made. Please think of the people who are so opposed to this plan and given you very sound and true reasons not to go through with it. Please care for we people living in this area and renew our belief in the system that has given you the opportunity to represent us. I trust you will make the best decision if you vote to help the people who are expressing their heartfelt reasons for not altering their home area.

Thank you for listening and please continue to listen to what is being said. We truly support all the statements that have been made to you in support of abandoning the proposal to purchase property to forward this plan.

People who live here have to make often frightening maneuvers to turn onto Hwy 49. from these country roads. Imagine having to negotiate a turn onto Interstate 80 where traffic is moving 65 mph or more. This is what it is like entering Hwy 49. And now we are being asked to negotiate turns from Hwy 49 to country roads

which are narrow with blind curves and other hazards. Now picture further complicating it with heavy truck and horse trailers "sharing" these roads with you. Please make your vote count for saving lives by preventing increasing severe accidents by adding these additional vehicles to roads that already can barely handle current traffic.

Sincerely and with appreciation for your consideration,

Susan and (Cornelius) (Cb) Lane
11380 Lone Star Rd.
Auburn, CA 95602
(530) 269-2143

## Shirlee Herrington

**From:** Heidi Storm <heidistorm@msn.com>
**Sent:** Friday, June 15, 2018 3:19 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls Expansion

Hello Sherry,
This is just a quick note to share my support for the expansion of hidden Falls Park. I am a hiker and an equestrian and I recognize how valuable parklands are to individuals and communities. I completely respect the concerns of the people that live along Meers road and understand the fears people have about the expansion. The new restoration-required parking plan has really helped the park and this could be continued after the expansion. Perhaps other steps can be taken to prevent overuse and abuse of the Park as well. I would hope that with continued careful planning and wisely enforced rules, the expanded park would be appreciated by those living close to it as much as for those who travel to visit it. Having the land turn into neighborhoods and busy streets and commercial properties would ultimately be the alternative.
Thank you,
Heidi

RE: Hidden Falls Regional Park – Bell Road Access on Twilight Ride

Thank you for the opportunity to comment on the above subject at the recent public meeting.

Below are questions to clarify the situation and commentary.

**Land Trust and Placer County**

What is the relationship between the Land Trust and Placer County? Is Placer County required to assist the Land Trust? The reason for this question is the purchase of the Twilight property. By purchasing this property, not only will tax money be used to purchase the property, the land tax income will no longer be collected by the County from the seller. This appears to be a "nice to have" project with financial tax payer burden.

In addition to the land purchase, Placer County is proposing to remove a pond (wet land) and lay a large asphalt parking lot. Are grants involved to support the financial burden or will tax dollars be used for this portion of the project? It is concerning that a wet land would be removed when we all are aware of the importance of water in California. It may be a better idea to invest in creating a water reservoir rather than removal of this large pond for asphalt.

The two bridges over Racoon Creek – what is the cost burden for engineering, architecture, and installation as well as maintenance? Who will financially support this investment? Will this be a tax burden?

The planned trails also carry a cost. Who will financially support this project? Is this additional tax burden? What is the expected expense to create the trails?

The showers and rest rooms as well as drinking fountains will be supported by proposed on site ground wells. This project creates a commercial environment with commercial water use. What is the contingency plan if the surrounding residents' wells go dry due to the County's commercial use? What will be the cost associated with the infrastructure? What will be the cost of the showers, drinking fountains, and rest rooms? What is the associated cost of maintenance? Will the cost be an additional tax burden?

**Consultants**

What is the name of the firm and what qualifies this consultant to provide guidance on this subject matter?

Was this the same consultant used for the Mears Road project?

What were the payments made to this consulting firm?

2016

2017

2018 Payments and Obligations

What are future forecasted payments as they relate to this project and expansion?

What is the relationship of this consulting firm and the Land Trust?

Was the consultant chosen during a bid process? If not, why no bid process? If a bid process, why was this firm chosen for this project?

**Parking Lot**

What is the estimated cost to build the parking lot and entrance and exit accessibility. Will the tax payer be burdened with the associated cost?

**Property Value Loss**

Is there a contingent liability associated with possible property value loss for those living close to the property?

**Traffic**

There are substantial concerns regarding the safety of Lone Star, Cramer, and Bell Roads. The residents are familiar with the road conditions and unsafe road curves and drive these roads appropriately. The County has been put on notice that increased travel by vehicles, trucks and trailers will create a dangerous environment. Will the County take out liability insurance or will the tax payer be burdened with paying law suits associated with the expected collisions or will be County repair the roads appropriately? What will be the associated cost to bring the roads to acceptability based on expected travel? Will this cost be supported by the tax payer?

**Fire**

You were made aware of the residences' concern regarding fire. The residents know how to be careful and considerate when working in yards and fields, however, out of towners do not realize how quickly a fire can spread. It only takes a cigarette or joint to begin a fire where the winds pick up during the afternoons. Please have substantial fire fighting equipment nearby should there be a fire created by a visitor. Will the tax payer carry this financial burden?

**Homeless**

How will the county prevent the homeless from camping in the area and using the free showers? The residences expect a significant increase in loss and trespassing. How will the County address these concerns?

**Construction**

What will be the working hours of the construction teams? Who will be responsible for cleaning the roads from the tossing of garbage from the construction trucks? We always know when there is a nearby project by the increased amount of refuse on the side of the road. What will be the increased large equipment traffic on the surrounding roads and how will this traffic be minimized?

**Refuse**

How often will refuse be removed from the park? Does this mean that additional refuse trucks will travel the area? Will the tax payer be responsible for paying for the refuse removal?

How may receptacles will the County install in the area, and what will be the associated cost.

**Parking Lot**

Will there be a gate that opens during the open hours and closed at the end of the day?

What are the hours of operation?

Will there be a reservation system?

What is the associated cost to set up the reservation system?

Are the reservation participants public information?

**Supervisors**

Why did Supervisor Montgomery and Holmes vote no? Please pay attention to their vote. Supervisor Holmes lives on Bell Road and Supervisor Montgomery represents this area.

Why did the other Supervisors vote yes?

**Financing**

Will a bond be introduced to pay for the cost of this project?

If so, what is the public votes no?

If no bond, how does the County plan on financing this project? It is a concern that the County is considering spending millions of dollars without an apparent income stream and no reasonable payback period.

**Suggestions**

Perhaps this is a "big bang" project; too big and burdensome with more risk than reward. If this project moves forward is it possible to begin small to absorb the increased traffic and make a decision going forward as a go/no go?

Is there another location that would be more appropriate? There was a person at the meeting who offered his property. Has this property been considered? Why not use his ranch for Hidden Falls access?

Would a parking lot on Highway 49 with a shuttle be appropriate? Would a horse trail and hiking trail from a highway 49 parking lot work with a very small entrance (no parking) on Bell?

What is the downside of not doing this project? I cannot see an upside to moving forward with this project. I sincerely do not believe that more people will be using local restaurants or purchasing at stores.

Would it be more beneficial to use the money for a water reservoir to support the agriculture and residents?

It may be appropriate to create a small resident committee to assist with this project and provide guidance. If such a committee will be created, I would raise my hand to volunteer.

**Summary**

Please do not move forward with this project. The increase in traffic and people in this area will destroy the quiet, agriculture environment and negatively impact the beauty of this area from Twilight Ride to Lone Star out to highway 49 and Cramer Road as well as Bell Road. Expanding roads and increasing traffic and signage will create an ugly, loud, busy, and littered environment. This project does not appear to enhance the area, create an income source, or benefit the area residents and Placer County residences while creating a new tax burden.

Thank you for the opportunity to comment on this project.

Michele Calbi

4984 Bell Road

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JUL 06 2018
CDRA

June 30, 2018

Shirlee Herrington, Environmental Coordination Services, Community Development Resource Agency
3091 County Center Dr
Suite 190
Auburn, Ca. 95603

To the members of the Board of Supervisors, Planning Commission, Placer County Parks Commission, Municipal Advisory Commissions

I am opposed to creation of a parking lot in the residential areas off of Bell Road in Auburn. The approval by any elected officials of this development will result in my voting for those individuals opposing the plan.

Sincerely

G Leeds

Gary Leeds
4101 Monteverde Drive
Lincoln, Ca. 95648

## Shirlee Herrington

**From:** Marianne Stuart <mariannestuart49@gmail.com>
**Sent:** Friday, July 06, 2018 7:07 AM
**To:** Placer County Environmental Coordination Services
**Subject:** hidden falls expansion project

I totally support the HIdden Falls expansion. The explosive growth in use once the park was opened shows how much of a need there is regionally for parks and open space. It only makes sense to link the Big hill Bear river and other Ranch acquisition properties And additional parking is already needed during high use times. with expansion and development in all the counties surrounding And including
Placer more open space hiking, riding and walking trails are needed . And with an aging population who needs trails not bike parks or playgrounds this is an appropriate use of taxpayer dollars And serves the tax paying population - older folks particularly old women!!!

Marianne Stuart

8312 Yvonne Way

FAir Oaks, CA 95628

Sent from my iPad

## Shirlee Herrington

**From:** Kristi Christianson <kchristianson08@gmail.com>
**Sent:** Friday, July 06, 2018 11:52 AM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls Comments

Hello,
These are my comments in support of the Hidden Falls project.
My name is Kristi Christianson and I live in Newcastle. I grew up in Granite Bay/Roseville and have been in the area since 1970. My family has been in the area since 1950. I grew up across from Mrs. Cavitt's ranch where I could ride my horse or hike for hours and see new things in nature everytime. I have seen the development in this area and wish they had done more to save these amazing treasures from being destroyed forever. With Hidden Falls, the county has preserved a beautiful piece of what the area once was. I completely understand how local residents feel about the traffic. I have been there. But if given the option, I would rather have had a park and not the multple developments that went in. I fully support expanding Hidden Falls and saving this for future generations to enjoy nature. If there is another meeting on this issue please let me know.
Thank you,
Kristi Christianson
(916)365-6796

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JUN 22 2018
CDRA

June 19, 2018

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Notice of Preparation / Hidden Falls Expansion Project

My comments and concerns on this proposal is as follows:

This proposal is currently agriculture zoned land, this proposal changes the zoning to Recreational without a Zoning Text Amendment. The County would not allow me to go outside my zoning of Residential/Agriculture to commercial. Just because the County is the Lead Agency for the Expansion does not mean they are exempt from zoning requirements.

This same department is spending time and money on how to reduce our carbon footprint on the environment, but this proposal is encouraging 100 plus vehicles and 40 horse trailers into a part of the county that is not zoned for that amount of traffic.

Placer County is fortunate to have 2 State Parks and several other areas to hike, ride and walk. I WAS a supporter of Placer Legacy and Placer Land Trust (including it in my trust) but seeing how the County is managing their current land donations I am having second thoughts. Their original concept (for both) was to preserve the land and not exploit it.

I don't want my tax dollars supporting to this expansion.

Wrong zoning for this proposal...

Lorrie Lewis

Lorrie Lewis
6245 Wise Road
Newcastle, CA 95658
Lorrielewis6@gmail.com

## Shirlee Herrington

**From:** Sarah Sullivan <svsole@gmail.com>
**Sent:** Wednesday, July 04, 2018 11:10 PM
**To:** Placer County Environmental Coordination Services
**Subject:** Resident comment re: Proposed Hidden Falls Regional Park Expansion Project

Shirlee Herrington,

Our community recently gathered for a potluck to discuss the proposed Hidden Falls expansion on the "Twilight Ride" property at 5345 Bell Rd. I feel that this expansion threatens the lifestyle that we were looking for when we moved here.
I request a completely new Environmental Impact Report be completed for this project. I know that the current hidden falls area has caused a large disruption in that community and fear the same for mine. I do not want increased traffic, trash, use of the same water table that we use for our home wells and increased fire risk. There are some areas that flood during heavy rains and Bell road wasn't constructed to handle heavy traffic.
I moved to 4952 Bell Road almost 2 years ago (from Sacramento) to get away from traffic and crowding. I willingly gave up being close to amenities. This is what makes Auburn so great! My community is small and tight knit. That is what I love about it! I feel this is a safe place to raise my kids! I vote to keep Auburn rural!

-
Sarah Sullivan
4952 Bell Rd
Auburn, CA 95602
916-899-9721

--
Sarah Sullivan

## Shirlee Herrington

**From:** rick couvrette <capt2512@yahoo.com>
**Sent:** Friday, July 06, 2018 10:22 AM
**To:** Shirlee Herrington
**Subject:** Proposed Park entrance Bell Rd.

To Sheirlee Herrington.

This Is in responce to the proposed Park access from bell Rd in North Auburn. My wife and I live off Bell Rd at Hubbard Rd and we feel this aditional public access will degrade our life. We were both born and raised in the Auburn area and we understand that more people means more traffic more crime and so on. However we made a choice when we stayed in our home town and purchased property to live quietly out in the country. We raise cattle and have invested our lives towards living this type of life. With this proposed access point for Hidden falls Park this quietness will be replaced with a lot more trafic and the somtimes rude people that we don't tend to see out here. Our question for those who are concidering this progect is how does this help preserve the posability for a rural life style going into the future? It feels like Placer County has lost its way when it comes to preserving the very things that attract people to our area in the first place. Some of those things are the pastures and rural settings within the county. If this is not preserved, in the end we just become San Jose. We feel what Placer County is doing with this proposed park addition is making it even more difficult people like my wife and I to want to maintian a very nice rural area. Instead it makes us feel we are not wanted , so we should just leave. This is not scare tactics, this is the mood out here in the country. We are being run out by the majority. In whatever enviromental Impact report that is or was done, I am pretty sure the rural living enviroment is not being concidered. We would suggest to all of you people who are trying to change the nature of living in the country, remember what you saw before you make the changes because it will be only a memory. And that would be sad concidering what the real goal of the land preserve project is or should be, to preserve some of our rural area's before its lo late. We accept the fact the future will not be kind to our rural areas since the population in general just keeps going up. However we should not try to hurry this proccess along.

Please concider not expanding this park at this time. It is pre-mature and most importantly it is destructive to the rural life style, this should be part of what we want to save.

As an alternative to the proposed expanded public access as proposed we would recomend that the park service provide limited guided access to these preserved areas. This would also be much more educational. Education is the best way to preserve our rural areas.

Respectfully

Richard J Couvrette
Michele C Couvrette
4722 Bell Rd Auburn CA 95602

## Shirlee Herrington

**From:** wendy lumbert <tevisjunky@att.net>
**Sent:** Thursday, June 14, 2018 11:07 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls expansion

Hello Shirlee,

I'm writing to ask for your support or at the least to include these comments in the administrative report regarding the expansion of Hidden Falls trail network expansion.

We have the chance to create an amazing network of trails and to provide access and parking for people to enjoy them. This brings so much value to Placer County, as well as to each person who has the opportunity to enjoy the outdoors here.

The proposed parking on Bell road would be particularly appreciated by my family and for many of us here on the Divide, as it would be much more easily accessed than the current parking lots.

This conservation land was clearly meant to be used by the public. Guided
tours do not allow enough access. Please do whatever is possible to
expand the trails, the parking and the access to these beautiful lands.
Having more trails makes it so much easier to share as well, since there are many different activities and agendas for the trails.

thank you!
Wendy Lumbert
Longtime home owner in Cool, CA

## Shirlee Herrington

**From:** Laurie Sweeney <lauriemsweeney@yahoo.com>
**Sent:** Wednesday, June 13, 2018 9:29 PM
**To:** Shirlee Herrington; Jennifer Montgomery
**Subject:** Hidden Falls Expansion Comments

I would still like to see reservations in place even if the congestion is reduced by the expansion of the park. Equestrian parking is at a premium, and it is expensive to haul horses only to find that there is no place for you to park.

I would love to see some plans for horse camping. Placer County has NO horse camps. There a few in Nevada County and several in El Dorado, but none in Placer County. This location would be great as it is below the snow level and would be available to horsemen in the winter season. Horsemen would require no amenities for a camp as many rigs have bathrooms and can haul water. You can request horsemen to leave with their manure. Some shade trees and a flat area with turnarounds is all that is required. Niceties would include bathrooms, a water source for watering horses and corrals. There are several trails associations in the area that I know would be interested in adopting the camp and could fund raise for any equestrian amenities. A reservation system would be best.

Planning for parking - Please make sure that it takes into consideration turnarounds for rigs. Limit those rocks that damage rigs. Railroad ties as barriers are much friendlier. Consider circular pull outs similar to the Oroville Horsecamp. Rigs simply pull over to the right and left side semi-circles to park, and then continue around the circle to exit.

Loafer Creek Equestrian Campground - Lake Oroville

**Loafer Creek Equestrian Campground - Lake Oroville**

Loafer Creek Equestrian Campground at Lake Oroville. Complete camping information, including facilities, reserv...

I am thrilled with the expansion of the park.

Thank you,

Laurie Sweeney
916-955-0184

## Shirlee Herrington

**From:** Jerry Cowan <jerrycowan@hotmail.com>
**Sent:** Thursday, July 05, 2018 9:27 AM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls Parking Lot

To Whom it may concern:

My Husband and I have lived on the corner of, Bell Rd. and Joerger Rd. since 1968. We have seen many changes since then.

We are both opposed to the proposed parking lot on Cramer Rd. We have had countless cars go through our fence into our yard. The County put a stop sign here a couple of years ago, and if I had a penny for every time someone goes through it without stopping, we would be rich. There have been several accidents in the intersection too. One that I know of was fatal. Mind you these incidents involved local residents. I shudder to think of what will happen with a bunch of out of town people use this road as an access to the parking lot. The fire danger alone scares me no end. Please, Please do NOT let this go through.

Sincerely
Dorothy and Jerry Cowan
Phone
(530)885-0590

RECEIVED

JUL 09 2018

CDRA

**PETITION**
**PROTECT RURAL AUBURN (PRA)**

**The Placer County rural parking installation proposed for 5345 Bell Road as means to enhance parking and access to the Hidden Falls Regional Park and to some 2,500 additional acres held under the stewardship of the Placer Land Trust will denigrate our neighborhood. Traffic impacts, urbanization of agricultural lands, concerns about vandalism and thievery, and many additional impacts are the basis of our demand of the County to cease and desist with planning for trailhead access and parking at the address noted, a site referred to as the "Twilight Ride" property.**

**The undersigned desire that the County of Placer seek another solution to meet perceived parking needs for access to the acreages noted.**

| | |
|---|---|
| 1. Name: DOROTHY COWAN<br>Address: 4005 Bell RD, AUBURN, CA. 95602<br>Phone: 530 885-0590 | Email: JERRYCOWAN@HOTMAIL.COM |
| 2. Name: Jerry Cowan<br>Address: 4005 Bell Rd<br>Phone: 530 885-0590 | Email: SANCAS 4bsw |
| 3. Name: William K CANNON.<br>Address: 11365 Quartz Dr. Apt 53<br>Phone: 5307701371 | Email: |
| 4. Name: Virginia R CANNON<br>Address: 11365 Quartz Dr Apt 53<br>Phone: 530 770 1371 | Email: |
| | |

5.
Name: Faith Jackson
Address: 9970 Miracle Dr Auburn CA 95602
Phone: (530) 305-3666 Email: faithjackson16@gmail.com

6.
Name: Delance Ruud
Address: 10800 Cramer Rd, Auburn, CA 95602
Phone: (530) 885-3397 Email: DRuud@inreach.com

7.
Name:
Address:
Phone: Email:

8.
Name:
Address:
Phone: Email:

9.
Name:
Address:
Phone: Email:

10.
Name:
Address:
Phone: Email:

## Shirlee Herrington

**From:** Gail Maduri <mmurmur@att.net>
**Sent:** Saturday, June 16, 2018 6:33 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls Expansion--Yes

Dear Ms. Herrington,

It came to my attention that there is a substantial push back against expansion of this lovely park. I understand the feelings of those living near Hidden Falls. Since moving to Cool almost 20 years ago, I've felt the impact of more and more people choosing to move out of the greater Sacramento area and other cities to enjoy a quieter and more rural lifestyle. And if they cannot move, they come up to enjoy our incomparable outdoor activities, such as hiking, biking, horseback riding, and just enjoying time spent by the beautiful American River.

I wish it could be the way it was, but I doubt that it can. I feel that more and more people need access to places like Hidden Falls to bring peace, pleasure and perspective to their lives. I think we need to consider having more access to public land, not less.

Certainly care must be taken to ensure that nearby property owners' concerns are addressed fairly, but within the framework of opening more of our public lands to the public. Let's find a balance.

Thank you for taking comments and emails.

Gail Maduri,

3318 Hamblen Ct.
Cool, CA 95614

Chairperson, Sweep Riders of the Sierras, sweepriders.org

## Shirlee Herrington

**From:** et@crummyarabians.com
**Sent:** Friday, June 15, 2018 7:20 AM
**To:** Shirlee Herrington
**Subject:** Hidden Falls

I will be blunt.
It is COON CREEK not Raccoon Creek!
Just because YOU change the name to fit your personal taste, does not make it the proper name.
In the 1860's the town of Coon Creek had a US Post office.
Every map of the area I can find from the 1900's through today has it labeled COON CREEK.
Wikipedia labels it COON CREEK.
Google Earth labels it COON CREEK.
Placer County has the Auburn ravine/COON CREEK restoration plan.
Placer County is doing the COON CREEK Comprehensive Watershed Assessment.
Now correct your error.
I hope your project has no more setbacks.

Thank you,

Eric J. Thompson

## Shirlee Herrington

**From:** Helen Crawford <sugarpine1996@sbcglobal.net>
**Sent:** Monday, June 18, 2018 11:41 AM
**To:** Shirlee Herrington
**Subject:** Hidden Falls

I would love to see an expansion of Hidden Falls  I am an equestrian and love riding there.  Of course, parking is a problem  It is wonderful that so many of us want to be outdoors but Hidden Falls is  no longer a sleepy little trail. Obviously it is heavily used. I would use it more if the expansion was approved.

Helen Mcdermott
Nevada City, CA

## Shirlee Herrington

**From:** larry matz <lmatz1@yahoo.com>
**Sent:** Tuesday, June 19, 2018 5:01 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls expansion

I'm a long time Placer County resident and regularly visit Hidden Falls (HF), along with many other trail systems in our area and in other states. In many ways HF is among the best but currently lacks the size and access necessary to meet the needs of our ever growing population.
It's encouraging in this age of an increasingly sedentary and overweight population to see so many hikers, equestrians, and bikers of all ages regularly enjoying this beautiful park and the exercise and exposure to nature it provides. We're clearly fortunate to have this park and I commend the county for the foresight, willingness and ability to establish it.
However the rapid and continuing increase in popularity makes the proposed expansion critical. It's been apparent for a long time that many people are regularly denied access due primarily to limited parking. The proposed additional access and parking on Garden Bar Rd. and from Bell Rd are the next critically important improvements--along with expanding the trail system to accommodate increased usage.
I certainly understand the concerns of those who live adjacent to or nearby these additions and believe these concerns need to be considered and mitigated to the extend feasible. But the obvious benefit to a vastly larger group of county residents and visitors should be the overriding issue.
Through the development, maintenance and continual improvement of the existing HF facility the County has demonstrated an impressive ability to learn from initial problems and correct them. Moreover the current proposal recognizes those early problems as well as others that can reasonably be anticipated and discusses appropriate mitigation measures. It's therefore reasonable to believe the initial parking and access problems that occurred along Mears Rd won't be repeated along Garden Bar or Bell Rds. These are public, county maintained roads that will likely see increased traffic but that impact and it's mitigation is also addressed within the scope of this proposal.
The proposal is comprehensive and well thought out. It describes a critically important improvement of this beautiful and extensively utilized park commensurate with the ever growing recreational interests of our county residents. I strongly support approval of the NOP and early construction of the access and trails it encompasses.
Larry Matz

## Shirlee Herrington

**From:** walkingsmooth <walkingsmooth@yahoo.com>
**Sent:** Friday, July 06, 2018 2:45 PM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls

Please go through with the expansion of the Hidden Falls park. We need more parking for everyone that goes there. Designated parking for trailers is so needed.
Than you

Sent from my Sprint Samsung Galaxy S8.

## Shirlee Herrington

**From:** Laurene and Dave Davis <laureneanddave@gmail.com>
**Sent:** Friday, June 29, 2018 6:09 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls expansion support letter

I am writing in support of the park and parking lot expansion for Hidden Falls Regional Park.

- It would be great to be able to access the far end of the park without having to ride (horseback) all the way to the new area from Mears Place. Accessing the new area would involve a much longer time commitment that is not always available. Being able to access the additional trails from a new trail head would make it possible to explore the new trails without committing a full day's ride.

- Currently trails are shared by many groups; bicyclists, casual walkers, hikers, horseback riders and families. It is working well with all of the groups sharing the trails and additional access to the park would make the park available to more people.

- Trails without blind curves and wide enough to share are vital to the safety of all users.

- Having multiple access points and trail heads would also spread out the patrons using the trails, making it safer for everyone.

- I would also love access to the park from the Garden Bar area. For the same reasons. Being able to explore the farther reaches of the park without full day's commitment would be great. When we leave from the Mears parking lot, it is a very long ride to get to the area past the 2nd bridge. It would be great to explore this area more.

Thank you for your attention

Sincerely

Laurene Davis / equestrian

4801 Virginiatown Road

Newcastle, CA 95658

## Shirlee Herrington

**From:** Bonnie McAdams <bmcadams11@gmail.com>
**Sent:** Thursday, July 05, 2018 5:21 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls Project

July 1, 2018

Placer County Board of Supervisors
175 Fulweiler Avenue
Auburn, CA 95603

Re: Twilight Ride Property/Hidden Falls Regional Park

Dear Supervisors,

We are writing to express our strong opposition to the proposed purchase of the Twilight Ride property at 5345 Bell Road with the intention to create a new access point to Hidden Falls Regional Park.

As has been stated by many of our neighbors, the rural roads that lead to this proposed access point were not intended to be used as major throughways. Your action to do so not only puts many of us at risk of injury to ourselves and our family members, but will lead to a decrease in the value of our property.

There are many things that you, as our elected representatives, must protect, but the most precious are the residents of Placer County. The plain truth is that we are the ones as taxpayers that are already paying for your many decisions and will be paying for this also. So far, the residents who are suffering today because of your irresponsibility with the Hidden Falls Project in existence should give you pause and reason to question the sanity in moving forward.

We urge you to table this project in its current state and to listen to our united voices.

Preserve Rural Placer
Bonnie McAdams
Tim McAdams
4260 Bell Road

bmcadams11@gmail.com

June 14, 2018

RECEIVED
JUN 21 2018
CDRA

PLACER COUNTY BOARD OF SUPERVISORS

Subject: Placer County Purchase of 50 Acre Twilight Ride Property

located at 5345 Bell Road for more access to Hidden Falls Park

My name is Mike Watson and I have been a resident of Auburn since 1989 and I strongly oppose this project. It appears that it was rushed through without much thought or consideration of how it impacts our community. The EIR is was done almost 10 years ago (2009) and needs to be done again to reflect the current environment and changes in traffic. The infrastructure does not support this project and our country roads that will be affected by this project are already in poor condition and can barely handle the traffic now. Not to mention it all flows out to Hwy. 49 which is also becoming inadequate for the current traffic. No consideration was given to the residents which will now have a view of the parking lot rather than the view they paid for. Imagine how this project will impact property values in the future.

Every one of you has a job because this community voted for you and you are suppose to be working for us. My vote in the next election will depend on the outcome of how this project evolves now that you know our concerns. We all see what has happened on Mears and Mt. Vernon Roads with the drugs, litter, property damage, illegal parking and theft. Auburn as you know has a serious homeless problem and this will just expand their real estate opportunites.

Please consider an alternate plan for this project that does not negatively intrude on so many in the Auburn community.

Michael B. Watson

Michael B. Watson

Parcel 075-050-056-000 (5555 Fawnridge Road)

530-392-0151

cc: Shirlee Herrington, Environmental Coordination Services

Protect Rural Auburn Group

June 13, 2018

RECEIVED
JUN 18 2018
CDRA

Diane Dolley
9300 Cramer Road
Auburn, CA 95602
Assessor's Parcel # 026-110-027-000

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

RE: Twilight Ride Property AND New Environmental Impact Report

Dear Madam:

This letter is in response to Placer County proposing a parking lot including horse stable, bike rental, picnic area and whatever else at 5345 Bell Road. This will have a terrible impact on Bell, Cramer, & Lone Star Roads. We have already seen what has happened on Mears Rd. The roads of Bell, Cramer, & Lone Star are heavily traveled daily and barely handle current traffic. These roads are narrow, have blind curves and other hazards.

**I ABSOLUTELY OPPOSE THIS PLANNED PURCHASE OF LAND AND PROPOSED PARKING LOT at 5345 Bell Road, Auburn.**
**THE BURDEN TO THE AREA IS MUCH GREATER THAN THE BENEFIT.**

Additionally, the county must prepare a NEW ENVIRONMENTAL REPORT as the current one is inadequate and nearly 10 years old. The county is proposing to more than double the original area of the first EIR. The information is clearly incomplete and dated.

**The county should not continue on this path and I demand that they stop immediately and not go forward on any Hidden Fallen Regional Park Trail Expansion Project.**

Sincerely,

Diane Dolley

Diane Dolley

## Shirlee Herrington

**From:** Abbas Mehdi <abbas.ubc@gmail.com>
**Sent:** Thursday, June 14, 2018 10:47 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls Expansion

Hi,

I am a Placer County residents and in favor of expanding the trails and parking. I have many friends in the county who feels the same way. How can I make our case?

Would a petition with names and signatures suffice? Or does each signee need to comment and make a case?

Please let me know.

Thanks!

Abbas Mehdi.
8200 Christian Ln.
Granite Bay, CA 95746
323-572-6751
--
Abbas

**Shirlee Herrington**

**From:** caron@foothill.net
**Sent:** Friday, July 06, 2018 2:02 PM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls Proposal Lone Star Rd. access

Hello: July 6, 2018 1:57 pm

This email is in response to use Lone Star Rd and Bell Rd as access to the Hidden Falls Park .

I live at 5785 Lone Star VALLEY RD.(LSV rd.) which is a private ,residents maintained road with 9 houses.

This SINGLE LANE road is NOT improved or maintained by Placer County as it is situated in UNINCORPORATED Placer County.

Lone Star VALLEY (LSV.rd) road starts immediately off of Lone Star road and gives the illusion that it is a continuation of Lone Star Road. Many people mistakenly proceed down LSV road.They MISS the BLIND CURVE that actually is Lone Star rd. and continue down LSV RD.When they realize their mistake they approach the residences to ask where they are ,ringing doorbells at 7:am, trying to turn around in private driveways or sometimes driving across lawns.Directional signs are NOT heeded.The approach to the BLIND CURVE is a VERY,VERY steep hill which would be difficult for truck driven horse trailers to navigate.

The BLIND CURVE is extremely dangerous and there have been several near misses by traffic coming the other way, around the curve WHICH IS ALSO BLIND TO THEM.speed signs are totally IGNORED.

There is only ONE way out of LSV rd.,it has to be used as the FIRE RD. NON residents have parked at the head of the road

thus blocking the residents FIRE exit and FIRE TRUCK entrance.

Lone Star Road has several FLOOD Zones even though the entire road is deeply trenched on both sides to prevent more floods.

in order to widen the road which currently can not allow 2 horse trailers to pass. DOZENS OF OLD OAKS would have to be

removed because there is no other room before them except to fill in the flood trenches and thus making the entire road

impassable and cause even more flooding and property erosion.

You are no doubt aware that there have been several traffic FATALITIES at the corner of Lone Star RD.and Rte 49 which

is a BLIND CURVE for traffic coming from Lake of the Pines and Grass Valley.There are speed signs but people don't heed

them.

Lone Star Rd. is remote and there is very little, if any(in areas) cell phone reception and GPS is inaccurate.

May I suggest that you all hitch a loaded horse trailer to a truck and come out here take a drive on Lone Star rd. and see for yourselves,what I am saying.

At the last open meeting all the people conducting the meeting were asked how many of them(you) live in the country.

NONE of them(you) do. !!!! Perhaps you need to see the areas that you represent and you would get a clearer picture.

Please don't destroy our peaceful and beautiful environment.

Thank you,

Carolyn Weaver
caron@foothill.net

This email has been checked for viruses by Avast antivirus software.
www.avast.com

**DOWNEY**BRAND

Kathryn L. Oehlschlager
koehlschlager@downeybrand.com
415.848.4820 Direct
415.848.4821 Fax

Downey Brand LLP
455 Market Street, Suite 1500
San Francisco, CA 94105
415.848.4800 Main
downeybrand.com

July 5, 2018

**VIA E-MAIL AND FEDERAL EXPRESS**

**SHERRING@PLACER.CA.GOV**

Shirlee Herrington
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Comments on Revised Notice of Preparation: Hidden Falls Expansion Project

Dear Ms. Herrington:

We appreciate the opportunity to comment on the Revised Notice of Preparation (NOP) of a Subsequent Environmental Impact Report (SEIR) for the Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project (the "Proposed Project"). These comments are being provided on behalf of my client, Harvego Real Estate LLC (HRE). By this letter, we reiterate our request for notification of any new documents or other significant developments with regard to the Proposed Project.

Attached are comments we submitted on the original NOP for the Proposed Project on February 27, 2017. We understand that those comments will be included in the administrative record of proceedings for the Proposed Project. We remain concerned about the issues raised in our previous letter, which are equally applicable to the Proposed Project as reflected in the Revised NOP.

Most significantly, it is critical that the SEIR adequately analyze and disclose the environmental impacts that will result from the construction of an access roadway through my client's property, which includes most of what is referred to as "Curtola Ranch Road." As you are aware, based on the Grant of Easement dated June 14, 2011 between my client, Peter M. Caswell and Jacqueline F. Caswell, the Placer Land Trust, and the County of Placer, prior to public access being allowed through my client's property, the County is required to improve the road "to a minimum standard, consisting of a road with an all-weather roadway surface of not less than twenty feet (20) in width, which satisfies the County that it is suitable for use by the public in general. . ."

Construction of this roadway will likely result in significant environmental impacts, including those associated with heavy grading, oak tree removal, enlarging an existing earth dam, construction of a bridge, and diversion of storm and irrigation waters. This construction has the potential to impact protected species, native trees, and riparian resources, and thus may trigger additional environmental permits. The SEIR must analyze, disclose, and mitigate for the impacts of constructing these improvements, and those impacts should be considered in the SEIR's evaluation of project alternatives.

As stated in our previous letter, we are surprised that the County has not elected to meet with my client prior to moving forward with the Proposed Project. There has been no meaningful communication from the County regarding the Proposed Project since we submitted our original comments. We remain hopeful that the County will establish a substantive dialogue with my client and other stakeholders in order to ensure that all parties' rights and interests are taken into consideration before the Proposed Project moves forward.

We look forward to the opportunity to provide input regarding the potential impacts of the Proposed Project prior to public circulation of the SEIR. Please feel free to contact at me at your convenience to discuss this further.

Very truly yours,

DOWNEY BRAND LLP

Kathryn L. Oehlschlager
Enclosure

**DOWNEY**BRAND

Kathryn L. Oehlschlager
koehlschlager@downeybrand.com
415.848.4820 Direct
415.848.4821 Fax

Downey Brand LLP
455 Market Street, Suite 1500
San Francisco, CA 94105
415.848.4800 Main
downeybrand.com

February 27, 2017

**VIA E-MAIL AND MAIL**

Shirlee Herrington
Environmental Coordination Services
Placer County Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

Re: Comments on Notice of Preparation: Hidden Falls Expansion Project

Dear Ms. Herrington:

We appreciate the opportunity to comment on the Notice of Preparation (NOP) of a Draft Subsequent Environmental Impact Report (DEIR) for the Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project (the "Proposed Project"). These comments are being provided on behalf of my client, Harvego Real Estate LLC (HRE).

As the County is aware, HRE owns a substantial amount of property adjacent to the Proposed Project, as well as several properties upon which improvements are proposed as part of the Proposed Project. HRE previously owned what is now the 1700-plus-acre "Harvego Bear River Preserve" (HBRP), which generally has the Bear River as the north boundary. Presently, there is no public access to the HBRP, and the Proposed Project contemplates allowing public access via several roads that will require substantial improvements, some of which cross HRE's property. HRE currently owns over 800 acres generally to the south of HBRP, including most of Curtola Ranch Road, which we understand would be the access to the onsite parking area on the HBRP, as identified in the section on Parking and Access and on Figure 3 of the NOP.

We have been surprised that the County has not elected to meet with our clients and discuss the matter prior to moving forward with consideration of the Proposed Project. It is the hope of my clients that there can be meetings and other communication with the County and project participants on the front end of the project to make sure the County's process meets legal requirements related to their property prior to the issuance of the DEIR, in an effort to save significant time and money down the road.

We have a few questions and comments, based on the limited information found in the NOP. Those include:

- The NOP shows trail easements, existing trails and proposed new trails as part of the Proposed Project. It is critical that the DEIR address the environmental and other impacts, including impacts on adjoining property, associated with developing the trails.

- How can the parking lot being contemplated on HBRP be associated with the Hidden Falls Regional Park when it is over 4 miles away?

- It is unclear why the County is preparing a subsequent EIR, instead of a new EIR, given that the location of the Proposed Project is geographically remote from the existing Hidden Falls Regional Park. A subsequent EIR is appropriate where an agency proposes changes to a project for which an EIR has already been prepared. *Friends of College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 Cal.5th 937, 943. The Proposed Project is a separate, stand-alone project, and will have environmental impacts that are entirely different from the prior Hidden Falls project.

- The NOP contemplates access to the new parking lot on HBRP over Curtola Ranch Road without explicitly so stating. Is the County aware of the current condition of the extension of the road over our client's property and the requirements of the County to use the Easement over our client's property for public use?

- Improving Curtola Ranch Road for public use will require major improvements and significant heavy construction, and all impacts of those improvements must be addressed in the DEIR. For example, will the DEIR address the issues of crossing an earthen dam on a dirt road that is currently less than 20 feet wide? Similarly, will the DEIR address the significant loss of oak trees and substantial cost to build the extension of Curtola Ranch Road?

- Will the DEIR address the significant storm water flow issues that the Proposed Project would impact, and the fact that a bridge of some type would be required over existing water canals to get to the proposed parking area?

- Will the DEIR address the fact that there are very limited, if any, utilities in the area of the proposed parking lot?

We note that the County does not address Curtola Ranch Road and related areas owned by HRE under Roadway Improvements or Construction, Operation, and Maintenance sections of the NOP. The questions above represent only a few of the potential environmental issues related to the easement across the HRE property. My client is concerned that the NOP as written does not adequately disclose the difficulty, cost, and environmental impacts of improving Curtola Ranch Road to the agreed upon standards, which would be required for public use.

We look forward to having an opportunity to provide input regarding the potential impacts of the Proposed Project prior to public circulation of the DEIR. Please feel free to contact at me at your convenience to discuss this further.

Very truly yours,

DOWNEY BRAND LLP

Kathryn L. Oehlschlager

## Shirlee Herrington

**From:** Teresa Muscarella <trmdesigns@yahoo.com>
**Sent:** Friday, July 06, 2018 1:33 PM
**To:** Placer County Environmental Coordination Services
**Cc:** Michele Calbi; Mike Lutzker; Mike Muscarella; Judy Isaman
**Subject:** twilight ride access

Comments on Hidden Falls Regional Park Trails Network, Expansion Network -Twilight Ride Access.
Thank you for allowing to comment on this issue.

First of all the initial Hidden Falls parking area on Mears Place is a big failure and pushing the problem to our neighborhood is simply wrong. I think we should take a look at the people who are actual using Hidden Falls park and go from there. We can easily find the address' of these people by looking at the sign up website. If the bulk of the people are coming from the southern portion of our county or even Sacto county as I suspect then it would be prudent to have another access point closer to the demographics using the park. The nice man at our last meeting has offered up his ranch Lincoln for this very purpose. The land is close to 2 freeways and will not disrupt an established rural neighborhood. This seems a logical solution that should be explored. And if it is determined that many of these people come from our community than lets purchase a parcel of land on hwy 49 or a more populated area to connect to the park. You have waited this long what is the rush??

Looking again at Hidden Falls and Mears Place. The neighbors here have testified that the park has lowered the value of their property, created unprecedented traffic, unsightly litter, noise pollution, vandalism and theft. Why on earth would you want to replicate this scenario in another neighborhood? They also maintain that the park itself does not make good neighbors; trails too close to their property lines, poor barb wired fencing, and no access through properties adjacent to the park. It seems if these people are being burdened with this park and all the negative stigma that comes with it they should at the very least be given concessions for their burdens.

Now lets look at the Bell, Lonestar and Cramer Road areas. You claim that these roads are "semi" rural. I see them as rural. In fact many of these properties are Williamson act properties. Properties where the owners have taken great care to preserve their large pieces of land for ag use way into the future. These are forward thinking folks whose families have been here for generations and their very life depends on their land, their livestock and/or crops. They are great stewards of our land and cannot up and leave because the city is moving in. They will pay the heaviest price.

Our narrow roads are traveled by tractors, atv's and slow driving pickups. The mailboxes are in banks at the street corners and people actually walk to them. The additional traffic will be very dangerous especially by drivers who are not familiar with our winding, narrow roads. Cramer road is very narrow....and we like it that way. Will you be widening it and if so which side and will you be replacing our fences? To add insult to injury, I have read that we will be getting a new prioritized bike lane on Bell Road. How do you think this is going to work? Why would you do this? Horse tailors, city drivers, tractors, now cyclists all sharing the same road. This sounds like disaster to me. Are you planning to widen Bell Road?

Regarding the special use permits that you stated in our last meeting for people whose property is adjacent to the Twilight Ride park wherein these people may board horses and have access through their properties to the park seems great in theory. Have you considered the extra insurance burden these people will have to pay. As stated before many of these properties are Williamson Act and within that contract horse boarding is not permitted. So as this seems like a great concession it in theory is a mute point.

Now lets talk about the parking. The parking lot is planed to service 50 cars and 20 or so rigs. If it is scheduled like Hidden Falls then there are 2 permits per space daily; one in the morning and one in the afternoon. That is potentially 100 additional cars and 40 rigs daily on our little roads. Think of the impact! The noise, the pollution, the congestion and most importantly the accidents. This doesn't even include the cars that just drive by to check out if there are available spaces and park illegally on the street. The signs that will need to be posted. Signs showing where the park is and many more signs telling people where NOT to park. I have been told by many city planners that signage is blight. And so we live with blight.

The park proposal has many vague statements. What are the additional concessions? Why showers? Will the water be from a well and will that impact our neighbors wells? Will there be camping? Noise control, homeless control, garbage control? Bike rentals? How will it all be policed? How will our roads be maintained with all the extra traffic? I am concerned with many things about this park but most importantly concern is FIRE. Will the county take responsibility if a fire occurs in the park?

I am not naive. I know that this is almost a done deal. It is truly shameful that you intend to destroy our peaceful neighborhood to feed your coffers and your ego's. Once again North Auburn is a cash cow for Placer County.

If the park must happen (and I believe it should NOT) then consider this:
We should have equal burden with Mears Road. No more or less vehicles, rigs.
No fires at all
No overnight camping
No showers
No concessions at all

Let's keep it a quiet, nature park without all the hoopla.

I'm wondering how much my taxes will go up because of this park. It's ironic...we will be paying additional taxes to destroy our neighborhood.

The passage below was written by a concerned citizen and speaks true to me:

The purchase of this property itself should be scrutinized, when it comes to spending our hard earned tax dollars, is open space really a priority? When headlines show our Community College district is desperate for funds, our Fire districts are hemorrhaging, the unfunded long term liabilities are real, infrastructure needs continue to grow.... Is it really the role and priority to purchase, build, staff & maintain huge open space parks? One thing if Placer Legacy wants to solicit funds and purchase open space, quite another when thousands and thousands of staff hours are spent on meetings, planning, design..... purchasing at top dollar residential / ag lands, not to mention the impact of loss of funds to other areas - such as above, or more localized recreation facilities. Reality is, in our community / county there are vast open space resources, hundreds and hundreds of miles of hiking, biking & equestrian trails - when it comes to true "needs" it would be hard to prioritize spending on open space. We are surrounded by Tahoe National Forest, Auburn State Recreation area, Folsom Lake, Bureau of reclamation land..... - Again it is all nice, we can all appreciate open space - but we also have to be fiscally responsible, with long term visions (each expansion of Hidden Falls creates new long term liabilities...) - Public Safety, Infrastructure, water needs. Health & Human Services, unfunded debt.... Now of course putting in huge parking lots & increasing traffic on old rural roads is another issue, I also think that the speed of purchase and the obvious plans for this property are subject to questioning.....

It is what it is, I know how this works - a few meetings to pretend public input is wanted, and then soon ground will be breaking for the parking lot, the sky will not fall, but it is just one more sign at how out of whack we are getting, and how the allocation and management of our limited tax dollars is not really in line with what a local government should be focusing on. Just my opinion

One more last thought. I believe that it should be public knowledge when and where all property is purchased from the county BEFORE it is purchased. Also is there a map of all the land owned in the trust as I think I will have to move and I don't want to move near land you own.

Sincerely,
Teresa Muscarella
11400 Cramer Road
Auburn CA.

# Imperial Mortgage
## & Real Estate Services
4455 Gambah Dr. Auburn Ca 95602


To: Place county Board of Supervisors
Re: Hidden Falls new access off Bell Rd


Keith Wenger
4455 Gambah Dr,
Auburn, Ca. 95602
APNs 026-360-27, 026-360-15


I am a local business owner of Imperial Mortgage & Real Estate Services and have lived here for 23 years. My wife Margie and I chose this area to raise our 6 children in a rural setting in the country. I am deeply disturbed about making this Hidden Falls new access off Bell Rd. I have the following concerns:

Bell Rd. is narrow most of the way and barely has enough room for bicycles and cars as it is. I live on the dangerous corner of Bell Rd. And Gambah Dr. and have had my mail boxes destroyed and property damages caused by drivers that don't know how sharp the turn is and this is going to be worse with 100 more cars and 40 horse trailers coming around that turn every day! This turn is plainly marked and the mail boxes have still been knocked down 4 times, causing damages to my fence and property. This is going to make it worse!

The Mears Rd. entrance has been a disaster for the people who live on that road and this will be worse! There is currently property damage, trespassing, garbage dispersed on the roads, etc. I am also very concerned about fires being started by park users who don't understand how easily a fire can spread in this area. If a fire damages property in this area our insurance rates, which are sky high, will go up even higher! I pay 6,000 a year for fire insurance now.....

What is the HURRY!! We Need a new EIR to be ordered and need to slow this whole project down or stop it completely. The park already has one entrance and that should be sufficient. This will turn Bell Rd. that is already too busy, into a freeway! I did not move here to have traffic, fire potential, littering, property rights violations and damages. I am firmly against this new access, and I am watching VERY closely to see who is for or against this access! I will vote accordingly in the next election of Placer County Supervisors.

Sincerely,


Phone: (800) 961-CASH or (530) 885-4444 Fax (530) 885-4476
Email: keithwenger@yahoo.com

**PETITION**
**PROTECT RURAL AUBURN (PRA)**

**The Placer County rural parking installation proposed for 5345 Bell Road as means to enhance parking and access to the Hidden Falls Regional Park and to some 2,500 additional acres held under the stewardship of the Placer Land Trust will denigrate our neighborhood. Traffic impacts, urbanization of agricultural lands, concerns about vandalism and thievery, and many additional impacts are the basis of our demand of the County to cease and desist with planning for trailhead access and parking at the address noted, a site referred to as the "Twilight Ride" property.**

**The undersigned desire that the County of Placer seek another solution to meet perceived parking needs for access to the acreages noted.**

| | |
|---|---|
| 1. Name: Keith B. Wenger | Address: 4455 Gamlah Dr Auburn, CA 95602 |
| Phone: 916-801 4445 | Email: keth@keithwenger.com |
| 2. Name: Margie Wenger | Address: 4455 Gamlah Dr Auburn, CA 95602 |
| Phone: 530-368-0145 | Email: Margie wenger@yahoo.com |
| 3. Name: Bethany Wenger | Address: 4455 Gamlah Dr Auburn, CA 95602 |
| Phone: 530-368-0145 | Email: Curlybwang@yahoo.com |
| 4. Name: Elise Wenger | Address: 4455 Gamlah Dr Auburn, CA 95602 |
| Phone: 530-305-2826 | Email: ewenger09@gmail.com |
| | |

## Shirlee Herrington

**From:** Tricia Frazier <pmoonblu@gmail.com>
**Sent:** Monday, June 18, 2018 10:03 AM
**To:** Shirlee Herrington
**Subject:** Hidden Falls

I just wanted to show my support in the expansion project. I ride there often with many of my friends. We all love how nice it is there and would really like having more area to ride on.
Thank you
Tricia Frazier

**Shirlee Herrington**

---

**From:** Ron Paitich <rpaitich@gmail.com>
**Sent:** Friday, June 15, 2018 11:37 AM
**To:** Shirlee Herrington
**Cc:** Lisa Carnahan
**Subject:** Hidden Falls NOP comments

Re: https://www.placer.ca.gov/news/2018/june/hidden-falls-nop

Dear Shirlee,

My wife and I attended the Hidden Falls NOP meeting at DeWitt last night.

From what we conclude, one reason for the expansion of Hidden Falls RP is to deal with the increase visitor load. I offer these comments:

The tenor of the NOP meeting was decidedly negative, with concerns expressed about increased traffic due to the 100 added parking spaces at the Twilight Ride property on Bell Rd. We're not traffic experts, but 100 cars over the period of a day is a trivial increase, an average of a dozen cars per hour.

One participant, a resident of Lincoln, said he had property that bordered (or was very close to) the west end of Hidden Falls. He said his property was available for purchase, to add to Hidden Falls. Based on this limited information, his proposal seems an ideal solution. It avoids the rural narrow Bell Rd access in the current proposal, while adding expansion to the existing park. The owner indicated that there are several roads to access his property.

We support expanding the park, as we will be able to make use of the trails closer to home. We contend that access to a park that size needs come from several locations and possibly be limited to Placer County residents. Since population density is larger on the west side of the park, easy access from the west should be included.

Here's a popular regional park that limited access to local residents:
We moved to Auburn 37 years ago from Los Altos. At that time, 1970s, there was an excellent park near us, Palo Alto Foothills Park. Access to the park was limited to residents of Palo Alto; to enter the park, it was necessary to present identification, e.g., driver license, that showed your address. Limiting access to local residents makes sense, as the park is funded and maintained by Placer County. In addition, it completely solves the concerns, real or imagined, of traffic increase. Cost of the proposed expansion would be avoided as well.
Here's more on the Palo Alto solution:

https://www.cityofpaloalto.org/gov/depts/csd/parks/preserves/foothills/default.asp

## Residency Requirement

Foothills Park is open to Palo Alto residents and their accompanied guests only. Proof of residency is required. Guests must be accompanied by a Palo Alto resident. Limit of 15 guests per resident in two additional cars. Please call the Foothills Park rangers for clarification or for additional questions at 650-329-2423.

Sincerely,

Ron and Barbara PAITICH
5841 Bell Rd.
Auburn CA 95602
Telephone: +1 (530) 269 2966

## Shirlee Herrington

**From:** Keith & Stephanie <kcsw4br@sebastiancorp.net>
**Sent:** Friday, June 08, 2018 10:22 AM
**To:** Shirlee Herrington
**Cc:** Sheila Toner; Timothy and Sue Crum; Bruce Littlefield
**Subject:** Hiddeen Falls Regional Park

We are encouraged you are seeking ways to fix the terrible parking problem at Hidden Falls. We would like you to also think about how providing additional parking lots will affect local homeowners in terms of increased traffic and increased maintenance costs on non-County maintained roads. We don't live near Hidden Falls but find it very problematic that the County did not consider the additional burden on local homeowners the traffic would present in terms of road maintenance.
In Foresthill, access to a major staging area for ASRA, for which the County chooses to take no responsibility for road maintenance, has been a very difficult issue for the entire community.
Also, we hope some of the new parking areas will not be adjacent to a steep slope for a trail head, both in terms of erosion and cutting across the trail and in terms of people whose physical limitations prevent them from getting into the park as a result of the steep starting/ending section of trail.
Sincerely,
Stephanie Williams and Keith Collins
Foresthill

## Shirlee Herrington

**From:** Louise Fry <blfry@live.com>
**Sent:** Thursday, June 14, 2018 9:38 AM
**To:** Placer County Environmental Coordination Services; Bob, Louise Fry; jimholms@placer.ca; jennifermontgomery@placer.ca
**Subject:** HIDDEN FALLS PROPOSED PARKING LOT

Attention Sharlee Herrington, Jennifer Montgery, Jim Holms and other board and county representatives:

You have already ruined one beautiful quiet neighbor hood and destroyed there Home values, why are you trying to do it to another, two wrongs don't make it right. You already have property, go deeper into it to make more parking.
We have lived here 40years and have seen much change but this is absolutely ridiculous and mind boggling. HOW WOULD YOU LIKE IT IF THEY WERE TO BUILD A 6 OR 8 LANE FREEWAY RIGHT NEXT TO YOU QUIET BEAUTIFUL HOME. All the noise, dust, theft, and destruction of property.
There are section of Bell Road that are not wide enough for 2 trucks and horse trailers to pass one another, Cramer is MUCH worse.
You need to do a New EIR. And Just wait till its time to re-electic you.
FIND ANOTHER WAY TO FIX YOUR SCREW UP.

NO PARKING LOT IN MY BACK YARD you rectal orifices.

Robert and Louise Fry
5401 Bell Rd.
parcel No 026-110-031-000

To ELECTED OFFICIALS of PLACER COUNTY; you are elected by the people of THIS county and are sopose to do what WE THE PEOPLE WANT. Are you listenting? Or are you deaf to our crys. Were you born or raised in this Beautiful area? Or did you move here from the City, If so why did you move here, for the Beauty and Calm of the Area? Then why are you tring to ruin it.

The PROPERTY AT 5345 Bell Rd. that you are trying to purchase with generous gifts and tax dollars, is not worth what you are willing to pay for it and it is right in the middle of quiet Homes & Animals grazing. It has been a GREAT AREA to raise our Children and grow old. NOW you come along and want to put a PARKING LOT & CONSESSIONS, right in the middle and bring in City Dwellers and Homeless, with there drugs, trash and noise polutions. RAISING GREAT ISSUES with FIRE DANDER. It's hard now to get fire insurance, who knows if we will even be able to get it then.

With the size of this PARKING LOT and the concessions, it will end up being the Main Entrance in to Hidden Falls Recreation Area.. Our Roads will not handle the type of traffic you want to inflect on them. Where will you get the money to widen and improve them...MORE TAXES. With bathroom you will have to drill wells, which will lowere out water tables.

You will have to take peoples property for turnouts and lefthand turn lane, and streighten out cures. How about School Buses with Childred in them morning & Afternoon. Also when there is an accident on Hwy 49, they devert traffic down LoneStar and Cramer on to Bell, How is that going to work with Trucks & Horse Trailers. LoneStar and Cramer both have a hard time with two way traffic. Bell use to be that way, but you widened it and put a line down it 20 years back, but city people still have a hard time driving it and staying on there side.

You already have the Park and you have disrupted the lives of many people on Mt. Vernon and Mears, WHY DON'T YOU JUST TAKE THE ROAD FARTHER IN TO THE PARK AND MAKE YOUR PARKING LOT & CONCESSIONS. Then you can make the roads as wide as you wish and the parking a big as you want. There was a Man at the meetting on June 14th from Lincoln that had property adjcent to the Park that wanted to sell it to you and you turned him down. WHY? Were his Neighbors against it too. We all have friends on Mears that are still complaining about the distruction, traffic and the Park its self. There property Values have dropped and they can't even sell ther houses. You may have had a great idea but it was started to late and now the property is to populated.

Please put yourselfs in our shoes, drive out Bell, from Joger all the way to the Auburn Valley Country Club, you will see signs NO HIDDEN FALLS ACCESS, WE DO NOT WANT IT IN OUR BACK YARDS, DON'T RUIN OUR COUNTRY HOMES AND BEAUTIFUL VIEWS.

Bob & Louise Fry, 5401 Bell Rd., Auburn

RECEIVED
JUN 22 2018
CDRA

Fr: Steve & Alice Perry
Re: Bell Road Parking Lot
Dt: June 14, 18

To: Shirlee Herrington Environmental Coordination Services

Hello Shirlee. My wife and I are transplants from the Vacaville area for about five years now. Our retirement is going well, as we enjoy and continue to adjust to country living. Stating things simply, we are alarmed at the potential parking lot on the corner of Bell and Cramer. We know how awful its been for many who live around the current Hidden Falls facility right now. This new parking lot will not fix that, but only exasperate it. There are already enough places in the greater bay area to ride, bike and hike, without turning our neighborhood and roads into a more unsafe situation. This is not a good plan, except in the minds of those who are not physically effected. We are in opposition. Thank you.

Steve & Alice Perry
4712 Howe Lane
Auburn Ca 95602
Assessment / Parcel Number 076-030-048-000

## Shirlee Herrington

**From:** Willis <bjwillis@sbcglobal.net>
**Sent:** Monday, June 18, 2018 6:06 PM
**To:** Shirlee Herrington
**Subject:** hidden falls

Expansion of Hidden Falls is a much needed opportunity for our community to enjoy this parkland. It is such a popular place that reservations are needed to enjoy it. This alone should tell the decision making people that we need more recreation opportunity. I would like to see parking expansion for equestrians, as we use this park frequently, and is very desirable park for trail riders. Please consider the expansion of horse trailer parking.
Janet Willis
25076 China Hollow Rd,
Auburn, CA

# Hidden Falls Regional Park
# Subsequent Environmental Impact Report
# Scoping Meeting Comment Card

Please write clearly and note that all comments received become a part of the public record. If you'd like to provide your name or contact information, please do so:

Name: WALLY GAFFNEY Organization/Address: PRA / PERSONAL; 4961 Bell Rd, Auburn CA 95602

Email: WGAFFNEY37@gmail.com Date 7/5/18

W. Charles Gaffney 916-275-1653

[✓] Please add me to the mailing list for this project.

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Preliminary review by Placer County staff indicates the proposed Hidden Falls Regional Park Expansion Project Subsequent Environmental Impact Report (SEIR) will evaluate impacts to the following environmental topics:

- **Aesthetics**
- **Agriculture**
- **Air Quality**
- **Biological Resources**
- **Cultural Resources**
- **Energy**
- **Geology, Soils, Paleontology**
- **Greenhouse Gas Emissions**
- **Hazards and Hazardous Materials**
- **Hydrology and Water Quality**
- **Land Use and Planning**
- **Noise**
- **Population, Employment, Housing**
- **Public Services and Recreation**
- **Transportation/Traffic**
- **Utilities and Service Systems**

Not environmentally sage!

**Q:** Have we missed any important topics? If so, which ones and why? Should any topics be dismissed from further consideration? If so, which ones and why?

MISSED → drainage: Asphalt &/or concrete parking lot surface of 40+ acres will drain (haz. fluids/petro/oil) to (E) adjacent ponds & creeks

**Q:** Should any topics be broken out separately or combined? Why?

drainage of surface pollutants from vehicles → parking surface the natural ponds & creeks.

**Q:** Due to what you know about the location, scale, and character of this proposed park expansion, should the EIR place particular focus on certain topics? If so, which ones?

DRAINAGE / ROAD SAFETY / INCREASED FIRE DANGER CAUSED BY NON-RESIDENTS / NEGATIVE IMPACT ON (E) EXISTING AGRICULTURAL, LIVESTOCK, NATURAL GRAZING LANDS.

**Q:** Are there existing conditions on the site or in the vicinity of the project site we should consider in the EIR analysis? If so, please describe them.

DRAINAGE

INCREASED TRAFFIC – VIOLATIONS – ACCIDENTS

## Mitigation Measures

**Q:** Mitigation measures are changes to the design, phasing, or operation that would reduce or avoid environmental impacts. Please suggest mitigation measures that could address impacts related to operations and maintenance.

FIND ANOTHER PARKING AREA & PARK ACCESS OTHER THAN PROPOSED TWILIGHT PARKING LOT @ 5345 BELL RD.

## Alternatives

**Q:** The applicant will consider alternatives that meet the basic objectives for the project that could potentially reduce or avoid environmental impacts. Do you have ideas for alternatives that would reduce or avoid environmental impacts?

OTHER LOCATION

SMALLER PARKING LOT

Save Auburn Ravine Salmon & Steelhead

California Rifle & Pistol Assoc.

## Interested Parties

**Q:** Do you know of public agencies, public and private groups, or individuals that the applicant should contact regarding this project and the accompanying EIR? If so, please list them.

CA. FISH & GAME COMMISSION / SIERRA CLUB / CRPA / SARSAS / CSPA / PCCP

If you would prefer to take this card with you and provide comments later, please send them by, **2018** to: July 6

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603.

You can review the Notice of Preparation (NOP) at Placer County's website at:
https://placer.ca.gov/departments/communitydevelopment/planning

Placer County Conservation Program

California Sport Fishing Protection Alliance



~~5325~~ 5345

## Shirlee Herrington

**From:** Wally Gaffney <wgaffney37@gmail.com>
**Sent:** Friday, July 06, 2018 3:26 PM
**To:** Shirlee Herrington
**Subject:** Proposed Twilight Parking Lot

Dear Shirlee,

Let it be know that I am vehemently opposed to proposed Twilight Parking Lot !

This area is very near my family's home

This area is zoned residential/agriculture not Parking Lots

Major concerns of my friends and neighbors are

FIRE
SAFETY
COST
DRAINAGE OF PARKING LOT HAZARDOUS WASTE TO PONDS & CREEKS IN NEAR PROXIMITY

Thank you for your time and consideration on this matter....

Please Respond

Wally Gaffney
4961 Bell Rd.
916-275-1653
Wgaffney37@gmail.com

RECEIVED
JUL 02 2018
CDRA

Dear Shirlee ,

As a tax paying, law abiding citizen I am very concerned regarding the proposed parking lot at 5345 Bell Rd., so-called Twilight ride property.

I built a home for my family 15 years ago @ 4961 Bell Rd, **20 acre parcel zoned residential/agricultural.**

Let it be known I am vehemently opposed to this proposed parking area for many reasons listed below:

*increased fire danger from non-residents
*safety issues
*county expenditures not approved by residents
*parking lot in rural Auburn zoned residential/ag
*many problems that will plague new parking as evident at Mt Vernon/Mears Rd Fiasco; theft, loitering, illegal parking, trash
*devaluation of surrounding properties
*cattle grazing and ranching activities will be decimated by the influx of users
*increased potential for wildland fire and traffic safety issues

I feel Placer County is trying to shove their agenda down our throats without properly notifying residents.

Screen meeting held 6/14 @ county planning conference room was well attended by my concerned friends and neighbors but it seemed to fall on smug non engaged county employees. Why were the supervisors not there??? As I understand it the supervisors have the final vote on this issue. If so, I believe their presence is or should be mandatory.

Thanks so much for reading this heartfelt message. I would very much appreciate a response to this letter. You represent your constituents. We voted you in office to represent us. Please do so.

Please respond at your earliest convenience.

Very Concerned Resident,

Wally Gaffney by Lynn Gaffney

Wally Gaffney
4961 Bell Rd
Auburn, CA 95602
916-275-1653
wgaffney37@gmail

## Shirlee Herrington

**From:** Jaya Perryman <seejaya@mac.com>
**Sent:** Friday, July 06, 2018 10:03 AM
**To:** Placer County Environmental Coordination Services; Jennifer Montgomery; Andy Fisher; Placer County Agricultural Commission; Rebeca Solomon; Mike DiMaggio
**Subject:** Hidden Falls Access Bell Rd

July 6, 2018

Objections/Considerations

1) The existing roads including Cramer, Lonestar and Bell are inadequate (and dangerous) for the traffic impact that will result

2) The influx of people will increase the chance of fire

3) Will devastate the rural agricultural neighborhood in the area

4) Will disturb and destroy sensitive habitat

5) Why would the disaster at Mears Rd be duplicated?

6) There is no plan for clean up and patrol of the area

7) Many recreational areas in California (and the world, ie. Thailand, New Zealand, Iceland) are being restricted because of overuse

8) The paradigm of attracting “more and more” visitors is antiquated, more appropriate to the 1950’s and 60’s

9) Placer County needs to consider the consequences and the future of our community as it will affect the existing, tax paying citizens who will bear the brunt of the expense and inconvenience that will result from this project

10) A careful review needs to be done and other options need to be contemplated

Dr. Jaya Perryman
4360 Burt Ln
Auburn CA 95602
APN 07604302

Anita M Wise
6125 View Way
Auburn CA 95602
June 14th 2018

APN 075-030-018-000

Board of Supervisors
Placer County.

Dear sirs,
I strongly object to the possibility of having a parking lots on the Twilight Ride Property at 5345 Bell Road Auburn CA.
Its going to cause an absolute nightmare with the traffic along Lone Star Road.

Anita M Wise

Anita M. Wise

RECEIVED
JUN 18 2018
CDRA

June 10, 2018

Environmental Coordination Services
Community Development Resource Agency
3091 County Center Dr.
Suite 190
Auburn, CA 05603

Dear Shirlee Herrington-

I am writing to you regarding the proposal for Placer County to purchase a 50 Acre Twilight Ride Property at 5345 Bell Road, which will provide more access to Hidden Falls Park. The proposal is to provide a 100 car and 40 truck-horse trailer parking, as well as stables, bike rentals, picnic area, restrooms etc.

We chose to build our lovely home at 4961 Bell Road APN (026-120-024-5109), 20 acres-3 minutes from above proposed parking site, specifically as it was located in rural Auburn and had small country roads. With the above proposed purchase, it will have not only an impact on Bell Road, it will impact homes on Cramer and Lonestar. I am certain that all of the homeowners on these roads have the same feeling. Our roads are not designed to accommodate this increased level of traffic. There would not only be a huge influx of traffic, but I am certain that this would also impact our property values. There will be increased littering, property damage, drug use, trespassing, illegal parking as well as theft. Today, our little one lane bridge can only manage the traffic we have. These roads are all very narrow and have blind curves and not designed for this type of increased use.

We are vehemently opposed to the project. Please let me know what we need to do to prevent this.

Best Regards,

Wally & Lynn Gaffney

Wally and Lynn Gaffney
4961 Bell Road
Auburn, CA 95602
(916) 275-1653

## Shirlee Herrington

**From:** DIANE PHILLIPS <tntsierra769@att.net>
**Sent:** Thursday, July 05, 2018 8:23 PM
**To:** Placer County Environmental Coordination Services
**Subject:** Hidden Falls Expansion

Dear Shirlee Herrington,

I am writing to you today to comment on the Hidden Falls Expansion Project. I feel that this project would be an asset to Placer and Nevada counties. I live on Highway 49 at the Bear River Bridge in Nevada County close to where the new expansion would have a new staging area. Although I know it will create more traffic in the area I feel that it would also increase property values in the area. Not everyone can say they have a 3,800 acre nature preserve with 30+ miles of multi-use trails within a 10 minute drive from their house.

Again I am confirming that I support the construction of the Hidden Falls Expansion Project.

Sincerely,
Diane Phillips
24744 State Highway 49
Auburn, CA 95602
530-269-1517

Brian Mark Wise
6125 View Way
Auburn CA 95602
June 14th 2018

APN 075-030-018-000

Board of Supervisors
Placer County.

Dear sirs,
I strongly object to the possibility of having a parking lots on the Twilight Ride Property at 5345 Bell Road Auburn CA.
Its going to cause an absolute nightmare with the traffic along Lone Star Road.

B.M.Wise

June 14, 2018

Shirlee Herrington
Environmental Coordination Services
3091 County Center Drive, Suite #190
Auburn, CA 95603

Regarding: Hidden Falls Regional Park Trails Network Expansion Project
Twilight Ride Property

We recently received a letter from the Placer County Development Research Agency notifying us of the proposed additional entrance and parking lot for Hidden Falls Regional Park and Expansion via property off Bell Road which will **drastically and negatively impact** not only Bell Road, but also Cramer, Lone Star, and Highway 49. Due to the fact that we live on Lone Star Road, we are extremely interested and concerned and changed plans so that we could attend the important meeting tonight at the Placer County Planning Commission on June 14, 2018.

We also attended the Placer County Meeting regarding the proposed Auburn Valley Country Club entrance on February 21, 2017. We sat quietly, and listened intently to the many affected people who spoke vigorously **against** the proposal, many of whom live on or near Mears Road, Mears Place, Mount Vernon and adjacent roads. We sat quietly, and listened intently to the many affected people that spoke vigorously **against** the proposal, many of whom live on or near that proposal, which would have negatively affected all of us who live in the Auburn countryside.

The opposing homeowners in February had many valid and verifiable reasons for their disappointment and dismay, all of which we completely sympathized with. Most of them addressed the following problems they currently experience, including: increased crime, mail theft, trash and garbage left on the road and on their property (bottles, cans, cigarettes, fast food boxes, papers, miscellaneous junk and even soiled baby diapers), an excess amount of cars, trucks and horse trailers, people, dogs, and bicyclists. [illegible] danger and water supply are huge issues in rural Auburn.

In addition, some of the Mears Road property owners stated that they have been verbally harassed by park visitors. Their continued concerns regarding the availability and speed of police, fire, and emergency response teams getting to their homes in case of emergency due to the traffic and congestion on the roads is not only valid, but very scary.

***And, here we are again.*** We have lived on Lone Star Road for 38 years, and our concerns about another possible entrance via Bell Road to the expanded Hidden Falls Park is not only nearly impossible, but extremely dangerous. We do not want to be subjected to the same problems experienced every day by the Mount Vernon area homeowners.

Placer County Board of Supervisors are voted into office by the Placer County residents, and are elected by the voters to represent us, our homes and our property. Their job is to look out for **OUR** best interests, not the people that do not live here and do not pay our county taxes. Disrupting our lives, our property, our roads, our safety, etc., is definitely not in **OUR** best interests. Then, who is to benefit from this atrocity? Definitely, not those of us that bought a home and/or property and had a dream of living quietly in the beautiful and serene rural Auburn countryside.

Thank you!

Jim & Jane Goddard
11400 Lone Star Road
Auburn, CA 95602
Parcel #075-040-066-000
530-269-0717 (home)
530-320-2282 (Jim cell)
530-906-6747 (Jane cell)
Teresajane50@gmail.com
jgjimbpop16@gmail.com

Cc: Placer County Board of Supervisors

February 28, 2017

Shirlee Herrington
Andy Fischer
Lisa Carnahan
Environmental Coordination Services
3091 County Center Drive, Suite 190
Auburn, CA 95603

We recently received a letter from the Auburn Valley Property Owners Association, notifying us of the proposed additional entrance to Hidden Falls Regional Park and Expansion via Lone Star Road, Cramer, or Bell Roads. Due to the fact that we live on Lone Star Road, we were extremely interested and attended the meeting at the Placer County Planning Commission on February 21, 2017. We sat quietly, and listened intently to the many affected people that spoke vigorously against the proposal, many of whom live on or near Mears Road, Mears Place, Mount Vernon and adjacent roads.

The opposing homeowners had many valid and verifiable reasons for their disappointment and dismay, all of which we completely sympathize with. Most of them addressed the following problems they currently experience, including: increased crime, mail theft, trash and garbage left on the road and on their property (bottles, cans, cigarettes, fast food boxes, papers, miscellaneous junk and even soiled baby diapers), an excess amount of cars, trucks and horse trailers, people, dogs, and bicyclists. In addition, some of the property owners stated that they have been verbally harassed by park visitors. Their continued concerns regarding the availability and speed of police, fire, and emergency response teams getting to their homes in case of emergency due to the traffic and congestion on the roads is not only valid, but very scary.

We have lived on Lone Star for 37 years, and our concerns about another entrance via our country road to an expanded Hidden Falls Park that is not only nearly impossible, but extremely dangerous for the following reasons:

1. Lone Star Road is a narrow country road. For many years, there was not a painted line in the middle to separate the traffic. Years ago, they slightly increased the width of asphalt so that it was legal and wide enough to put a center line. However, it is still a very narrow road.

2. Lone Star Road is not a straight shot back to Auburn Valley Country Club. Once you turn onto Lone Star, on the way to the Country Club, there are several hairpin curves, and blind sections of the road with difficult line-of-sight issues of oncoming traffic.

3. When they updated Highway 49, and expanded it to 4 lanes, residents on both sides of Lone Star Road rallied for a stop light at the intersection. We were denied because there is a curve in the road prior to the intersection (coming from Auburn) and not enough time for people to slow down and stop, since the speed limit is 65 (although most people go 70 – 75).

4. Lone Star does not have sidewalks or a bike lane therefore, walking or bike riding on the road is dangerous. Our neighborhood mailbox is situated at a dangerous place in the road; there is not ample room to pull over safely.

We would be happy to discuss any and/or all of our concerns with you, and personally give you a tour of our beautiful and quiet neighborhood. Make no mistake, we intend to do everything we can to keep it that way!!

Thank you!

Jim + Jane Goddard

Jim & Jane Goddard
11400 Lone Star Road
Auburn, CA 95602
530-269-0717 (home)
530-320-2282 (Jim cell)
530-906-6747 (Jane cell)
Teresajane50@gmail.com
jgjimbpop16@gmail.com

Cc: Placer County Board of Supervisors

Date: June 25, 2018

To: Supervisor Jack Duran, District 1
Supervisor Robert Weygandt, District 2
Supervisor Jim Holmes, District 3
Supervisor Kirk Uhler, District 4
Supervisor Jennifer Montgomery, District 5
Shirlee Herrington, Environmental Coordination Services

From: Jim & Jane Goddard
11400 Lone Star Road
Auburn, CA 95602

Re: Hidden Falls Regional Park
Twilight Ride Property

Placer Land Trust Mission Statement: *"Placer Land Trust is a non-profit organization working with **willing** landowners and conservation partners to permanently preserve Placer County's natural and agricultural lands for future generations".*

We attended the NOP Scoping Meeting that was held on June 14, 2018 regarding the proposed Twilight Ride Property. We were so extremely disappointed in the entire evening that we decided to bring our thoughts and concerns directly to our Placer County Supervisors. It is extremely important for **our** Supervisors to hear directly from **their** property owners, constituents, and supporters in rural Auburn. (Our June 14 letter is attached – written prior to the meeting).

Mr. Fischer and Ms. Carnahan opened the meeting with the same rhetoric and power point pictures that we all heard and saw at the meeting that was held last year when Placer Land Trust was attempting to acquire an alternative entrance to Hidden Falls through the Auburn Valley Country Club. Our letter regarding that proposal and meeting is also included (February 28, 2017). In addition to Mr. Fischer and Ms. Carnahan, there were three consultants, for a total of 5 people running the meeting.

- Due to the fact that there were no Placer County Supervisors in attendance, we were told that the meeting was being recorded. Please, please, please, take your valuable time to closely listen to the very concerned homeowners and property owners in the proposed Twilight Ride neighborhood; along with many people from the surrounding area. One property owner (who owns property that would adjoin the proposed parking lot) broke down in tears from heartache and deep concern. I closely watched Mr. Fischer and Ms. Carnahan while she cried, they showed no empathy, no response. As the evening continued, complete boredom was apparent on all 5 of their faces.

- We arrived early so we could sit near the front so we could see and hear everything that was said. We didn't count the number of people that voiced their opinions, but there was at least 25-30+ in opposition of the proposed Twilight Ride parking lot. There was one woman that spoke in favor of the proposed parking lot; but of course, when questioned, she did not live in the affected area.

- One longtime property owner, and almost last to speak, directly asked those on the 5 person panel, if they lived near the proposed parking lot, or in Auburn. They looked out at the crowd and stared in complete silence. The gentleman asked several times again until Mr. Fischer finally admitted that he lived in El Dorado County.

The money that would be spent on this proposed project is astounding!! It would continue to drain the Placer County coffers with: continual trail maintenance costs, parking lot road maintenance, trail maintenance, garbage control, water supply, septic, 24 hour crime watch, property and public safety, theft and fire prevention, electrical costs, daily restroom janitorial, and so much so much more. In addition, the costs to improve Highway 49, Bell, Cramer, and Lone Star to adequately and safely handle the huge increase in traffic on our country roads. What happened to the round-abouts on Highway 49 that were proposed at another meeting we attended?

One woman eloquently spoke at the meeting, charging Mr. Fischer and Ms. Carnahan to come back with an in-depth cost analysis and budget of an entire list items that must be financially projected. That information should then be presented to the Placer County Board of Supervisors and Placer County residents at a future meeting before any formal consideration of going forward with the Twilight Ride proposal.

As longtime residents of Placer County, we see the need for so many more important areas that require financial attention, as opposed to a parking lot that will serve approximately no more than 75% of the people coming to Auburn for a hike or ride that live outside of Placer County. I know for a fact, the day-use people are not paying our taxes, and when there is a tax increase to pay for the huge parking lot, and everything that goes with it, it will be us that will bear the tax burden, not those taking a drive into Auburn to spend a day at Hidden Falls. Who wins .... definitely not those of us that live on the property line or on or near the roads leading into Hidden Falls. There are many beautiful areas to hike in Placer County that do not disrupt the lives and homes of our residents, and that the Placer County Supervisors and local folks can be proud of.

Again, please listen to the recording of the meeting, and carefully read all the letters you will receive from property owners in Placer, the County that voted for you to protect them!! As you can see, the landowners affected by the proposed Twilight Ride are not "**willing**" (per your Mission Statement) to have our lives disrupted for a huge parking lot with increased daily traffic in the middle of our beautiful and quiet rural Auburn countryside.

Jim + Jane Goddard

Jim & Jane Goddard
11400 Lone Star Road
Auburn, CA 95602
Parcel #075-040-066-000
530-269-0717 (home)
530-320-2282 (Jim cell)
530-906-6747 (Jane cell)
Teresajane50@gmail.com
jgjimbpop16@gmail.com

Cc: **Placer County Planning Department:** Richard Roccucci, Nathan Herzog, Richard Johnson, Jeffrey Moss, Anders Hague, Larry Sevison, Wayne Nader
**Placer County Parks Commission:** Doyle Radford, Gordon Holt, David Tooker, James Ricker, Pamela Berger, Richard Murry II

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603

June 10, 2018

RECEIVED
JUN 13 2018
CDRA

Regarding: Revised Notice of Preparation of a Subsequent Environmental Impact Report for the Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project

Subject: Assessment Number 026-110-010-000; Tax Rate Area 056-026; Fee Parcel Number 026-220-010-000

5395 Bell Road, Auburn, CA 95602

Please be informed, on Friday, June 1, 2018, we read the article in the Auburn Journal dated May 31, 2018 headlining "New Hidden Falls trailhead for North Auburn?". The surprise and personal shock we experienced is beyond description. Previously, we were following the available information and attended three meetings on the subject of access. We sent a letter following the scoping meeting in February expressing our "...fear that what is being planned is an attempt to fix one problem by causing other problems of an even greater scope." We asked to not dismiss the local constituents. We read newsletters, checked the papers and asked others if anything was reported. At no time were we contacted regarding all of the planning and preparation being pursued and we have learned a meeting was held with this as an action item and no notices were sent. We are submitting our objections now against this action as reported in the June 4, 2018 Notice.

Previously, the discussions included existing roads and no projected access points through private property within a rural community. The Auburn Journal article on the 31st of May was an overview of what is being pursued and we printed out the June 4, 2018 document revealing what appears to be a completed plan for the expansion areas suggesting the intent to proceed for approval even before hearing from the constituents. Our focus is on the so called Twilight Ride Property at 5345 Bell Road in Auburn (APNs026-110-012 and 018) Reference is made to the original Conditional Use Permit in January 2010 and the Environmental Impact Report and it is stated that the County has elected to release a Revised Notice of Preparation and a modified Conditional Use Permit. This is not acceptable and we object to anything other than an entirely new process specific to the above stated parcels.

Our individual research calls up the legality of your actions, concerns for the rule of law at all levels and undermining our fundamental rights. We conclude that our individual freedoms are being attacked. To consider the clearing and developing of the land in question to a parking lot of immense size, public access along our local roads and use to visitors exceeding any imaginable number will denigrate the neighborhood and result in the urbanization of our rural lands. This does not address the very specific items that are listed in the Revised Notice dated June 4, 2018 including operational measures to be initiated as a result of negative impacts at the Mt. Vernon & Mears Rd. location. Also, the Subsequent Environmental Impact Report as described is inadequate and limited in its focus and relying on the reports as applied to the original studies and reports applying to the Mears Rd. location.

Overall, the entire report is flawed and totally unacceptable. The proposal for the 100 car and 40 truck-horse trailer parking lots, plus a Stable, Horse Boarding, Bike Rental, Picnic Area, Restrooms, Drinking Water, Off-site Access Road(s), trail network expansion and interpretive displays and nature education classes and more to be developed or considered on a site within a location consisting of private properties with homes, ranches with livestock, grazing, agricultural fields, irrigation ponds and creeks, private wells, orchards and gardens and the property owners living on the properties that would be negatively impacted is beyond comprehension. These items listed barely touch on a larger list of areas that need to be addressed.

Based on the enormity of the project, the number of property owners and citizens involved, the lack of an adequate report and no evidence of a County plan to implement a proposal that would address zoning, encroachment, liability, property value, traffic, fire, crime, crowd control, homeless concerns, population increases due to visitors, to name just a few, in addition to previous issues, it is clear this proposal needs to be reconsidered and to cease and desist until such time as all issues and concerns are adequately addressed.

Respectfully submitted,

James G. Piette and Jean Piette Trustees

Placer County Board of Supervisors June 25,2018

175 Fulweiler Ave.

Auburn, CA 95603

Attention: Supervisors Jack Duran, Robert Weygandt, Jim Holmes, Kirk Uhler, Jennifer Montgomery

CC: Placer County Planning Commission, Placer County Parks Commission,

Municipal Advisory Commissions (MACS)

RECEIVED
JUL 06 2018
CDRA

Re: Hidden Falls Regional Park (HFRP) Twilight Ride Property

To All Concerned:

On June 18, 2018 We submitted a letter to the Supervisors of Placer County expressing my concern regarding the actions already taken regarding the purchase of above property and the blatant disregard for the property owners/residents adjacent to and in the area affected by projected plans. I posed questions and stated concerns. I can only refer you to that letter that should be in your files and I am attaching a copy in this mailing.

There are only so many questions and comments your constituents, property owners, tax payers, registered voters can pose in such an unbelievable plan of action. Those who are not immediately impacted may ask why we are opposed to the plan as they like the idea of a Regional Park and want to be able to easily and readily access it. Those of us who are being impacted respond regarding the fact that we have always supported Placer Legacy and the Hidden Falls Regional Park which is supposed to be in the best interest of the local residents and property owners. Little did we know the Supervisors and County Commissioners would rise to the occasion when an opportunity arose by out of the area property owners who offered them a way to get out of the mess they had all created at the Mears Road location of the HFRP. This opportunity was acted on so rapidly that it was completely developed and only lacks the final signatures to close escrow and all before any of the constituents had any knowledge of what was happening.

As I learn more and more as we search and inquire I become more and more antagonistic and angry. I will not lie down and allow you to do this dastardly deed without a fight. You are the ones with what seems to be the power and control and I can only imagine that you are feeling almighty about now. If you do I am sorely disappointed in the people who are supposed to be representing us.

Jean Piette James G. Piette

Jean Piette and James G. Piette, 5395 Bell Road, Auburn 95602
530-888-1340 jean39.piette@gmail.com

Shirlee Herrington, Environmental Coordination Services,
3091 County Center Drive, Suite 190, Auburn 95603

RECEIVED
JUN 25 2018
CDRA

AN OPEN LETTER TO THE PLACER COUNTY BOARD OF SUPERVISORS

Placer County Board of Supervisors
175 Fulweiler Ave.
Auburn, CA 95603

June 18, 2018

Re: Proposed Placer County Hidden Falls Regional Park Trails Network Expansion Project

Attention: Supervisor Jack Duran, District 1
Supervisor Robert Weygandt, District 2
Supervisor Jim Holmes, District 3
Supervisor Kirk Uhler, District 4
Supervisor Jennifer Montgomery, District 5

Submitted by: James G. and Jean Piette; Assessment No. 026-110-010-000

Each of you have the privilege of holding a vote on the above project that will change the lives of the people in an entire area of the County. I am speaking of the Bell Road corridor (if you will) and the property owners faced with the potential for an invasive development.

We became aware of the plans by the article in the Auburn Journal on Thursday, May 31, 2018. Unfortunately it was a complete shock to all of us and we are not even close to getting over the shock. As a matter of fact, we are disappointed by the experience we had at the Scoping meeting on Friday, June 15th conducted by Andy Fisher and Lisa Carnahan. It seemed like a waste of time to stand up and share our questions and concerns without anyone in a position to provide some answers and assure us that we were being heard. We have attended other meetings that ended without any input and the same statements that we could be assured that they were listening and would be getting the information posted once considered. This has not happened in the past as we are still looking for the information following the February, 2017 Scoping meeting. It is difficult to understand how those who say they are listening to us, who have no vote, can adequately convey our statements to those who will be voting. They sat and passively listened as we were in an angry rage and emotionally overwhelmed or attempted to control ourselves in an attempt to make some sense of what we are dealing with in this regard.

I submitted the attached copy of our letter prior to the June 14th meeting. It is vital that each of you are informed on the subject as it is presented by the constituents in the area since each of you will vote on the project. We do understand that the 3 to 2 vote was already recorded well before any of us even knew what was happening. This has caused all of us a major concern as well as reading the June 4, 2018 report that appears to be a project near completion without any contact or consideration for the constituents prior to its writing. It is also reported that the purchase of the Twilight Ride property is already in escrow waiting for the go ahead. When asked, Andy Fisher said when the property became available they couldn't show their hand like in a card game. This brings into question the legality of the procedures. If you were one of the property owners I wonder if your stomach would be churning at this knowledge too.

It is not clear if any of you have visited the Twilight Ride acres off Bell Road. I can only assume that you have viewed the maps. The maps do not show the surrounding properties including our home on 10 acres overlooking the potential parking lot and development. It is incomprehensible to me to think that you could have or plan to vote for this project if you have seen the actual properties. If you have visited and still believe it is feasible I have to ask, where are your commitments to the people you are representing and supposed to serve? Do you truly believe it is in the best interest of the property owners to place the proposed project on residential/agricultural land? Do you know how many property owners are going to be impacted? Do you have some notion that we are going to benefit in any way? We are your constituents and a Regional Park is supposed to be for the local residents. The figures of the existing/original park show that the greater number of visitors are, just that, visitors who drive Into our communities with no responsibilities toward the local tax base, toward the services available and the maintenance of our local roads to name just a few. It has also been revealed that the existing Mears Road area has experienced crime, littering, disregard for others properties, property damage, trespassing, homeless issues, drug issues, unleashed animals, disregard for park hours and more.

The benefits to the County coffers and the Placer Land Trust investments may be your primary consideration at the expense of your constituents. This would be blatantly wrong and a black mark against your service. Since when do Counties function as businesses? There are no figures shown regarding the benefits but there are some that show some exorbitant amounts being spent and proposed to be paid, such as the offer for the 50 acres which is considerably above the value of said acreage. Whatever your figures show, it is reported our property values would go down from 25% to 50% if the project is approved. Our questions is, "Do you even care?"

I plan to submit additional communications as more information is gathered. I hope you will read the letters submitted and add them to the docket. I urge you to reconsider your support of this horrendous development and take time to review other options. There are other options.

Sincerely,

Jean and James Piette
5395 Bell Road, Auburn, CA 95602
530-888-1340 jean39.piette@gmail.com

Attachment Cc: June 10, 2018 Letter to Ms. Herrington

Shirlee Herrington, Environmental Coordination Services, Community Development Resource Agency, 3091 County Center Drive, Suite 190, Auburn, CA 95603

## Shirlee Herrington

**From:** Rosalie Wohlfromm <rwohlfromm@att.net>
**Sent:** Thursday, June 14, 2018 7:39 AM
**To:** Placer County Environmental Coordination Services
**Cc:** Jennifer Montgomery
**Subject:** Hidden Falls

As regards to the proposed Hidden Falls Regional Park Expansion, I have a question. Has any thought gone into widening the access roads to the park? It is proposed that a parking lot will be constructed to accommodate 100 cars and 40 truck-horse trailers. I can't imagine the road (especially Cramer) can support this extra traffic.

I have friends who live in the area who tell me that the roads are narrow, have blind curves, and are not safe. They say the roads can hardly handle the current traffic now. People who live there know they have to drive to the very right of their lane to avoid on-coming car. (A friend narrowly escaped a collision after a truck took one of these curves dangerously close to the middle of his lane.)

I realize we need extra parking spaces. I've heard the complaints of illegal parking, littering, theft, etc. made by the neighbors adjacent to Hidden Falls. I just wonder if any thought at all went to the access roads and the problems the extra traffic might incur.

Rosalie Wohlfromm
1115 Humbug Way, Auburn 95603

July 3, 2018

To Be Included in  Comments for Environmental Impact Report
Proposed Hidden Falls/Twilight Property access

To Whom It May Concern:

We are writing this letter to express our strong opposition to the proposed purchase of the Twilight Ride property at 5345 Bell Road with the intention to create a new access point to Hidden Falls Regional Park. This access point is to include 100 parking spots for cars and 40 more for trucks with horse trailers. Future additions to this site include restrooms with showers, bike rentals and various retail concession buildings.

This proposal is a TERRIBLE idea!  Our neighborhood roadways, Bell, Cramer, Lonestar, Joeger, Dry Creek and other narrow rural roads with their twists, turns, and blind spots that lead to this proposed access point were not intended to be used as major throughways.  This proposed action will lead to an increase in traffic, speeding vehicles (already a problem since the speed limit was raised!), accidents, noise, litter, and other environmental pollutants in our rural community.  We recently finished construction on our dream home on Bell Road and have been shocked and disappointed to find out that this is being proposed for our peaceful rural area.  We moved away from the Bay Area 2 years ago and up to Auburn to get away from the traffic, noise and congestion.  We purchased 4.8 acres and loved the location.  We can't believe the County thinks this is a good idea to increase access to bring in revenues, at the expense of its own community by destroying a beautiful and peaceful area and ruining our property values. People visiting from out of our area do not seem to respect our trails and parks.  They drive recklessly, blare their music, throw trash out of their vehicles and litter our trails.  Why the need to commercialize this park?  Why must something beautiful be ruined for the sake of some extra money?  I hike Hidden Falls often and have to take a trash bag with me when I hike to pick up other people's trash left behind, dirty diapers, water bottles, food wrappers, etc.

It is unthinkable that an area zoned for agriculture and dotted with oak trees and containing wetlands, would be turned into a parking lot and a retail venue. In addition, from my understanding taking approximately four hundred thousand dollars from the Tree Preservation Fund to purchase this property is not the way these funds were intended to be spent.  Since the Tree Preservation Fund contribution will constitute 33% of the total acquisition cost, at least 33% of the property must be preserved as oak woodland habitat. This means that up to 67% of the trees and woodland habitat may be removed for a parking lot and trailhead. It will also be necessary to remove dozens and dozens of trees including heritage oaks to widen these roads to accommodate traffic and bicycle lanes that the Supervisors have approved. This extensive destruction of habitat, and plant and animal communities appear to be directly opposed to the Placer Legacy Program's mission and objectives. It is far from clear that this is a fair way to pay for this property.  We have beautiful wineries and ranches in this area that are enough to encourage people to visit and enjoy the area.  Many bicyclists enjoy riding these peaceful roads for exercise and to visit the wineries with their cycling clubs.  We have local residents walking and jogging as well.
The availability of water and the opportunity for fire are also concerns of mine.  As a resident I understand how to conserve resources and to be fire safe.  Non-locals do not realize how quickly a fire can spread.  It only takes one match, a cigarette discarded from a vehicle or just the right spark to begin a fire and once it begins it doubles in size every few minutes. Another concern is the millions of other dollars needed to carry this project forward, and this is not how I want my tax dollars spent.

We urge you to table this project in its current state. This project merits a meaningful comprehensive master plan to include projections of fiscal expenditures, impact of residents and their quality of life and address safety concerns with input from a committee that need to include community members.

Having the Mears Road neighborhood negatively impacted by the current access point to Hidden Falls has already been devastating enough. Unfortunately, the location of Hidden Falls is not meant for large amounts of people to visit. There are plenty of other beautiful places like the American River Canyon for people to visit without impacting residents, their livestock and their quality of living.

We encourage and pray that you to listen to our united voices and discard this project. Leave Hidden Falls Regional Park as is, before it is completely ruined and the ripple effect spreads to North Auburn!

Sincerely,

Darrell & Linda Graham , *Preserve Rural Placer*

Street 4125 Bell Road Auburn, CA 95602

Email lindag3026@yahoo.com dd283@yahoo.com

# Hidden Falls Regional Park
# Subsequent Environmental Impact Report
# Scoping Meeting Comment Card

Please write clearly and note that all comments received become a part of the public record. If you'd like to provide your name or contact information, please do so:

Name: Darrell & Linda Graham Organization/Address: 4125 Bell Road, Auburn, CA 95602

Email: lindag3026@yahoo.com Date July 3, 2018

[X] Please add me to the mailing list for this project.

---

Preliminary review by Placer County staff indicates the proposed Hidden Falls Regional Park Expansion Project Subsequent Environmental Impact Report (SEIR) will evaluate impacts to the following environmental topics:

- **Aesthetics**
- **Agriculture**
- **Air Quality**
- **Biological Resources**
- **Cultural Resources**
- **Energy**
- **Geology, Soils, Paleontology**
- **Greenhouse Gas Emissions**
- **Hazards and Hazardous Materials**
- **Hydrology and Water Quality**
- **Land Use and Planning**
- **Noise**
- **Population, Employment, Housing**
- **Public Services and Recreation**
- **Transportation/Traffic**
- **Utilities and Service Systems**

**Q:** Have we missed any important topics? If so, which ones and why? Should any topics be dismissed from further consideration? If so, which ones and why? _____

**Q:** Should any topics be broken out separately or combined? Why? _____

**Q:** Due to what you know about the location, scale, and character of this proposed park expansion, should the EIR place particular focus on certain topics? If so, which ones? land use and planning, transportation and traffic, agriculture, noise, hazards and hazardous materials.

**Q:** Are there existing conditions on the site or in the vicinity of the project site we should consider in the EIR analysis? If so, please describe them. lack of proper roadways that don't impact residents, rural properties, generations of ranching, these roadways are not designed to access a park.

## Mitigation Measures

**Q:** Mitigation measures are changes to the design, phasing, or operation that would reduce or avoid environmental impacts. Please suggest mitigation measures that could address impacts related to operations and maintenance.

We can't in good conscience recommend a better solution. This park is too remote and impacts too many people and properties to have this be a good idea. This area needs to remain in a pristine state and not be commercialized!!

## Alternatives

**Q:** The applicant will consider alternatives that meet the basic objectives for the project that could potentially reduce or avoid environmental impacts. Do you have ideas for alternatives that would reduce or avoid environmental impacts?

There is no good alternative solution to this proposal other than shelving this proposal. Leave this area alone and not introduce more people and more damage to this area. Perhaps the county parks commission look into a shuttling system to bring people to the existing site. That would help with lessening the current problems on Mears Rd.

## Interested Parties

**Q:** Do you know of public agencies, public and private groups, or individuals that the applicant should contact regarding this project and the accompanying EIR? If so, please list them. Every resident in North Auburn west of Hwy. 49, Placer Grown, Placer Wineries & Breweries Chamber of Commerce

If you would prefer to take this card with you and provide comments later, please send them by, **2018** to: July 6

Shirlee Herrington
Environmental Coordination Services
Community Development Resource Agency
3091 County Center Drive, Suite 190
Auburn, CA 95603.

You can review the Notice of Preparation (NOP) at Placer County's website at: https://placer.ca.gov/departments/communitydevelopment/planning

## Shirlee Herrington

**From:** Leslie Prevost <lprevost1964@gmail.com>
**Sent:** Friday, June 15, 2018 7:25 AM
**To:** Shirlee Herrington
**Subject:** Hidden Falls

Hi there,
My husband and I ride hidden falls in a regular basis and fully believe in the expansion.
This is a huge positive for our community as a whole.
To relieve the parking congestion and add more space are pluses.

--
**Leslie Prevost**
**Seducente Ranch and Vineyard**
**Pilot Hill, California 95664**
**www.seducente-ranch.com**
www.facebook.com/seducenteranch/

July 4, 2018

To: Shirlee Herrington sheerrinton@placer.ca.gov

Re: Acquisition of Twilight Ride Property and Access and Expansion of HFRP

In the County MEMORANDUM it states that the Twilight Ride Property is a Placer Legacy Program acquisition. As stated on the Placer County Website, "*Placer Legacy is a Countywide, open space and habitat protection program. Placer Legacy will result in a comprehensive open space plan for Placer County that preserves the diversity of plant and animal communities in the County and addresses a variety of other open space needs, from agriculture and recreation to urban edges and public safety. Placer Legacy will help maintain the County's high quality of life and promote economic vitality."* The Twilight Ride Property Project and Hidden Falls Access and Expansion Program appears to be focusing primarily on recreation. I would like to address the impact of this massive project on 1) protecting open space 2) habitat protection and preserving the diversity of plant and animal communities, 3) agricultural needs.

1)Protecting Open Space: The 50 acre Twilight Ride Property is open space right now. Your project will pave over and urbanize a majority of that 50 acres and it will no longer be open space. Creating trails that cross over Big Hill connecting all the Placer Land Trust properties will urbanize several thousand acres. This is not just open space, it is sacred ground, once the home of Native Americans. Those of us that live near the Twilight Ride Property have found large grinding rocks and Native American artifacts on our property.

2)Habitat Protection and preserving the diversity of plant and animal communities: After the initial destruction of habitats resulting from the construction and paving of the entrance road and parking lots and building trails, restrooms and boarding facilities there will be the ongoing damage. There is a pond (wet land) at the entrance to the property that will probably need to come out resulting in total destruction of that ecosystem. On the west side of the Twilight Ride Property there are two ponds that hold water for approximately eight months of the year. They are home to water fowl, otters, and various pond creatures. Due to the fact that these ponds are at the lowest point on the property, they will receive all the drainage of oil, gas, and toxic pollutants off the parking lot. This will not only damage the habitat of these two ponds, but also pollute the water that overflows from these ponds and makes its way down hill through cattle grazing land and ultimately finding its way to Orr Creek, Racoon Creek and the NID canal.

The 2000+ acres that are part of the proposed Hidden Falls Access and Expansion Program are home to many different animals and birds. Their habitats and preservation will be greatly threatened by this project. With cyclists zipping along, and hikers, equestrians and their dogs roaming around, these creatures will not feel safe and become scarce. There is also the **increased potential for wildfires which will completely destroy their habitat.**

The resulting destruction of trees will be huge. It states in the property purchase agreement, "*Since the Tree Preservation Fund contribution will constitute 33% of the total Property acquisition cost, at least 33% of the property must be preserved as oak woodland habitat."* That means that up to 67% of the trees and woodland habitat may be removed. Additionally, it will also be necessary to remove dozens and dozens of trees, some heritage oaks, along Bell Road for the bicycle lanes that the County supervisors have approved. In order to make Cramer Road and Lone Star Road wider for the added traffic to and from the parking lot and trailhead there will be more trees removed. This extensive destruction of habitat, and plant and animal communities seems to be directly opposed to the Placer Legacy Program's mission and objectives.

3)Agricultural needs: Do you realize that the Twilight Ride Property and several thousand acres of land that is part of the Hidden Falls Expansion is cattle grazing land? Since you don't have cattle on the Hidden Falls Park Property, the cattle grazing will probably end on this acreage too. It is a great concern that the government and non-profits will control more and more of our Placer County agricultural land. Placer Grown and the Placer County Farm Bureau are a vibrant network of Placer County farmers and ranchers and this proposed project, and its urbanized recreation focus is destructive to the sustainability of agriculture in Placer County.

Whether you live in rural north Auburn or are a resident elsewhere in Placer County, these issues are probably important to you. We have a responsibility to make wise choices for our environment. If this project came about from the desire and request for **more** trails, then please step back. Does **wanting more** trails trump 1) protecting open space 2) habitat protection and preserving the diversity of plant and animal communities, and 3) agricultural needs? Please rethink your grand plan and ask yourselves if it **first and foremost protects and preserves open space and the plants, animals, water and air**. I hope that this will not be another example of those in power hurting those with less power simply because they **want more**.

Thank you for letting me share my love for the natural world… I implore you to protect and take care of it, as we all must do.

Respectfully submitted,

Jane Wurst, resident in rural North Auburn

July 5, 2018

To: Shirlee Herrington, sherring@placer.ca.gov

Re: Acquisition of Twilight Ride Property and Access and Expansion of HFRP

Questions for the members of the Parks Commission and the Placer County Supervisors:

Have you met with the California State Department of Parks and Recreation to find out what the necessary Ranger presence would need to be in the Hidden Falls Regional Park and the proposed additional 2,500 acre trail system of the proposed expanded Hidden Falls Regional Park?

- How many trained California State Park Rangers would be needed to monitor the extensive trail system that will be over 3,500 acres? How many daily (nightly)?
- How do the Rangers monitor and deal with people that stay in the park after the park closes?
- How do the Rangers monitor and deal with people trespassing on private property?
- Will you be able to contract with the California State Department of Parks and Recreation to use trained professional rangers?
- What would be the cost annually to the County for Park Rangers?

Have you met with the Placer County Sheriff Department to address issues arising from such a large public venue that is open 365 days a year from sunrise to sunset?

- How will they prevent and deal with trespassing, vandalism, theft, intoxication, transient/homeless issues that will affect residents close to the parking lot and to all property owners throughout and near the proposed park expansion trails?
- Will they budget for and provide an officer on site?

Have you met with the CA Hwy Patrol to discuss and come up with a plan to provide for safe roads and safe driving and cycling on the narrow, winding, hilly, roads with blind curves that lead to the proposed park entrance (Bell Road, Cramer Road and Lone Star Road)?

- Will there be Hwy Patrol presence on these roads daily/hourly?
- How will they enforce the speed limit?
- How will they enforce cyclists following the rules of the road?
- How will they prevent littering on all these roads?

Have you met with Cal Fire to get their input into the increased fire danger that will threaten rural residences and plant and life within the Hidden Falls Park and Expansion area as well as the rural communities on the north, south, east and west of the Park?

- How will they fight wild fires in the highly combustible dry brushy canyons/gorges and oak woodlands that have poor access?
- Do they have adequate personnel to combat such fires during the peak season?

Have you planned and budgeted for Park staff to:

- open and close the park gate daily?
- monitor the extensive trail system daily and at night to prevent hikers and transients from camping overnight?
- pick up litter throughout the extensive trail system?

Respectfully submitted, Jane Wurst, rural North Auburn resident

## Shirlee Herrington

**From:** Placer County Environmental Coordination Services
**Subject:** Neighborhood Traffic Management Program

**From:** Linda Graham [mailto:lindag3026@yahoo.com]
**Sent:** Friday, June 08, 2018 4:39 PM
**To:** Rebeca Solomon <RSolomon@placer.ca.gov>
**Subject:** Neighborhood Traffic Management Program

Hi Rebeca,

I wanted to ask if I could schedule a meeting with you to discuss how the residents in our area can start the process of having a speed and traffic safety survey conducted for the residential area of Bell Road, 3000 block and up. We are new residents to this area after completing a new construction home and over the course of the 18 months we have been living in Auburn and building the house we have experienced some very dangerous conditions with speeding and reckless drivers (passing cars, crossing over the double yellow lines, etc.) since the speed limit was raised to 40 mph. This is a very popular road especially on the weekends with groups of bike riders, motorcycle riders, winery visitors and due to narrow roadways and curves, hills, etc. the speed limit is too high for this area for those who want to feel safe enjoy what our area has to offer.

There is also a proposal to add another staging area for Hidden Falls Regional Park on Bell Road; increasing the amount of traffic which makes it even more important to get the speed reduced and possibly take some other traffic calming measures to get people to slow down. My husband and I worked in law enforcement for 34 and 28 years in the Bay Area before retiring to beautiful Auburn and we chose this area for its peacefulness and low traffic. We are all for the new staging area and park expansion but would like to help in getting the speed issue and roadway safety dealt with BEFORE this proposed expansion happens.

Any help and guidance would be greatly appreciated!

Sincerely,

Linda Graham
4125 Bell Road, Auburn
925-852-7304 cell (best # for contact)
530-888-1257 home

## Shirlee Herrington

**From:** Placer County Environmental Coordination Services
**Subject:** FW: Re[2]: Hidden Falls Regional Park Trail Expansion Project, Notice of Preparation of Subsequent EIR

**From:** Paul Primmer [mailto:pprimmer@gmail.com]
**Sent:** Thursday, June 14, 2018 8:16 PM
**To:** Lisa Carnahan
**Cc:** Shirlee Herrington
**Subject:** Re[2]: Hidden Falls Regional Park Trail Expansion Project, Notice of Preparation of Subsequent EIR

Thanks for getting back. I do have one additional question to add to the ones I already submitted. A recent article in the Auburn Journal said Placer had done some things to get a better fire rating. I was not aware there was a rating system of 1 to 10 where 10 is the worse. Placer was getting lowered from 6 to 5 or 4 and some people might get a lowered Home Owner Insurance rate. What does a park do to an areas fire rating? And to be honest I can't see how it would help our rating and realistically only hurt our area with increased cars an people. Most fires are caused by people. I'm surprised it isn't a line item for an EIR especially in CA.

Paul Primmer
pprimmer@gmail.com
Home: 530 269-2699
Mobile: 530 368-9701

------ Original Message ------
From: "Lisa Carnahan" <LCarnaha@placer.ca.gov>
To: "pprimmer@gmail.com" <pprimmer@gmail.com>
Cc: "Shirlee Herrington" <SHerring@placer.ca.gov>
Sent: 6/6/2018 11:03:17 AM
Subject: RE: Hidden Falls Regional Park Trail Expansion Project, Notice of Preparation of Subsequent EIR

Hello Mr. Primmer,

As the Project Manager for the proposed Project, I was forwarded your comment. All comments received on the original NOP, as well as those received as a result of the Revised NOP, will be addressed within the Draft Subsequent Environmental Impact Report (SEIR). When that document is prepared, you will be notified, as will all other commenters.

If you have any additional questions, please feel free to contact me.

Thank you,

*Lisa Carnahan*
Placer County Parks Division

Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov
(530) 889-6837

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**From:** Paul Primmer [mailto:pprimmer@gmail.com]
**Sent:** Tuesday, June 05, 2018 5:08 PM
**To:** Shirlee Herrington
**Subject:** Re: Hidden Falls Regional Park Trail Expansion Project, Notice of Preparation of Subsequent EIR

Hi Shirlee,

My question is what ever happened to the questions submitted in 2017? I sent an email with questions (and others) regarding the last NOP but never got a response. The new parking off Bell does not negate all the other questions that came from the first NOP. The definition of insanity is doing the same thing over again and expecting different results. Will we ever see answers to the first set of questions?

Paul Primmer
pprimmer@gmail.com
Home: 530 269-2699
Mobile: 530 368-9701

**Shirlee Herrington**

---

**From:** Harry Wyeth <hbwyeth@gmail.com>
**Sent:** Saturday, June 16, 2018 11:59 PM
**To:** Shirlee Herrington
**Subject:** Hidden Falls Expansion

We understand that Hidden Falls Park expansion plans were subject to a recent hearing, which we were unable to attend. My wife and I are hikers and horseback riders who definitely support expansion of the park and improvements to the horse trailer parking situation. This is a wonderful area and Placer County is to be commended for creating this park. We do understand the concerns of neighbors who would rather not have park traffic, but feel that these issues can be dealt with.

Thanks for your consideration.

HARRY and KAREN WYETH

Grass Valley

## Shirlee Herrington

**From:** Jazzyy Catt <jazzyycatt@gmail.com>
**Sent:** Friday, June 15, 2018 7:39 AM
**To:** Shirlee Herrington
**Subject:** Hidden Falls expansion

I am in support of the Hidden Falls expansion and an other areas to be made available for equestrians to ride.
I am a volunteer with Placer County Sheriff's Search and Rescue Mounted Team.
Having places to ride and train our horses is a vital part of saving lost people. So far we have never needed to search for a lost person in an arena, we need the trails.

Thank you

Leslie Gray

RECEIVED
JUL 06 2018
CDRA

QUARRY KENNETH JON & JANET CLAIRE
5495 BELL RD.
AUBURN CA 95602 PARCEL # 026-110-014-000

THE BELL RD PROJECT FOR A HIDDEN FALLS ENTRANCE-PARKING ADDED STRUTURES INCLUDING BATHROOMS SHOWERS BARNS,STABLES AND WHO KNOWS WHAT ELSE,HAS NOT BEEN WELL THOUGHT OUT. THIS WOULD DESTROY THE WAY OF LIFE WE LOVE.

THE DANGER OF FIRE,ADDED NOISE, POSSIBLE LOSS OF WATER TO LOCAL WELLS ARE A CONCERN. IT WOULD ALSO MOST SURELY BRING A HOMELESS PROBLEM.

LAW ENFORCEMENT AND THE FIRE DEPARTMENTS ARE THIN NOW. THE ROADS IN THIS AREA ARE NARROW AND BLIND CURVES ARE MANY.

MY WIFE AND I LIVE AT THE CORNER OF BELL AND CRAMER. VEHICLES WILL HAVE TO MAKE A LEFT TURN IN FRONT OF OUR HOME LESS THEN FIFTY FOOT FROM OUR FRONT DOOR.

FOR THE COUNTY NOT TO LISTEN TO OUR CONCERNS IS WRONG. PROBLEMS INCLUDING FIRE,ACCIDENTS AND UNDESIREABLE PEOPLE CAUSING TROUBLE WILL BE ON YOUR HANDS !!!

4 July 18 KJ Q

Janet Claire Quarry July 3, 2018

Nancy Halcumb
5600 Upper Ridge Way
Auburn CA - 95602
APN # 026-061-041-000
June 14. 2018

To: County of Placer, Development Resource Agency, Board of Supervisors, Placer Land Trust, et. al.

Re: Registering my objection to a parking lot @ 5845 Bell Rd., as access to Hidden Falls Park expansion.

I have lived here for 30 years. I'm a newcomer. Most of these people are ranchers who have lived here all their lives. People, who like me, voted for you, pay your salaries & pay the property taxes! - not the people who you are now catering to. People who will be coming into our neighborhood from all parts of California & more.

This parking lot will impact our roads to our homes, create the same diabolic nightmare as you created on Mears Rd. & our worse fear the increased chance of FIRE!

- continued -

I would reiterate about the devastation you will bring about to our neighborhood, the same things I have heard and seen first-hand from residents on Mears Rd. only magnified by the concessions you plan to develop.

I am not opposed to recreational areas. I am opposed to using Bell Rd. as a parking lot and exposing us to the same devastation the homeowners' face everyday on Mears Rd. Two wrongs do not make a Right!

Sincerely,

Nancy Holcumb.

## Shirlee Herrington

**From:** Tom Ronk <gtronk@icloud.com>
**Sent:** Tuesday, July 03, 2018 1:39 PM
**To:** Shirlee Herrington
**Subject:** Please Table the Twilight Ride Property/Hidden Falls Regional Park Project

DATE: July 3, 2018

TO: Shirlee Herrington

Reference: Twilight Ride Property/Hidden Falls Regional Park

Dear Ms Herrington,

I am writing to express my strong opposition to the proposed purchase of the Twilight Ride property at 5345 Bell Road with the intention to create a new access point to Hidden Falls Regional Park. This access point is to include 100 parking spots for cars and 40 more for trucks with horse trailers. Future additions to this site include restrooms with showers, bike rentals and various retail concession buildings.

Bell Road, Cramer Road, Lone Star Road, Joeger Road, Dry Creek Road, and other rural roads with their twists, turns, and blind spots that lead to this proposed access point were not intended to be used as major throughways. So this proposed action will lead to an increase in traffic and accidents, noise, litter, and other environmental pollutants in our rural community. While the County believes this access will increase revenues, this action will only decrease my property value by thousands of dollars.

It is unthinkable that a property, zoned for agriculture and dotted with oak trees and containing wetlands, would be turned into a parking lot and a retail venue. In addition, from my understanding taking approximately four hundred thousand dollars from the Tree Preservation Fund to purchase this property is not the way these funds were intended to be spent. Since the Tree Preservation Fund contribution will constitute 33% of the total acquisition cost, at least 33% of the property must be preserved as oak woodland habitat. This means that up to 67% of the trees and woodland habitat may be removed for a parking lot and trailhead. It will also be necessary to remove dozens and dozens of trees including heritage oaks to widen these roads to accommodate traffic and bicycle lanes that the Supervisors have approved. This extensive destruction of habitat, and plant and animal communities seems directly opposed to the Placer Legacy Program's mission and objectives. So it is far from clear that this is a fair way to pay for this property.

The availability of water and the opportunity for fire are also concerns of mine. As a resident I understand how to conserve resources and to be fire safe. Non-locals do not realize how quickly a fire can be started and spread. It only takes one match or just the right spark to begin a fire and once it begins it doubles in size every few minutes. Another concern is the millions of other dollars needed to carry this project forward, and this is not how I want my tax dollars spent.

I urge you to table this project in its current state. This project merits a meaningful comprehensive master plan to include projections of fiscal expenditures and address safety concerns with input from a committee that includes community members.

I encourage and hope that you to listen to our united voices.

**George T Ronk II**, on behalf of *Preserve Rural Placer*

Street: 4435 Gambah Drive, Auburn, CA 95602

Email: gtronk@icloud.com

Tel: 1-916-434-6755

# APPENDIX B

Trail Easements

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

**Recording Requested By:**
Aronowitz & Skidmore, Inc.

**When Recorded Mail To:**
Paul S. Aronowitz, Esq.
Aronowitz & Skidmore, Inc.
200 Auburn Folsom Road, Suite 305
Auburn, CA 95603

PLACER, County Recorder
JIM MCCAULEY
DOC- 2011-0045644-00
PLACER TITLE - RECORDING
TUESDAY, JUN 14, 2011 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $3.00 | AUT | $40.00 | SBS | $39.00 |
| ERD | $1.00 | RED | $1.00 | REC | $48.00 |
| ADD | $0.00 | | | | |

Ttl Pd $132.00 Rcpt # 02126333
clkhlmlfj1/ST/1-40

# GRANT OF EASEMENT AND EASEMENT USE AGREEMENT

This Grant of Easement and Easement Use Agreement (the "Agreement") is executed effective as of this 10th day of June, 2011 by and between **HARVEGO REAL ESTATE LLC**, a California limited liability company ("Harvego"), **PETER M. CASWELL AND JACQUELINE F. CASWELL, TRUSTEES OF THE PETER & JACQUELINE CASWELL TRUST DATED NOVEMBER 11, 1998** ("Caswell"), **PLACER LAND TRUST**, a California nonprofit public benefit corporation ("PLT"), and the **COUNTY OF PLACER**, a political subdivision of the State of California (the "County").

## I. RECITALS

A. Harvego is owner of certain real property located in Placer County, California, and more particularly described on **Exhibit A** attached hereto and by reference incorporated herein (the "Harvego Property").

B. Caswell is owner of certain real property located in Placer County, California, and more particularly described on **Exhibit B** attached hereto and by reference incorporated herein (the "Caswell Property").

C. PLT is owner of certain real property located in Placer County, California, and more particularly described on **Exhibit C** attached hereto and by reference incorporated herein (the "PLT Property").

D. The County is owner of a Conservation Easement over the PLT Property and more particularly described on **Exhibit D** attached hereto and by reference incorporated herein (the "County Conservation Easement").

E. Harvego and Caswell each desire to grant to PLT and the County a non-exclusive access easement over each's Harvego Property and Caswell Property for the benefit of the PLT Property and the County Conservation Easement, subject to those terms and conditions as herein set forth.

NOW THEREFORE, in consideration of the facts contained in the Recitals above, the mutual covenants and conditions contained below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows;

## II. GRANT OF EASEMENT

Harvego hereby grants to PLT and the County a non-exclusive easement over that portion of the Harvego Property as shown on **Exhibit E** and as described in **Exhibit E-1,** attached hereto and by reference incorporated herein, and Caswell hereby grants to PLT and the County a non-exclusive easement over that portion of the Caswell Property as shown on **Exhibit E** and as described in **Exhibit E-1,** (together, the "Access Easement") for ingress, egress and utilities of all types and without limitation, on, over, in, and beneath the Harvego Property and the Caswell Property, including, but not limited to, public road purposes, and such related (a) improvements, works of construction, embankments, supports, grades, drainage, and maintenance, (b) soil and slope support, drainage control measures, and (c) landscaping and foliage control measures, without limitation, as reasonable and convenient use, and sound and prudent engineering and construction practices shall require, or as necessary to satisfy the requirements of the County of Placer and the requirements of all other governmental agencies which now or hereafter have jurisdiction over the Harvego Property and the Caswell Property, and shall include all secondary easements to enter upon the Harvego Property and the Caswell Property for purposes of survey, engineering, soil studies, inspection, construction, repair, maintenance, and replacement, and the right to reconstruct all easement facilities to comply with future governmental requirements, including safety measures and road width requirements, so as to assure the continued ingress and egress to the PLT Property. The width of said Access Easement as shown on Exhibits E and E-1 may be expanded to include such adjacent area as the County may determine to be required in accordance with generally accepted engineering standards to accommodate any necessary cuts and fill slopes required to construct a roadway within the boundaries of the Access Easement. The Access Easement shall be for the benefit of and appurtenant to the PLT Property.

## III. USE OF EASEMENT

PLT and the County shall be entitled to make the following uses of the Access Easement:

1. Improvements Required for Public Use. PLT and the County may allow use of the Access Easement by the general public only after: (1) the completion of an operations, management and recreation plan for the PLT Property (the "Plan") as provided in the County Conservation Easement and, (2) the improvement of the road in the Access Easement to a minimum standard, consisting of a road with an all-weather roadway surface of not less than twenty feet (20') in width, which satisfies the County that it is suitable for use by the public in general, it being expressly understood that the Plan may call for the engineering and construction of the road in stages before it is constructed to the full standard as set forth in the Plan, and it being further expressly understood that the road may be improved by parties other than the County.

2. No Use By General Public Until Improved. Until completion of improvements to Access Easement to a minimum standard as set forth in Article III, Section 1, above, the use of the Access Easement by PLT and the County shall be limited to non-public uses, i.e. management and maintenance of the PLT Property and the County Conservation Easement in accordance with the Plan, the terms of the County Conservation Easement and/or any applicable local, state or federal regulatory requirements. PLT shall also have the right to use the Access Easement to periodically bring scheduled small group tours that are under the control of and guided by PLT.

3. Reduction of Area of Easement Upon Completion of Improvements. Upon construction of the improvements to the full standard as set forth in the Plan, the County shall notify Harvego and Caswell in writing. Harvego and/or Caswell may request in writing PLT and the County relinquish and quitclaim all rights to that portion of the Access Easement not needed for roadway purposes. In the event Harvego and/or Caswell so requests, County shall prepare, in coordination with Harvego and Caswell, a quitclaim deed for recordation by Harvego and/or Caswell as to that portion of the Access Easement not needed, and the legal description for the County Access Easement as described herein shall be modified accordingly.

## IV. GENERAL PROVISIONS

1. Separate and Independent Easement Rights—No Joint-Tenancy. This Agreement shall not be interpreted to create any sort of joint-tenancy interest by and between PLT and the County in the Access Easement. This Agreement creates legally separate and distinct rights of use which are for the benefit of each PLT and the County. PLT is the owner in fee simple of the PLT Property and that the County is the owner of the County Conservation Easement, and PLT and the County are each entitled to fully and independently use, in accordance with this Agreement, the Access Easement as either party sees fit and necessary in conjunction with that party's own legally separate and distinct property interest. This Agreement creates separately enforceable rights for PLT and the County; provided, however, it is expressly acknowledged by PLT and the County that this grant creates only one easement and that PLT'S and the County's rights to the use of the Access Easement arise from their ownership rights in and to the PLT Property (i.e., fee and conservation easement respectively).

2. Binding Effect. Each and all of the easements, covenants, conditions and restrictions set forth in this Agreement shall run with and bind the Harvego Property, the Caswell Property, the PLT Property and County Easement. All covenants, conditions and restrictions set forth in this Agreement shall be equitable servitudes. All easements, covenants, conditions and restrictions set forth in this Agreement shall benefit and be binding upon each Party and their respective heirs, successors and assigns and shall create reciprocal rights and obligations, and privity of contract and estate between and among the Parties and their respective heirs, successors and assigns.

3. Amendment. Excepting for a reduction of the area of the Access Easement in accordance with section III(3) above, no amendment, modification, or supplement to this Agreement shall be

binding on any of the Parties unless it is in writing and signed by the Parties in interest at the time of the modification.

4. Warranty of Authority. Each Party represents and warrants to the other that the execution and delivery of the Agreement and the performance of such Party's obligations hereunder have been duly authorized and that the Agreement is a valid and legal agreement binding on such Party and enforceable in accordance with its terms.

5. Further Actions. The Parties shall at their own cost and expense execute and deliver such further documents and instruments and shall take such other actions as may be reasonably required or appropriate to carry out the intent and purposes of this Agreement.

6. Construction. The terms of this Agreement have been negotiated by the parties hereto and the language used in this Agreement shall be deemed to be the language chosen by the parties hereto to express their mutual intent. This Agreement shall be construed without regard to any presumption or rule requiring construction against the party causing such instrument or any portion thereof to be drafted, or in favor of the party receiving a particular benefit under the agreement. No rule of strict construction will be applied against any person.

7. Severability. If any term or provision of this Agreement is determined to be illegal, unenforceable, or invalid in whole or in part for any reason, such illegal, unenforceable, or invalid provisions or part thereof shall be stricken from this Agreement, and such provision shall not affect the legality, enforceability, or validity of the remainder of this Agreement. If any provision or part thereof of this Agreement is stricken in accordance with the provisions of this section, then this stricken provision shall be replaced, to the extent possible, with a legal, enforceable, and valid provision that is as similar in tenor to the stricken provision as is legally possible.

8. Attorney's Fees. If any Party brings an action or proceeding to enforce the terms hereof or declare rights hereunder, the Prevailing Party (as hereafter defined) in any such proceeding, action, or appeal thereon, shall be entitled to reasonable attorneys' fees. Such fees may be awarded in the same suit or recovered in a separate suit, whether or not such action or proceeding is pursued to decision or judgment. The term **"Prevailing Party"** shall include, without limitation, a Party who substantially obtains or defeats the relief sought, as the case may be, whether by compromise, settlement, judgment, or the abandonment by the other Party of its claim or defense. The attorneys' fee award shall not be computed in accordance with any court fee schedule, but shall be such as to fully reimburse all attorneys' fees reasonably incurred.

9. Governing Law. The Parties expressly agree that this Agreement shall be governed by, interpreted under, and construed and enforced in accordance with the laws of the State of California. Any action brought to enforce this Agreement shall be filed in the Superior Court for the State of California for the County of Placer.

10. Entire Agreement. This Agreement and all Exhibits hereto, as well as agreements and other documents referred to in this Agreement constitute the entire agreement between the parties with regard to the subject matter hereof and thereof. This Agreement supersedes all previous agreements between or among the parties. There are no agreements, representations, or warranties between or among the parties other than those set forth in this Agreement or the documents and agreements referred to in this Agreement.

11. Notice. All notices, requests, demands, and other communications required to or permitted to be given under this Agreement shall be in writing and shall be conclusively deemed to have been duly given (1) when hand delivered to the other party; or (2) by mail, three business days after the same have been deposited in a United States post office with first class or certified mail return receipt requested postage prepaid and addressed to the parties as set forth below; or (3) the next business day after same have been deposited with a commercially recognized overnight delivery service reasonably approved by the parties, postage prepaid addressed to the parties as set forth below with the next-business-day delivery guaranteed, provided that the sending party receives a confirmation of delivery from the delivery service provider; or (4) such other method of notice as the parties may otherwise mutually agree to in writing from time to time, including but not limited to notice in electronic format. Each party shall make an ordinary, good faith effort to ensure that it will accept or receive notices that are given in accordance with this paragraph, and that any person to be given notice actually receives such notice. A party may change or supplement the addresses given below, or designate additional addresses, for purposes of this paragraph by giving the other party written notice of the new address in the manner set forth above.

12. List of Exhibits. The following Exhibits are referred to herein and attached hereto: **Exhibit A** – the Harvego Property; **Exhibit B**- the Caswell Property; **Exhibit C** – the PLT Property; **Exhibit D** – the County Conservation Easement; and **Exhibits E and E-1** – Access Easement.

13. Signatures and Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties authorize each other to detach and combine original signature pages and consolidate them into a single identical original. Any one of such completely executed counterparts shall be sufficient proof of this Agreement.

***SIGNATURES ON FOLLOWING PAGES***

IN WITNESS WHEREOF, this Agreement has been executed on the date listed below.

**HARVEGO REAL ESTATE, LLC,** a California limited liability company

By: _____ LLOYD H. HARVEGO  Dated: 6-13-11

Its: Manager

Address for Notice:
2356 Gold Meadow Way, Suite 201
Gold River, CA 95670
Telephone: (916)852-2770
Facsimile: (916)852-2778

**PETER & JACQUELINE CASWELL TRUST DATED NOVEMBER 11, 1998**

_____  Dated: 6/10/11

Peter M. Caswell, Trustee

_____

Jacqueline F. Caswell, Trustee

Address for Notice:
893 Noe Street
San Francisco, CA 94116
Telephone: (650)346-8915
Facsimile: (___)___-____

**PLACER LAND TRUST,** a California nonprofit public benefit corporation

_____  Dated: 6-9-11

By: Fred Yeager
Its: President

_____ 6-10-11

By: Greg McKenzie
Its: Treasurer

Address for Notice:
Placer Land Trust
Attn: Executive Director
11611 Blocker Drive, Suite 110
Auburn, CA 95603
Telephone: (530) 887-9222
Facsimile: (530) 887-7720

**PLACER COUNTY**

By: James Durfee
Its: Director of Facility Services

Dated: 6/13/2011

Address for Notice:
County of Placer
Department of Facility Services
Property Management Division
11476 C Avenue
Auburn CA, 95603
Telephone: (530) 886-4900
Facsimile: (530) 889-6809

Approved as to Form:

Placer County Counsel

Dated: 6/13/11

STATE OF CALIFORNIA )
COUNTY OF PLACER )

On JUNE 9, 2011, before me, DEBORAH K. YUE, Notary Public in and for said County and State, personally appeared FRED YEAGER, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the Sate of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

Notary Public in and for said County and State
DEBORAH K. YUE

(Space above for official notarial area.)

STATE OF CALIFORNIA )
COUNTY OF PLACER )

On JUNE 10, 2011, before me, DEBORAH K. YUE, Notary Public in and for said County and State, personally appeared PETER M. CASWELL AND JACQUELINE F. CASWELL AND GREGG MCKENZIE who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the Sate of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

Notary Public in and for said County and State
DEBORAH K. YUE

(Space above for official notarial area.)

STATE OF CALIFORNIA )
COUNTY OF PLACER )

On JUNE 13, 2011, before me, DEBORAH K. YUE, Notary Public in and for said County and State, personally appeared LLOYD H. HARVEGO, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the Sate of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

Notary Public in and for said County and State
DEBORAH K. YUE

(Space above for official notarial area.)

STATE OF CALIFORNIA )
COUNTY OF PLACER )

On JUNE 13, 2011, before me, DEBORAH K. YUE, Notary Public in and for said County and State, personally appeared JAMES W. DURFEE, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the Sate of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

Notary Public in and for said County and State
DEBORAH K. YUE

(Space above for official notarial area.)

## ACCEPTANCE

This is to certify that the interest in real property described in this Grant of Easement and Easement Use Agreement is hereby accepted on behalf of the public by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to the authority conferred by Resolution No. 2011-93 as approved by the Board of Supervisors on April 12, 2011, and the Grantee consents to the recordation thereof by its duly authorized agent.

Dated 6/13/2011

James Durfee
Director of Facility Services

**Exhibit A** – the Harvego Property

Legal Description for Resultant Lot 1

# EXHIBIT "A"

TO GRANT OF EASEMENT AND EASEMENT USE AGREEMENT
(THE HARVEGO PROPERTY)

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

RESULTANT LOT 1
A PORTION OF THE TRACT OF LAND DESCRIBED AS PARCEL TWO IN THE GRANT DEED TO THE CALLAHAN FAMILY TRUST AND THE WATSON FAMILY TRUST RECORDED IN INSTRUMENT NO. 98-0047102, OFFICIAL RECORDS PLACER COUNTY, LOCATED IN SECTION 1, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., PLACER COUNTY, CALIFORNIA AND A PORTION OF THE TRACTS OF LAND DESCRIBED AS PARCEL ONE AND PARCEL TWO IN THE GRANT DEED TO MICHAEL B. WATSON AND CONSTANCE C. WATSON RECORDED IN INSTRUMENT NO. 2004-0019428, OFFICIAL RECORDS PLACER COUNTY, LOCATED IN SECTION 1, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M, PLACER COUNTY, CALIFORNIA.

ALL THOSE PORTIONS OF THE ABOVE DESCRIBED PARCELS LYING WITHIN THE FOLLOWING DESCRIBED LINES:

BEGINNING AT A POINT ON THE NORTH LINE OF THE ABOVE DESCRIBED PARCEL TWO CONVEYED IN INSTRUMENT NO. 2004-0019428, A POINT ON THE NORTH LINE OF THE ABOVE DESCRIBED SECTION 1, AND FROM SAID POINT THE NORTHEAST CORNER OF SAID SECTION 1 BEARS NORTH 88 DEGREES 46 MINUTES 36 SECONDS EAST FOR A DISTANCE OF 2524.58 FEET; THENCE FROM THE POINT OF BEGINNING, LEAVING SAID NORTH LINE SOUTH 04 DEGREES 06 MINUTES 50 SECONDS EAST FOR A DISTANCE OF 2004.74 FEET TO A POINT ON THE SOUTHWESTERLY LINE OF THE ABOVE DESCRIBED PARCEL ONE CONVEYED IN INSTRUMENT NO. 2004-0019428; THENCE SOUTH 89 DEGREES 06 MINUTES 00 SECONDS WEST FOR A DISTANCE OF 700.68 FEET; THENCE SOUTH 58 DEGREES 36 MINUTES 00 SECONDS WEST FOR A DISTANCE OF 200.28 FEET TO THE SOUTHWESTERLY CORNER OF SAID PARCEL ONE; THENCE ALONG THE SOUTHEASTERLY, SOUTHERLY AND WESTERLY LINES OF THE ABOVE DESCRIBED PARCEL TWO CONVEYED IN INSTRUMENT NO. 98-0047102 THE FOLLOWING SIX (6) CONSECUTIVE COURSES AND DISTANCES:

1) SOUTH 39 DEGREES 33 MINUTES 24 SECONDS WEST FOR A DISTANCE OF 393.42 FEET;

2) NORTH 80 DEGREES 35 MINUTES 35 SECONDS WEST FOR A DISTANCE OF 453.13 FEET;
3) NORTH 19 DEGREES 35 MINUTES 14 SECONDS EAST FOR A DISTANCE OF 575.48 FEET;
4) NORTH 28 DEGREES 03 MINUTES 24 SECONDS EAST FOR A DISTANCE OF 124.71 FEET;
5) NORTH 45 DEGREES 34 MINUTES 34 SECONDS EAST FOR A DISTANCE OF 464.92 FEET; AND
6) NORTH 54 DEGREES 04 MINUTES 39 SECONDS EAST FOR A DISTANCE OF 502.20 FEET TO THE SOUTHWESTERLY CORNER OF SAID PARCEL TWO CONVEYED IN INSTRUMENT NO. 2004-0019428; THENCE ALONG THE SOUTHWESTERLY AND WESTERLY LINES OF SAID PARCEL TWO THE FOLLOWING FOUR (4) CONSECUTIVE COURSES AND DISTANCES:

1) NORTH 51 DEGREES 35 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 379.97 FEET;
2) NORTH 48 DEGREES 30 MINUTES 36 SECONDS WEST FOR A DISTANCE OF 599.70 FEET;
3) NORTH 07 DEGREES 17 MINUTES 04 SECONDS EAST FOR A DISTANCE OF 311.82 FEET; AND
4) NORTH 00 DEGREES 34 MINUTES 06 SECONDS WEST FOR A DISTANCE OF 104.84 FEET, MORE OR LESS, TO THE NORTHWEST CORNER OF SAID PARCEL TWO, A POINT ON THE NORTH LINE OF SAID SECTION 1;
THENCE NORTH 88 DEGREES 46 MINUTES 36 SECONDS EAST ALONG SAID NORTH SECTION LINE FOR A DISTANCE OF 1143.73 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIPTION ENCOMPASES ONE LEGAL PARCEL OF LAND AS APPROVED BY MINOR BOUNDARY LINE ADJUSTMENT NO. 20060582.

APNS: 026-370-043 AND 044

**Exhibit B**- the Caswell Property

Legal Description for Resultant Lots 2 & 3

# EXHIBIT "B"

TO THE GRANT OF EASEMENT AND EASEMENT USE AGREEMENT
(CASWELL PROPERTY)

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

A PORTION OF THE TRACT OF LAND DESCRIBED AS PARCEL TWO IN THE GRANT DEED TO THE CALLAHAN FAMILY TRUST AND THE WATSON FAMILY TRUST RECORDED IN INSTRUMENT NO.98-0047102, OFFICIAL RECORDS PLACER COUNTY, LOCATED IN SECTION 1, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., PLACER COUNTY, CALIFORNIA AND A PORTION OF THE TRACTS OF LAND DESCRIBED AS PARCEL ONE AND PARCEL TWO IN THE GRANT DEED TO MICHAEL B. WATSON AND CONSTANCE C. WATSON RECORDED IN INSTRUMENT NO. 2004-0019428, OFFICIAL RECORDS PLACER COUNTY, LOCATED IN SECTION 1, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., PLACER COUNTY, CALIFORNIA.

ALL THOSE PORTIONS OF THE ABOVE DESCRIBED PARCELS LYING WITHIN THE FOLLOWING DESCRIBED LINES.

BEGINNING AT A POINT ON THE NORTH LINE OF THE ABOVE DESCRIBED PARCEL TWO CONVEYED IN INSTRUMENT NO. 2004-0019428, A POINT ON THE NORTH LINE OF THE ABOVE DESCRIBED SECTION 1, AND FROM SAID POINT THE NORTHEAST CORNER OF SAID SECTION 1 BEARS NORTH 88 DEGREES 46 MINUTES 36 SECONDS EAST FOR A DISTANCE OF 2524.58 FEET; THENCE FROM THE POINT OF BEGINNING, LEAVING SAID NORTH LINE SOUTH 04 DEGREES 06 MINUTES 50 SECONDS EAST FOR A DISTANCE OF 2004.74 FEET TO A POINT ON THE SOUTHWESTERLY LINE OF THE ABOVE DESCRIBED PARCEL ONE CONVEYED IN INSTRUMENT NO. 2004-0019428; THENCE ALONG THE SOUTHWESTERLY LINES OF SAID PARCEL ONE THE FOLLOWING TWO (2) CONSECUTIVE COURSES AND DISTANCES:

1) NORTH 89 DEGREES 06 MINUTES 00 SECONDS EAST ALONG THE SOUTHERLY LINE OF SAID PARCEL ONE FOR A DISTANCE OF 229.32 FEET; AND
2) SOUTH 35 DEGREES 54 MINUTES 00 SECONDS EAST ALONG THE SOUTHWESTERLY LINE OF SAID PARCEL ONE FOR A DISTANCE OF 275.03 FEET; THENCE LEAVING SAID SOUTHWESTERLY LINE NORTH 24

DEGREES 03 MINUTES 39 SECONDS EAST FOR A DISTANCE OF 2465.90 FEET, MORE OR LESS, TO A POINT ON THE NORTH LINE OF PARCEL TWO CONVEYED IN INSTRUMENT NO. 2004-0019428, A POINT ON THE NORTH LINE OF SECTION 1, AND FROM SAID POINT THE NORTHEAST CORNER OF SAID SECTION 1 BEARS NORTH 88 DEGREES 46 MINUTES 36 SECONDS EAST FOR A DISTANCE OF 984.47 FEET; THENCE SOUTH 88 DEGREES 46 MINUTES 36 SECONDS WEST ALONG SAID NORTH LINE FOR A DISTANCE OF 1540.11 FEET TO THE POINT OF BEGINNING.

APN: 026-370-045 AND 046

PARCEL TWO:

A PORTION OF THE TRACT OF LAND DESCRIBED AS PARCEL TWO IN THE GRANT DEED TO THE CALLAHAN FAMILY TRUST AND THE WATSON FAMILY TRUST RECORDED IN INSTRUMENT NO. 98-0047102, OFFICIAL RECORDS PLACER COUNTY, LOCATED IN SECTION 1, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., PLACER COUNTY, CALIFORNIA AND A PORTION OF THE TRACTS OF LAND DESCRIBED AS PARCEL ONE AND PARCEL TWO IN THE GRANT DEED TO MICHAEL B. WATSON AND CONSTANCE C. WATSON RECORDED IN INSTRUMENT NO. 2004-0019428, OFFICIAL RECORDS PLACER COUNTY, LOCATED IN SECTION 1, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M, PLACER COUNTY, CALIFORNIA.

ALL THOSE PORTIONS OF THE ABOVE DESCRIBED PARCELS LYING WITHIN THE FOLLOWING DESCRIBED LINES:

BEGINNING AT A POINT ALONG THE EAST LINE OF THE ABOVE DESCRIBED PARCEL ONE CONVEYED IN INSTRUMENT NO. 2004-0019428, A POINT ON THE EAST LINE OF THE ABOVE DESCRIBED SECTION 1, AND FROM SAID POINT THE NORTHEAST CORNER OF SAID SECTION 1 BEARS NORTH 00 DEGREES 57 MINUTES 46 SECONDS WEST FOR A DISTANCE OF 848.81 FEET; THENCE FROM THE POINT OF BEGINNING, LEAVING SAID EAST LINE SOUTH 52 DEGREES 44 MINUTES 01 SECONDS WEST FOR A DISTANCE OF 2458.90 FEET TO A POINT ON THE SOUTHWESTERLY LINE OF SAID PARCEL ONE; THENCE NORTH 35 DEGREES 54 MINUTES 00 SECONDS WEST ALONG SAID SOUTHWESTERLY LINE FOR A DISTANCE OF 80.17 FEET; THENCE LEAVING SAID SOUTHWESTERLY LINE NORTH 24 DEGREES 03 MINUTES 39 SECONDS EAST FOR A DISTANCE OF 2465.90 FEET, MORE OR LESS, TO A POINT ON THE NORTH LINE OF THE ABOVE DESCRIBED PARCEL TWO CONVEYED IN INSTRUMENT NO. 2004-0019428, A POINT ON THE NORTH LINE OF SAID SECTION 1; THENCE NORTH 88 DEGREES 46 MINUTES 36 SECONDS EAST ALONG SAID NORTH SECTION LINE FOR A DISTANCE OF 984.47 FEET TO THE NORTHEAST CORNER OF SAID

PARCEL ONE BEING THE NORTHEAST CORNER OF SECTION 1; THENCE SOUTH ALONG THE EAST LINE OF SAID PARCEL ONE SOUTH 00 DEGREES 57 MINUTES 46 SECONDS EAST FOR A DISTANCE OF 848.41 FEET TO THE POINT OF BEGINNING.

APN: 026-370-047 AND 048

**Exhibit C** – the PLT Property

Insert Legal Description or recording information for Harvego Bear River Preserve (Bruin Ranch)

# EXHIBIT "C"

**(TO GRANT OF EASEMENT AND EASEMENT USE AGREEMENT)**
**(PLACER LAND TRUST PROPERTY)**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B. & M., THAT LIE SOUTHEASTERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER CORNER OF SAID SECTION 25.

APNS: 026-020-012 AND 013

PARCEL TWO:

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B.& M., WHICH ARE BOUNDED AS FOLLOWS:

ON THE NORTHWEST BY THE CENTER LINE OF THE BEAR RIVER; ON THE EAST BY THE EAST LINE OF SAID SECTION 25; ON THE SOUTHEAST BY A LINE DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER (1/4) CORNER OF SAID SECTION 25; AND ON THE WEST BY THE WEST LINE OF SAID SECTION 35.

EXCEPTING THEREFROM THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36.

ALSO EXCEPTING THEREFROM ALL THAT PORTION OF THE SOUTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SECTION 25,

TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B. & M., WHICH LIES IN PLACER COUNTY.

APNS: 026-020-009 AND 011

PARCEL THREE:

THAT PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, DESCRIBED AS BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 3; THENCE SOUTH ALONG THE EAST LINE THEREOF 52.60 CHAINS; THENCE NORTH 37 DEGREES 30 MINUTES WEST 66.08 CHAINS TO THE NORTH ONE-QUARTER CORNER OF SECTION 3; THENCE EAST ALONG THE NORTH LINE OF SECTION 3, A DISTANCE OF 40 CHAINS TO THE POINT OF BEGINNING.

APN: 026-061-003

PARCEL FOUR:

EASEMENTS FOR INGRESS, EGRESS AND UTILITIES APPURTENANT TO PARCELS ONE THROUGH THREE ABOVE AS SET FORTH AND DESCRIBED IN THOSE CERTAIN DEEDS RECORDED JUNE 19, 1998, AS INSTRUMENT NO, 98-0047099, 98-0047100, 98-0047102, AND 98-0047103, OFFICIAL RECORDS, AND AS AMENDED BY AN INSTRUMENT RECORDED APRIL 6, 2000 AS INSTRUMENT NO. 2000-0023218

PARCEL FIVE:

BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., AND RUNNING THENCE WEST ON THE LINE DIVIDING THE SOUTH HALF OF SAID SECTION 3 INTO NORTH AND SOUTH HALVES TO THE WEST LINE OF SAID SECTION 3; THENCE NORTH ALONG THE WEST LINE OF SAID SECTION 3, TO THE NORTHWEST CORNER OF SAID SECTION 3; THENCE EAST ALONG THE TOWNSHIP LINE, THE SAME BEING THE NORTH SECTION LINE OF SAID SECTION 3 TO THE POINT BEING COINCIDENT WITH THE NORTHEAST CORNER OF LOT 2 (INCORRECTLY REFERRED TO AS LOT 21 IN DEED THAT RECORDED FEBRUARY 15, 2005 AS INSTRUMENT NO. 2005-0017339) OF THE NORTHWEST FRACTIONAL QUARTER OF SAID SECTION 3; THENCE SOUTH 37 DEGREES 30' EAST 66 CHAINS AND EIGHT LINKS TO A POINT ON THE EAST LINE OF SAID SECTION 3, 52 CHAINS AND SIXTY LINKS SOUTH OF THE NORTHEAST CORNER OF SAID SECTION 3; AND THENCE SOUTH ON THE EAST LINE OF SAID SECTION 3 TO THE POINT OF BEGINNING.

PARCEL TEN:

A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED ON APRIL 25, 1977, IN BOOK 1832, AT PAGE 385, PLACER COUNTY OFFICIAL RECORDS.

PARCEL ELEVEN:

AN EASEMENT 50 FEET IN WIDTH APPURTENANT TO PARCELS SIX AND SEVEN ABOVE OVER AN EXISTING ROADWAY LOCATED IN THE WEST HALF OF SECTION 10, THE NORTHEAST QUARTER OF SECTION 10, AND THE WEST HALF OF SECTION 11, ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., THE CENTERLINE OF SAID EASEMENT BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 10 FROM WHICH THE NORTHWEST CORNER OF SAID SECTION 10 BEARS NORTH 00 DEGREES 10'06" WEST 2133.23 FEET; THENCE FROM SAID POINT OF BEGINNING FOLLOWING ALONG THE CENTERLINE OF AN EXISTING ROADWAY THE FOLLOWING COURSES AND DISTANCES: SOUTH 64 DEGREES 38'04" EAST 231.43 FEET; SOUTH 45 DEGREES 43'10" EAST 426.44 FEET; SOUTH 69 DEGREES 45'45" EAST 286.51; NORTH 53 DEGREES 59'10" EAST 438.84 FEET; SOUTH 77 DEGREES 52'03" EAST 303.33 FEET; SOUTH 70 DEGREES 21'07" EAST 203.08 FEET; SOUTH 59 DEGREES 39'03" EAST 193.48 FEET; SOUTH 75 DEGREES 57'57" EAST 203.25 FEET; SOUTH 83 DEGREES 37'59" EAST 275.43 FEET; SOUTH 83 DEGREES 11'57" EAST 580.80 FEET; SOUTH 88 DEGREES 14'07" EAST 913.74 FEET; NORTH 53 DEGREES 34'28" EAST 156.51 FEET; NORTH 61 DEGREES 24'16" EAST 566.00 FEET; NORTH 48 DEGREES 27'58" EAST 370.45 FEET; NORTH 62 DEGREES 00'58" EAST 243.94 FEET; NORTH 65 DEGREES 03'28" EAST 258.89 FEET; SOUTH 77 DEGREES 10'07" EAST 258.05 FEET; SOUTH 50 DEGREES 56'52" EAST 579.20 FEET; SOUTH 22 DEGREES 21'03" WEST 221.03 FEET; SOUTH 44 DEGREES 08'57" EAST 168.60 FEET; SOUTH 61 DEGREES 16'46" EAST 152.83 FEET; SOUTH 88 DEGREES 31'02" EAST 329.19 FEET; NORTH 74 DEGREES 40'08" EAST 168.46 FEET; SOUTH 83 DEGREES 12'09" EAST 209.37 FEET; SOUTH 58 DEGREES 39'39" EAST 205.29 FEET; SOUTH 21 DEGREES 32'49" EAST 414.40 FEET; SOUTH 13 DEGREES 18'24" EAST 268.18 FEET; TO THE END OF THE EASEMENT HEREIN DESCRIBED AS GRANTED IN DEED RECORDED MARCH 24, 1995 AS INSTRUMENT NO. 95-014536.

SAID EASEMENT BEING THE SAME EASEMENT DESCRIBED FIRST IN EXHIBITS A, B, AND C OF THE PARCEL MAP WAIVER NO. P73170W RECORDED APRIL 8, 1980 IN BOOK 2245, PAGE 218 OFFICIAL RECORDS.

PARCEL TWELVE:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS GRANTED IN EASEMENT DEEDS RECORDED FEBRUARY 3, 2005 AS INSTRUMENT NO. 2005-0013289 AND JUNE 24, 2005 AS INSTRUMENT NO. 2005-0081571 OFFICIAL RECORDS.

PARCEL THIRTEEN:

A NON-EXCLUSIVE EASEMENT FOR A ROADWAY AND UTILITIES OVER LAND DESCRIBED AS FOLLOWS:

A PORTION OF THAT TRACT OF LAND GRANTED TO FLORENCE P.C. FANG ON SEPTEMBER 16, 2003 RECORDED AS DOCUMENT NO. 2003-0158548, OFFICIAL RECORDS OF PLACER COUNTY, LOCATED IN SECTION 10, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., DESCRIBED AS FOLLOWS:

A STRIP OF LAND 50 FOOT WIDE LYING 25 FEET EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE NORTHERLY LINE OF THE ABOVE DESCRIBED TRACT OF LAND, FROM SAID POINT OF BEGINNING THE NORTHWEST CORNER OF SAID SECTION 10 BEARS SOUTH 89 DEGREES 17 MINUTES 05 SECONDS WEST A DISTANCE OF 1720.62 FEET; THENCE ALONG SAID PROPOSED CENTERLINE SOUTH 33 DEGREES 40 MINUTES 30 SECONDS EAST A DISTANCE OF 410.06 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 10 DEGREES 15 MINUTES 40 SECONDS A LENGTH OF 107.45 FEET AND A CHORD BEARING SOUTH 38 DEGREES 48 MINUTES 20 SECONDS EAST A DISTANCE OF 107.31 FEET; THENCE SOUTH 43 DEGREES 56 MINUTES 10 SECONDS EAST A DISTANCE OF 173.76 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 12 DEGREES 41 MINUTES 32 SECONDS, A LEGNTH OF 132.91 FEET AND A CHORD BEARING SOUTH 37 DEGREES 35 MINUTES 24 SECONDS EAST A DISTANCE OF 132.64 FEET; THENCE SOUTH 31 DEGREES 14 MINUTES 38 SECONDS EAST A DISTANCE OF 265.49 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 1010.00 FEET, A CENTRAL ANGLE OF 15 DEGREES 16 MINUTES 41 SECONDS, A LENGTH OF 269.32 FEET AND A CHORD BEARING SOUTH 38 DEGREES 52 MINUTES 58 SECONDS EAST A DISTANCE OF 268.52 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF

250.00 FEET, A CENTRAL ANGLE OF 46 DEGREES 39 MINUTES 20 SECONDS, A LENGTH OF 203.57 FEET AND A CHORD BEARING SOUTH 23 DEGREES 11 MINUTES 38 SECONDS EAST A DISTANCE OF 198.00 FEET; THENCE SOUTH 00 DEGREES 08 MINUTES 02 SECONDS WEST A DISTANCE OF 119.96 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 16 DEGREES 02 MINUTES 55 SECONDS A LENGTH OF 168.06 FEET AND A CHORD BEARING SOUTH 08 DEGREES 09 MINUTES 30 SECONDS WEST A DISTANCE OF 167.51 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE LEFT, CONCAVE EASTERLY, HAVING A RADIUS OF 800.00 FEET, A CENTRAL ANGLE OF 23 DEGREES 37 MINUTES 44 SECONDS, A LENGTH OF 329.92 FEET AND A CHORD BEARING SOUTH 04 DEGREES 22 MINUTES 05 SECONDS WEST A DISTANCE OF 327.59 FEET; THENCE SOUTH 07 DEGREES 26 MINUTES 47 SECONDS EAST A DISTANCE OF 475.59 FEET TO THE CENTERLINE OF AN EXISTING 50 FOOT WIDE ROADWAY AND PUBLIC UTILITY EASEMENT AS RECORDED IN BOOK 2245, AT PAGE 218, OFFICIAL RECORDS OF PLACER COUNTY.

THE SIDELINES OF SAID 50 FOOT WIDE STRIP OF LAND ARE TO BE LENGTHENED OR SHORTENED AS NECESSARY TO TERMINATE AT SAID NORTHERLY BOUNDARY AND THE NORTH BOUNDARY OF SAID EXISTING ROADWAY AND PUBLIC UTILITY EASEMENT.

**Exhibit D** – the County Conservation Easement

Insert Recording information for County Conservation Easement

# EXHIBIT "D"

**(TO GRANT OF EASEMENT AND EASEMENT USE AGREEMENT)**
**(COUNTY CONSERVATION EASEMENT)**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B. & M., THAT LIE SOUTHEASTERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER CORNER OF SAID SECTION 25.

APNS: 026-020-012 AND 013

PARCEL TWO:

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B.& M., WHICH ARE BOUNDED AS FOLLOWS:

ON THE NORTHWEST BY THE CENTER LINE OF THE BEAR RIVER; ON THE EAST BY THE EAST LINE OF SAID SECTION 25; ON THE SOUTHEAST BY A LINE DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER (1/4) CORNER OF SAID SECTION 25; AND ON THE WEST BY THE WEST LINE OF SAID SECTION 35.

EXCEPTING THEREFROM THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36.

ALSO EXCEPTING THEREFROM ALL THAT PORTION OF THE SOUTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SECTION 25,

TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B. & M., WHICH LIES IN PLACER COUNTY.

APNS: 026-020-009 AND 011

PARCEL THREE:

THAT PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, DESCRIBED AS BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 3; THENCE SOUTH ALONG THE EAST LINE THEREOF 52.60 CHAINS; THENCE NORTH 37 DEGREES 30 MINUTES WEST 66.08 CHAINS TO THE NORTH ONE-QUARTER CORNER OF SECTION 3; THENCE EAST ALONG THE NORTH LINE OF SECTION 3, A DISTANCE OF 40 CHAINS TO THE POINT OF BEGINNING.

APN: 026-061-003

PARCEL FOUR:

EASEMENTS FOR INGRESS, EGRESS AND UTILITIES APPURTENANT TO PARCELS ONE THROUGH THREE ABOVE AS SET FORTH AND DESCRIBED IN THOSE CERTAIN DEEDS RECORDED JUNE 19, 1998, AS INSTRUMENT NO, 98-0047099, 98-0047100, 98-0047102, AND 98-0047103, OFFICIAL RECORDS, AND AS AMENDED BY AN INSTRUMENT RECORDED APRIL 6, 2000 AS INSTRUMENT NO. 2000-0023218

PARCEL FIVE:

BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., AND RUNNING THENCE WEST ON THE LINE DIVIDING THE SOUTH HALF OF SAID SECTION 3 INTO NORTH AND SOUTH HALVES TO THE WEST LINE OF SAID SECTION 3; THENCE NORTH ALONG THE WEST LINE OF SAID SECTION 3, TO THE NORTHWEST CORNER OF SAID SECTION 3; THENCE EAST ALONG THE TOWNSHIP LINE, THE SAME BEING THE NORTH SECTION LINE OF SAID SECTION 3 TO THE POINT BEING COINCIDENT WITH THE NORTHEAST CORNER OF LOT 2 (INCORRECTLY REFERRED TO AS LOT 21 IN DEED THAT RECORDED FEBRUARY 15, 2005 AS INSTRUMENT NO. 2005-0017339) OF THE NORTHWEST FRACTIONAL QUARTER OF SAID SECTION 3; THENCE SOUTH 37 DEGREES 30' EAST 66 CHAINS AND EIGHT LINKS TO A POINT ON THE EAST LINE OF SAID SECTION 3, 52 CHAINS AND SIXTY LINKS SOUTH OF THE NORTHEAST CORNER OF SAID SECTION 3; AND THENCE SOUTH ON THE EAST LINE OF SAID SECTION 3 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION LYING OUTSIDE OF PLACER COUNTY.

APNS: 026-061-001 AND 068 (PORTION)

PARCEL SIX:

THE WEST HALF OF THE SOUTH HALF OF THE SOUTH HALF OF SECTION 3 IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.&M.

APNS: 026-061-007 AND 051

PARCEL SEVEN:

THAT PARCEL OF LAND DESCRIBED IN DEED TO ALLAN Y. WU RECORDED ON MARCH 4, 1991 IN THE OFFICE OF THE COUNTY RECORDER OF PLACER COUNTY ON DOCUMENT NUMBER 91-011403, OFFICIAL RECORDS, BEING A PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, MOUNT DIABLO BASE AND MERIDIAN, PLACER COUNTY, CALIFORNIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST ONE-HALF OF THE SOUTH ONE-HALF OF THE SOUTH ONE-HALF OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, OF THE MOUNT DIABLO BASE AND MERIDIAN.

APN: 026-061-068 (PORTION)

PARCEL EIGHT:

A 50' NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED IN BOOK 1806, AT PAGE 243, ET SEQ, PLACER COUNTY OFFICIAL RECORDS, AS MORE PARTICULARLY DESCRIBED IN PARAGRAPH (B), AT PAGE 244 OF SAID INSTRUMENT.

PARCEL NINE:

A 50' NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED IN BOOK, 1806, AT PAGE 243, ET SEQ, PLACER COUNTY OFFICIAL RECORDS, AS MORE PARTICULARLY DESCRIBED IN PARAGRAPH (A) AT PAGE 244 OF SAID INSTRUMENT.

PARCEL TEN:

A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED ON APRIL 25, 1977, IN BOOK 1832, AT PAGE 385, PLACER COUNTY OFFICIAL RECORDS.

PARCEL ELEVEN:

AN EASEMENT 50 FEET IN WIDTH APPURTENANT TO PARCELS SIX AND SEVEN ABOVE OVER AN EXISTING ROADWAY LOCATED IN THE WEST HALF OF SECTION 10, THE NORTHEAST QUARTER OF SECTION 10, AND THE WEST HALF OF SECTION 11, ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., THE CENTERLINE OF SAID EASEMENT BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 10 FROM WHICH THE NORTHWEST CORNER OF SAID SECTION 10 BEARS NORTH 00 DEGREES 10'06" WEST 2133.23 FEET; THENCE FROM SAID POINT OF BEGINNING FOLLOWING ALONG THE CENTERLINE OF AN EXISTING ROADWAY THE FOLLOWING COURSES AND DISTANCES: SOUTH 64 DEGREES 38'04" EAST 231.43 FEET; SOUTH 45 DEGREES 43'10" EAST 426.44 FEET; SOUTH 69 DEGREES 45'45" EAST 286.51; NORTH 53 DEGREES 59'10" EAST 438.84 FEET; SOUTH 77 DEGREES 52'03" EAST 303.33 FEET; SOUTH 70 DEGREES 21'07" EAST 203.08 FEET; SOUTH 59 DEGREES 39'03" EAST 193.48 FEET; SOUTH 75 DEGREES 57'57" EAST 203.25 FEET; SOUTH 83 DEGREES 37'59" EAST 275.43 FEET; SOUTH 83 DEGREES 11'57" EAST 580.80 FEET; SOUTH 88 DEGREES 14'07" EAST 913.74 FEET; NORTH 53 DEGREES 34'28" EAST 156.51 FEET; NORTH 61 DEGREES 24'16" EAST 566.00 FEET; NORTH 48 DEGREES 27'58" EAST 370.45 FEET; NORTH 62 DEGREES 00'58" EAST 243.94 FEET; NORTH 65 DEGREES 03'28" EAST 258.89 FEET; SOUTH 77 DEGREES 10'07" EAST 258.05 FEET; SOUTH 50 DEGREES 56'52" EAST 579.20 FEET; SOUTH 22 DEGREES 21'03" WEST 221.03 FEET; SOUTH 44 DEGREES 08'57" EAST 168.60 FEET; SOUTH 61 DEGREES 16'46" EAST 152.83 FEET; SOUTH 88 DEGREES 31'02" EAST 329.19 FEET; NORTH 74 DEGREES 40'08" EAST 168.46 FEET; SOUTH 83 DEGREES 12'09" EAST 209.37 FEET; SOUTH 58 DEGREES 39'39" EAST 205.29 FEET; SOUTH 21 DEGREES 32'49" EAST 414.40 FEET; SOUTH 13 DEGREES 18'24" EAST 268.18 FEET; TO THE END OF THE EASEMENT HEREIN DESCRIBED AS GRANTED IN DEED RECORDED MARCH 24, 1995 AS INSTRUMENT NO. 95-014536.

SAID EASEMENT BEING THE SAME EASEMENT DESCRIBED FIRST IN EXHIBITS A, B, AND C OF THE PARCEL MAP WAIVER NO. P73170W RECORDED APRIL 8, 1980 IN BOOK 2245, PAGE 218 OFFICIAL RECORDS.

PARCEL TWELVE:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS GRANTED IN EASEMENT DEEDS RECORDED FEBRUARY 3, 2005 AS INSTRUMENT NO. 2005-0013289 AND JUNE 24, 2005 AS INSTRUMENT NO. 2005-0081571 OFFICIAL RECORDS.

PARCEL THIRTEEN:

A NON-EXCLUSIVE EASEMENT FOR A ROADWAY AND UTILITIES OVER LAND DESCRIBED AS FOLLOWS:

A PORTION OF THAT TRACT OF LAND GRANTED TO FLORENCE P.C. FANG ON SEPTEMBER 16, 2003 RECORDED AS DOCUMENT NO. 2003-0158548, OFFICIAL RECORDS OF PLACER COUNTY, LOCATED IN SECTION 10, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., DESCRIBED AS FOLLOWS:

A STRIP OF LAND 50 FOOT WIDE LYING 25 FEET EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE NORTHERLY LINE OF THE ABOVE DESCRIBED TRACT OF LAND, FROM SAID POINT OF BEGINNING THE NORTHWEST CORNER OF SAID SECTION 10 BEARS SOUTH 89 DEGREES 17 MINUTES 05 SECONDS WEST A DISTANCE OF 1720.62 FEET; THENCE ALONG SAID PROPOSED CENTERLINE SOUTH 33 DEGREES 40 MINUTES 30 SECONDS EAST A DISTANCE OF 410.06 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 10 DEGREES 15 MINUTES 40 SECONDS A LENGTH OF 107.45 FEET AND A CHORD BEARING SOUTH 38 DEGREES 48 MINUTES 20 SECONDS EAST A DISTANCE OF 107.31 FEET; THENCE SOUTH 43 DEGREES 56 MINUTES 10 SECONDS EAST A DISTANCE OF 173.76 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 12 DEGREES 41 MINUTES 32 SECONDS, A LEGNTH OF 132.91 FEET AND A CHORD BEARING SOUTH 37 DEGREES 35 MINUTES 24 SECONDS EAST A DISTANCE OF 132.64 FEET; THENCE SOUTH 31 DEGREES 14 MINUTES 38 SECONDS EAST A DISTANCE OF 265.49 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 1010.00 FEET, A CENTRAL ANGLE OF 15 DEGREES 16 MINUTES 41 SECONDS, A LENGTH OF 269.32 FEET AND A CHORD BEARING SOUTH 38 DEGREES 52 MINUTES 58 SECONDS EAST A DISTANCE OF 268.52 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF

250.00 FEET, A CENTRAL ANGLE OF 46 DEGREES 39 MINUTES 20 SECONDS, A LENGTH OF 203.57 FEET AND A CHORD BEARING SOUTH 23 DEGREES 11 MINUTES 38 SECONDS EAST A DISTANCE OF 198.00 FEET; THENCE SOUTH 00 DEGREES 08 MINUTES 02 SECONDS WEST A DISTANCE OF 119.96 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 16 DEGREES 02 MINUTES 55 SECONDS A LENGTH OF 168.06 FEET AND A CHORD BEARING SOUTH 08 DEGREES 09 MINUTES 30 SECONDS WEST A DISTANCE OF 167.51 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE LEFT, CONCAVE EASTERLY, HAVING A RADIUS OF 800.00 FEET, A CENTRAL ANGLE OF 23 DEGREES 37 MINUTES 44 SECONDS, A LENGTH OF 329.92 FEET AND A CHORD BEARING SOUTH 04 DEGREES 22 MINUTES 05 SECONDS WEST A DISTANCE OF 327.59 FEET; THENCE SOUTH 07 DEGREES 26 MINUTES 47 SECONDS EAST A DISTANCE OF 475.59 FEET TO THE CENTERLINE OF AN EXISTING 50 FOOT WIDE ROADWAY AND PUBLIC UTILITY EASEMENT AS RECORDED IN BOOK 2245, AT PAGE 218, OFFICIAL RECORDS OF PLACER COUNTY.

THE SIDELINES OF SAID 50 FOOT WIDE STRIP OF LAND ARE TO BE LENGTHENED OR SHORTENED AS NECESSARY TO TERMINATE AT SAID NORTHERLY BOUNDARY AND THE NORTH BOUNDARY OF SAID EXISTING ROADWAY AND PUBLIC UTILITY EASEMENT.

June 9, 2011

**EXHIBIT 'E-1'**

All that portion of the tract of land shown and designated as Resultant Lot 1 in the Grant Deed recorded in Document No. 2006-0137295, Official Records of Placer County, and all that portion of the tract of land shown and designated as Resultant Lot 2 in the Grant Deed recorded in Document No. 2006-0137296, Official Records of Placer County, located in Section 1, Township 13 North, Range 7 East, M.D.M., Placer County, California, being more particularly described as follows:

Beginning at the southerly most corner of the above described Resultant Lot 1; thence from the Point of Beginning, North 80°35'35" West along the southerly line of said Resultant Lot 1 for a distance of 57.82 feet; thence leaving said southerly line for the following nineteen (19) consecutive courses and distances:

1. North 02°16'01" West for a distance of 217.98 feet,
2. North 05°35'02" East for a distance of 290.51 feet,
3. North 08°05'12" East for a distance of 178.80 feet,
4. along the arc of a tangent curve to the right having a radius of 300.00 feet, a central angle of 34°50'55", a length of 182.47 feet, and a chord bearing North 25°30'40" East for a distance of 179.67 feet,
5. North 47°03'53" West for a distance of 25.00 feet,
6. along the arc of a non-tangent curve to the right having a radius of 325.00 feet, a central angle of 6°22'37", a length of 36.17 feet, and a chord bearing North 46°07'26" East for a distance of 36.15 feet,
7. along the arc of a compound curve having a radius of 1475.00 feet, a central angle of 9°09'13", a length of 235.65 feet, and a chord bearing North 53°53'21" East for a distance of 235.40 feet,
8. along the arc of a compound curve having a radius of 250.00 feet, a central angle of 32°56'15", a length of 143.72 feet, and a chord bearing North 74°56'05" East for a distance of 141.75 feet,
9. along the arc of a compound curve having a radius of 1200.00 feet, a central angle of 8°35'50", a length of 180.06 feet, and a chord bearing South 84°17'53" East for a distance of 179.89 feet,
10. along the arc of a reverse curve having a radius of 100.00 feet, a central angle of 64°16'42", a length of 112.19 feet, and a chord bearing North 67°51'41" East for a distance of 106.40 feet,
11. North 35°43'20" East for a distance of 7.95 feet,
12. along the arc of a tangent curve to the right having a radius of 150.00 feet, a central angle of 15°03'20", a length of 39.42 feet, and a chord bearing North 43°15'00" East for a distance of 39.30 feet,
13. North 50°46'40" East for a distance of 98.86 feet,
14. along the arc of a tangent curve to the left having a radius of 600.00 feet, a central angle of 24°48'28", a length of 259.79 feet, and a chord bearing North 38°22'26" East for a distance of 257.76 feet,

15. North 14°43'33" East for a distance of 157.44 feet,
16. North 10°52'09" East for a distance of 332.74 feet,
17. North 11°52'38" West for a distance of 239.22 feet,
18. North 14°02'31" East for a distance of 179.00 feet and
19. North 54°31'40" East for a distance of 244.68 feet to a point on the northerly line of the above described Resultant Lot 2;

thence North 88°46'36" East along the northerly line of said Resultant Lot 2 for a distance of 88.84 feet; thence leaving said northerly line for the following nineteen (19) consecutive courses and distances:

1. South 54°31'40" West for a distance of 299.68 feet,
2. South 14°02'31" West for a distance of 149.06 feet,
3. South 11°52'38" East for a distance of 237.77 feet,
4. South 10°52'09" West for a distance of 344.48 feet,
5. South 14°43'33" West for a distance of 166.15 feet,
6. South 27°02'55" West for a distance of 166.54 feet,
7. along the arc of a tangent curve to the right having a radius of 200.00 feet, a central angle of 35°34'04", a length of 124.15 feet, and a chord bearing South 44°49'57" West for a distance of 122.17 feet,
8. South 62°36'59" West for a distance of 81.59 feet,
9. along the arc of a tangent curve to the left having a radius of 100.00 feet, a central angle of 26°53'39", a length of 46.94 feet, and a chord bearing South 49°10'09" West for a distance of 46.51 feet,
10. South 35°43'20" West for a distance of 70.33 feet,
11. along the arc of a tangent curve to the right having a radius of 125.00 feet, a central angle of 37°16'56", a length of 81.34 feet, and a chord bearing South 54°21'48" West for a distance of 79.91 feet,
12. along the arc of a compound curve having a radius of 200.00 feet, a central angle of 43°00'20", a length of 150.12 feet, and a chord bearing North 85°29'34" West for a distance of 146.62 feet,
13. along the arc of a reverse curve having a radius of 175.00 feet, a central angle of 57°32'37", a length of 175.76 feet, and a chord bearing South 87°14'17" West for a distance of 168.46 feet,
14. along the arc of a compound curve having a radius of 1400.00 feet, a central angle of 9°09'13", a length of 223.66 feet, and a chord bearing South 53°53'21" West for a distance of 223.43 feet,
15. along the arc of a compound curve having a radius of 250.00 feet, a central angle of 41°13'31", a length of 179.88 feet, and a chord bearing South 28°41'59" West for a distance of 176.02 feet,
16. South 08°05'12" West for a distance of 177.71 feet,
17. South 05°35'02" West for a distance of 286.10 feet,
18. along the arc of a tangent curve to the left having a radius of 50.00 feet, a central angle of 44°02'33", a length of 38.43 feet, and a chord bearing South 16°26'14" East for a distance of 37.50 feet and

19. South 38°27'31" East for a distance of 127.44 feet to a point on the above described southerly line;

thence South 39°33'24" West along said southerly line for a distance of 116.65 feet to the Point of Beginning.

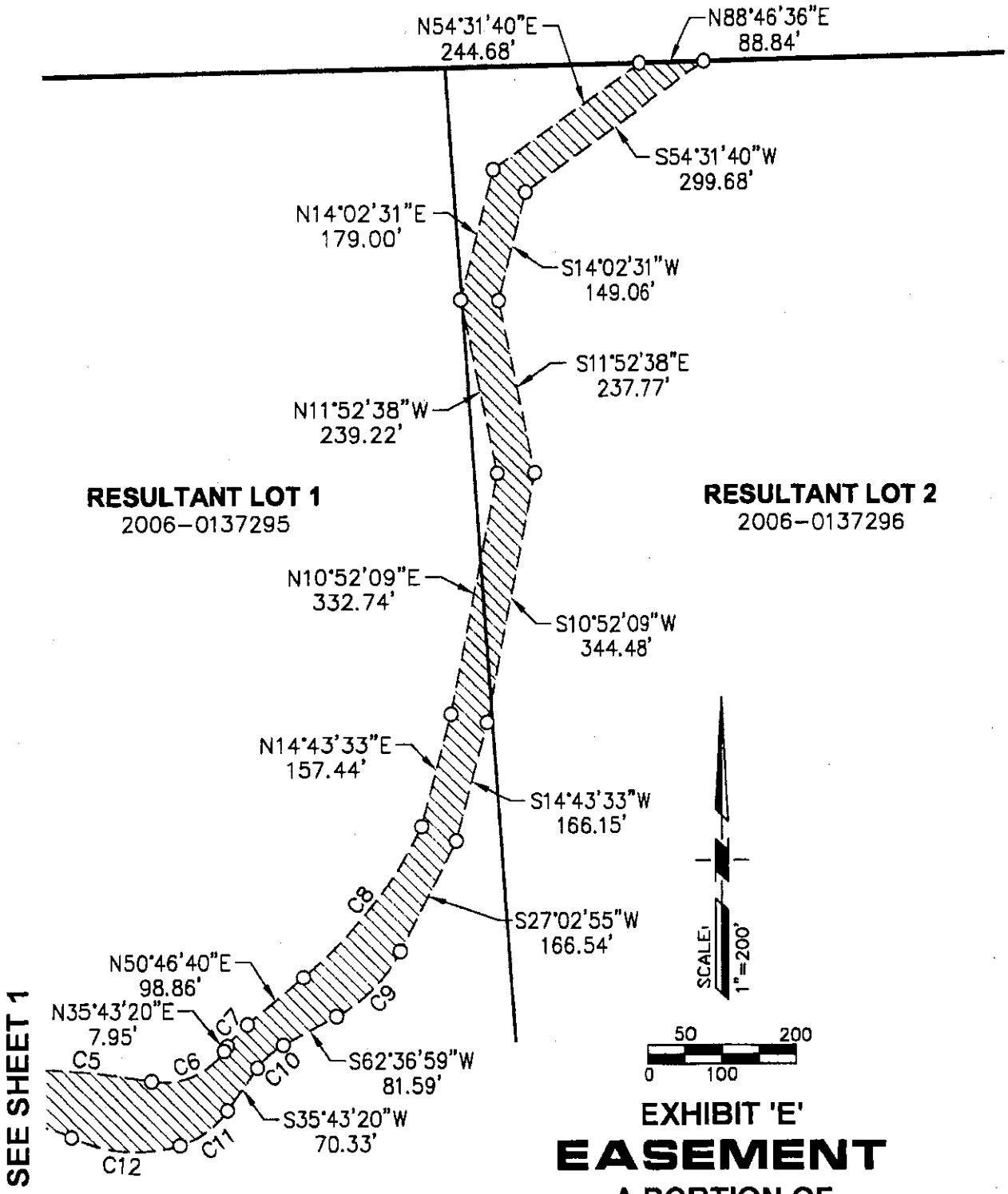
Containing an area of 190,799 square feet (4.38 acres), more or less.

The meridian of this survey is identical to that used for the above described documents.

The above description is shown on Exhibit 'E' attached hereto and made a part hereof.

PROFESSIONAL LAND SURVEYOR
DENNIS GEOFFREY MEYER
LS 4751
EXPIRES SEPT 30, 2011
STATE OF CALIFORNIA

6.13.2011




EASEMENT AREA
AREA: 190,799±SF (4.38±AC)

## NOTE

SEE SHEET 3 FOR LINE AND CURVE TABULATIONS.

# EXHIBIT 'E'

# EASEMENT

## A PORTION OF
## SECTION 1, T.13 N., R.7 E., M.D.M.
## PLACER COUNTY, CALIFORNIA
## SCALE: 1"=200' JUNE 9, 2011

ANDREGG
GEOMATICS
www.andregg.com
800-400-7072

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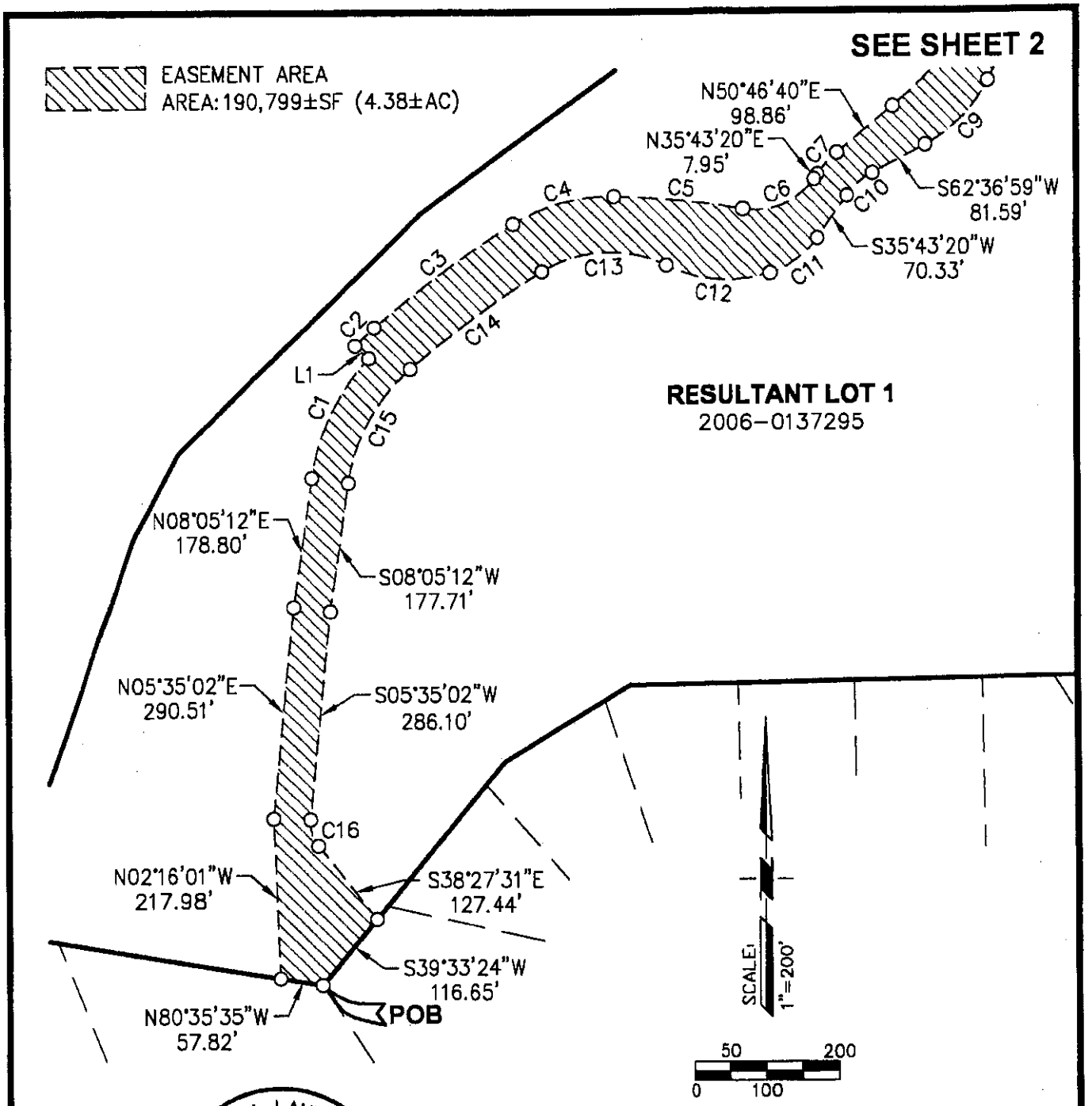


PROFESSIONAL LAND SURVEYOR
DENNIS GEOFFREY MEYER
LS 4751
EXPIRES SEPT 30, 2011
STATE OF CALIFORNIA

6.13.2011

# EXHIBIT 'E'

# EASEMENT

## A PORTION OF SECTION 1, T.13 N., R.7 E., M.D.M. PLACER COUNTY, CALIFORNIA

SCALE: 1"=200' JUNE 9, 2011

**NOTE**

SEE SHEET 3 FOR LINE AND CURVE TABULATIONS.

ANDREGG GEOMATICS
www.andregg.com
800-400-7072

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## CURVE TABULATION

| NO | RADIUS | DELTA | LENGTH | BEARING | DIST |
|---|---|---|---|---|---|
| C1 | 300.00 | 34°50'55" | 182.47' | N25°30'40"E | 179.67' |
| C2 | 325.00 | 6°22'37" | 36.17' | N46°07'26"E | 36.15' |
| C3 | 1475.00 | 9°09'13" | 235.65' | N53°53'21"E | 235.40' |
| C4 | 250.00 | 32°56'15" | 143.72' | N74°56'05"E | 141.75' |
| C5 | 1200.00 | 8°35'50" | 180.06' | S84°17'53"E | 179.89' |
| C6 | 100.00 | 64°16'42" | 112.19' | N67°51'41"E | 106.40' |
| C7 | 150.00 | 15°03'20" | 39.42' | N43°15'00"E | 39.30' |
| C8 | 600.00 | 24°48'28" | 259.79' | N38°22'26"E | 257.76' |
| C9 | 200.00 | 35°34'04" | 124.15' | S44°49'57"W | 122.17' |
| C10 | 100.00 | 26°53'39" | 46.94' | S49°10'09"W | 46.51' |
| C11 | 125.00 | 37°16'56" | 81.34' | S54°21'48"W | 79.91' |
| C12 | 200.00 | 43°00'20" | 150.12' | N85°29'34"W | 146.62' |
| C13 | 175.00 | 57°32'37" | 175.76' | S87°14'17"W | 168.46' |
| C14 | 1400.00 | 9°09'13" | 223.66' | S53°53'21"W | 223.43' |
| C15 | 250.00 | 41°13'31" | 179.88' | S28°41'59"W | 176.02' |
| C16 | 50.00 | 44°02'33" | 38.43' | S16°26'14"E | 37.50' |

## LINE TABULATION

L1 N47°03'53"W 25.00'

EXHIBIT 'E'

# EASEMENT

A PORTION OF

SECTION 1, T.13 N., R.7 E., M.D.M.

PLACER COUNTY, CALIFORNIA

JUNE 9, 2011

ANDREGG GEOMATICS

www.andregg.com

800-400-7072

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SHEET 3 OF 3

RECORDING REQUESTED
BY
PLACER TITLE COMPANY
# 102-39767 DY

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

PLACER, County Recorder
JIM MCCAULEY
DOC- 2010-0106121-00
PLACER TITLE - RECORDING
TUESDAY, DEC 21, 2010 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $0.00 | AUT | $0.00 | SBS | $0.00 |
| ERD | $0.00 | RED | $0.00 | * | $0.00 |
| ADD | $0.00 | | | | |

Ttl Pd $0.00 Rcpt # 02095007
clkgh1mfj1/GV/1-9

# COUNTY OF PLACER
# ASSIGNMENT OF EASEMENT

APN(s): 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, 026-061-068, 026-370-039, 026-061-006, 026-061-005, 026-061-004, 026-061-009, 026-370-040, 026-370-019, and 026-370-018

For the receipt of one dollar ($1.00) or other good and valuable consideration, The Trust for Public Land, a California non-profit public benefit corporation, the undersigned Grantor, hereby assigns and grants to the County of Placer, State of California ("Grantee"), Grantor's right, title and interest in that certain forty (40) foot non-exclusive appurtenant public road easement indentified as "Easement 3" in the Reciprocal Easement Agreement between Harvego Real Estate LLC, a California limited liability company, ("Harvego") and Grantor dated December 16th, 2010 and recorded concurrently herewith in the Official Records of Placer County ("REA"), which Easement 3 is more particularly described on Exhibits E and E-1 attached hereto, reserving therefrom Grantor's non-exclusive right to use Easement 3 as described in the REA. The rights assigned and granted to Grantee herein include, without limitation, the right to use Easement 3 for public road purposes and incidentals thereto.

Any and all interest conveyed by Grantor to Grantee pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the Grantor.

Dated this 16th day of December, 2010.

GRANTOR
The Trust for Public Land
a California non-profit public benefit

By: [signature]
Sign name

JOHN PARRIS CONSULTANT
Print name and title

See Following Page for Acknowledgement

Revised 12/10

# ACKNOWLEDGMENT

State of California
County of San Francisco

On Dec 16, 2010 before me, Hsiao Wen Shih, **Notary Public** personally appeared John Pardee, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity, and that by his/~~her/their~~ signature(~~s~~) on the instrument the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

HSIAO-WEN SHIH
Commission # 1840657
Notary Public - California
San Francisco County
My Comm. Expires Mar 16, 2013

**GOVERNMENT** CODE 27361.7
I certify under penalty of perjury that the notary seal reads as follows:
Name of Notary Hsiao-Wen Shih
Date Commission Expires 3-16-13 Commission # 1840657
County of Commission San Francisco Mfg. ID. # NNA
State of Commission California
Signature Placer Title Co.
(Firm name, if any)

12-21-10 Auburn, CA

# ACKNOWLEDGEMENT

State of California
County of Placer

On _____ before me,
_____(name, title),
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal) _____ Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)
  _____ TITLE(S)
  _____ COMPANY
- ☐ PARTNER(S)
  _____ PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  _____ PRINCIPAL(S)
- ☐ TRUSTEE(S)
  _____ TRUST
- ☐ OTHER
  _____ TITLE(S)
  _____ ENTITY(IES) REPRESENTATIVE

## COUNTY OF PLACER ACCEPTANCE

This is to certify that the interest in real property conveyed by the Assignment of Easement dated December 16, 2010, from The Trust for Public Land to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution 2010-346 adopted December 14, 2010, and the Grantee consents to the recordation thereof by its duly authorized agent.

| | |
|---|---|
| 12/17/10 | |
| DATE | SIGN NAME |
| | James Durfee, Director |
| | PRINT NAME AND TITLE |

## EXHIBIT "E"

All that portion of the following described strip of land lying within Parcel Six and Parcel Nine, described in the Grant Deed to Harvego Real Estate LLC, recorded as Document Number 1999-0107274, Official Records of Placer County, situated in Section 1 and Section 2, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, said strip being more particularly described as follows:

A forty (40.00) foot wide strip of land lying twenty (20.00) feet on either side of the following described centerline:

Beginning at a point on the westerly boundary of the Auburn Valley Subdivision Unit No. 1, filed in Book G of Maps, at Page 21, Official Records Placer County, being also the center of the sixty (60.00) foot right of way of Auburn Valley Road from which, a ½ inch rebar tagged LS 2515 marking the westernmost corner of Lot 30 as shown on said map bears South 53°09'46" East, 30.00 feet; thence from said point of beginning, leaving said westerly boundary, along the center of the existing roadway, the following 69 courses and distances;

1. South 36°50'14" West, 41.54 feet;
2. Along the arc of a 500.00 foot radius curve to the left, through a central angle of 27°50'22" for a distance of 242.95 feet (Chord: South 22°55'03" West, 240.56 feet);
3. South 08°59'51" West, 124.62 feet;
4. Along the arc of a 75.00 foot radius curve to the right, through a central angle of 64°58'49" for a distance of 85.06 feet (Chord: South 41°29'16" West, 80.57 feet);
5. South 73°58'40" West, 113.90 feet;
6. Along the arc of a 200.00 foot radius curve to the right, through a central angle of 17°22'39" for a distance of 60.66 feet (Chord: South 82°40'00" West, 60.43 feet);
7. North 88°38'41" West, 279.35 feet;
8. North 26°48'56" West, 16.24 feet;
9. Along the arc of a 150.00 foot radius curve to the left, through a central angle of 28°50'01" for a distance of 75.49 feet (Chord: North 41°13'57" West, 74.69 feet);
10. North 55°38'57" West, 167.71 feet;
11. Along the arc of a 250.00 foot radius curve to the right, through a central angle of 29°11'32" for a distance of 127.37 feet (Chord: North 41°03'12" West, 126.00 feet);
12. North 26°27'26" West, 128.28 feet;
13. Along the arc of a 50.00 foot radius curve to the left, through a central angle of 82°50'08" for a distance of 72.29 feet (Chord: North 67°52'30" West, 66.16 feet);
14. South 70°42'26" West, 84.28 feet;

15. Along the arc of a 300.00 foot radius curve to the left, through a central angle of 14°14'54" for a distance of 74.60 feet (Chord: South 63°34'59" West, 74.41 feet);
16. South 56°27'32" West, 266.32 feet;
17. Along the arc of a 300.00 foot radius curve to the left, through a central angle of 20°26'35" for a distance of 107.04 feet (Chord: South 46°14'15" West, 106.47 feet);
18. South 36°00'57" West, 164.27 feet;
19. Along the arc of a 250.00 foot radius curve to the right, through a central angle of 13°42'32" for a distance of 59.82 feet (Chord: South 42°52'13" West, 59.67 feet);
20. Along the arc of a 1000.00 foot radius curve to the left, through a central angle of 12°23'11" for a distance of 216.19 feet (Chord: South 43°31'53" West, 215.77 feet);
21. South 37°20'17" West, 251.95 feet;
22. Along the arc of an 800.00 foot radius curve to the right, through a central angle of 30°52'20" for a distance of 431.06 feet (Chord: South 52°46'27" West, 425.86 feet);
23. South 68°12'37" West, 237.52 feet;
24. Along the arc of a 450.00 foot radius curve to the right, through a central angle of 33°58'12" for a distance of 266.80 feet (Chord: South 85°11'43" West, 262.91 feet);
25. North 77°49'11" West, 626.70 feet;
26. Along the arc of a 200.00 foot radius curve to the right, through a central angle of 12°31'59" for a distance of 43.75 feet (Chord: North 71°33'11" West, 43.66 feet);
27. Along the arc of a 200.00 foot radius curve to the left, through a central angle of 71°27'14" for a distance of 249.42 feet (Chord: South 78°59'11" West, 233.57 feet);
28. South 43°15'34" West, 101.22 feet;
29. Along the arc of a 200.00 foot radius curve to the right, through a central angle of 29°46'34" for a distance of 103.94 feet (Chord: South 58°08'52" West, 102.77 feet);
30. South 73°02'08" West, 170.35 feet;
31. Along the arc of a 2000.00 foot radius curve to the right, through a central angle of 03°28'35" for a distance of 121.35 feet (Chord: South 74°46'26" West, 121.32 feet);
32. South 76°30'43" West, 187.35 feet;
33. Along the arc of a 200.00 foot radius curve to the right, through a central angle of 86°13'18" for a distance of 300.97 feet (Chord: North 60°22'39" West, 273.36 feet);
34. Along the arc of a 200.00 foot radius curve to the left, through a central angle of 16°33'49" for a distance of 57.82 feet (Chord: North 25°32'54" West, 57.61 feet);

35. North 33°49'48" West, 345.56 feet;
36. Along the arc of a 125.00 foot radius curve to the left, through a central angle of 76°42'40" for a distance of 167.36 feet (Chord: North 72°11'08" West, 155.14 feet);
37. South 69°27'31'West, 122.66 feet;
38. Along the arc of a 300.00 foot radius curve to the right, through a central angle of 12°26'33" for a distance of 65.15 feet (Chord: South 75°40'48" West, 65.02 feet);
39. South 81°54'05" West, 26.42 feet;
40. Along the arc of a 300.00 foot radius curve to the left, through a central angle of 12°11'27" for a distance of 63.83 feet (Chord: South 75°48''21" West, 63.71 feet);
41. Along the arc of a 300.00 foot radius curve to the right, through a central angle of 27°57'20" for a distance of 146.37 feet (Chord: South 83°41'18" West, 144.93 feet);
42. Along the arc of a 50.00 foot radius curve to the left, through a central angle of 74°58'11" for a distance of 65.42 feet (Chord: South 60°10'52" West, 60.86 feet);
43. South 22°41'46" West, 47.63 feet;
44. Along the arc of a 75.00 foot radius curve to the left, through a central angle of 60°39'22" for a distance of 79.40 feet (Chord: South 07°37'55" East, 75.74 feet);
45. South 37°57'35" East, 39.35 feet;
46. Along the arc of a 75.00 foot radius curve to the right, through a central angle of 17°05'22" for a distance of 22.37 feet (Chord: South 29°24'54" East, 22.29 feet);
47. South 20°52'13" East, 257.51 feet;
48. Along the arc of a 200.00 foot radius curve to the left, through a central angle of 29°43'06" for a distance of 103.74 feet (Chord: North 35°43'46" East, 102.58 feet);
49. South 50°35'19" East, 113.67 feet;
50. Along the arc of a 100.00 foot radius curve to the right, through a central angle of 41°38'55" for a distance of 72.69 feet (Chord: South 29°45'51" East, 71.10 feet);
51. South 08°56'24" East, 180.65 feet;
52. Along the arc of a 175.00 foot radius curve to the right, through a central angle of 40°22'23" for a distance of 123.31 feet (Chord: South 11°14'47" West, 120.78 feet);
53. South 31°26'00" West, 45.92 feet;
54. Along the arc of a 75.00 foot radius curve to the right, through a central angle of 66°46'40" for a distance of 87.41 feet (Chord: South 64°49'20" West, 82.55 feet);
55. North 81°47'20" West, 73.64 feet;

56. Along the arc of a 200.00 foot radius curve to the right, through a central angle of 13°45'57" for a distance of 48.05 feet (Chord: North 74°54'22" West, 47.941 feet);
57. North 68°01'23" West, 672.75 feet;
58. Along the arc of a 100.00 foot radius curve to the right, through a central angle of 27°39'29" for a distance of 48.27 feet (Chord: North 54°11'38" West, 47.81 feet);
59. North 40°21'54" West, 26.10 feet;
60. Along the arc of a 100.00 foot radius curve to the left, through a central angle of 18°55'07" for a distance of 33.02 feet (Chord: North 49°49'28" West, 32.87 feet);
61. North 59°17'01"West, 112.24 feet;
62. Along the arc of a 1000.00 foot radius curve to the right, through a central angle of 07°47'45" for a distance of 136.06 feet (Chord: North 55°23'09" West, 135.96 feet);
63. North 51°29'16" West, 72.07 feet;
64. Along the arc of a 500.00 foot radius curve to the left, through a central angle of 06°17'21" for a distance of 54.88 feet (Chord: North 54°37'57" West, 54.86 feet);
65. North 57°46'37" West, 333.17 feet;
66. Along the arc of a 500.00 foot radius curve to the right, through a central angle of 18°03'27" for a distance of 157.58 feet (Chord: North 48°44'54" West, 156.93 feet);
67. North 39°43'10" West, 109.25 feet;
68. Along the arc of a 500.00 foot radius curve to the left, through a central angle of 18°54'16" for a distance of 164.97 feet (Chord: North 49°10'18" West, 164.22 feet); and
69. North 58°37'26" West 125 feet more or less to the west line of said Section 2, being the point of termination.

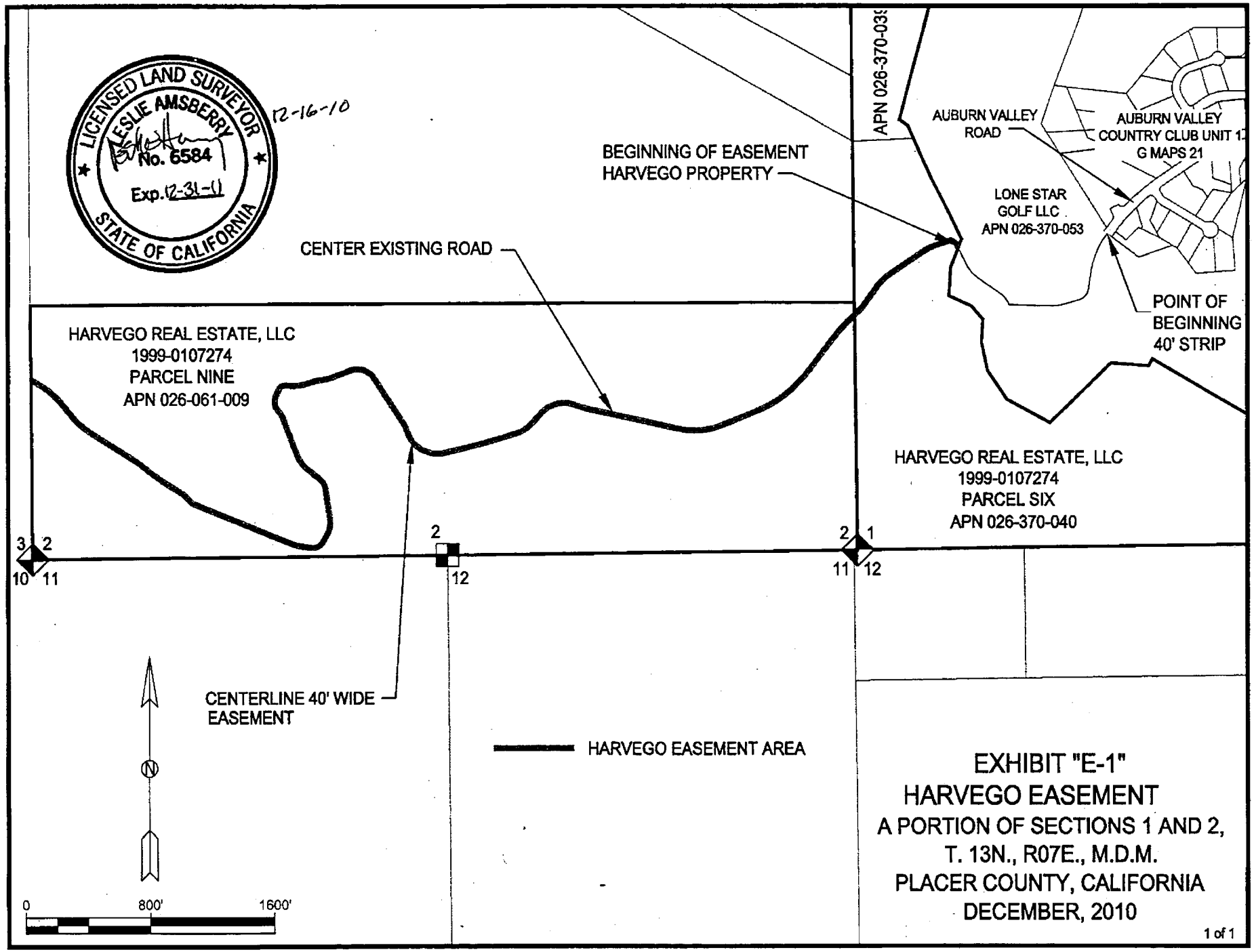
The sidelines of said strip are to be prolonged or shortened to terminate easterly on the westerly boundary of said Auburn Valley Subdivision Unit 1, and to terminate westerly on the west line of said Section 2.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-11
Date: 12-16-10


LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-11
STATE OF CALIFORNIA
12-16-10
BEGINNING OF EASEMENT
HARVEGO PROPERTY
APN 026-370-03
AUBURN VALLEY ROAD
AUBURN VALLEY COUNTRY CLUB UNIT 1
G MAPS 21
LONE STAR GOLF LLC
APN 026-370-053
CENTER EXISTING ROAD
POINT OF BEGINNING 40' STRIP
HARVEGO REAL ESTATE, LLC
1999-0107274
PARCEL NINE
APN 026-061-009
HARVEGO REAL ESTATE, LLC
1999-0107274
PARCEL SIX
APN 026-370-040
3 2
10 11
2
12
2 1
11 12
CENTERLINE 40' WIDE EASEMENT
N
HARVEGO EASEMENT AREA
0
800'
1600'
EXHIBIT "E-1"
HARVEGO EASEMENT
A PORTION OF SECTIONS 1 AND 2,
T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA
DECEMBER, 2010
1 of 1

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

# 102 54767 D Y

PLACER, County Recorder
JIM MCCAULEY
DOC- 2010-0106122-00
PLACER TITLE - RECORDING
TUESDAY, DEC 21, 2010 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $0.00 | AUT | $0.00 | SBS | $0.00 |
| ERD | $0.00 | RED | $0.00 | * | $0.00 |
| ADD | $0.00 | | | | |

Ttl Pd $0.00 Rcpt # 02095007
clkghlmfjl/GV/1-6

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

## COUNTY OF PLACER
## ASSIGNMENT OF EASEMENT

APN(s): 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, 026-061-068, 026-370-039, 026-061-006, 026-061-005, 026-061-004, 026-061-009, 026-370-040, 026-370-019, and 026-370-018

For the receipt of one dollar ($1.00) or other good and valuable consideration,
The Trust for Public Land, a California non-profit public benefit corporation,
the undersigned Grantor, hereby assigns and grants to the County of Placer, State of California ("Grantee"), Grantor's right, title and interest in that certain one-hundred (100) foot non-exclusive appurtenant public trail easement indentified as "Easement 4" in the Reciprocal Easement Agreement between Harvego Real Estate LLC, a California limited liability company, ("Harvego") and Grantor dated December 16th, 2010 and recorded concurrently herewith in the Official Records of Placer County ("REA"), which Easement 4 is more particularly described on Exhibits F and F-1 attached hereto, reserving therefrom Grantor's non-exclusive right to use Easement 4 as described in the REA. The rights assigned and granted to Grantee herein include, without limitation, the right to use Easement 4 for public non-motorized trail purposes and incidentals thereto. By accepting this instrument, Grantee acknowledges its obligation to quitclaim to the underlying fee owner at the time of quitclaim all but a fifteen (15) foot width of Easement 4 once the trail is located as described in the REA.

Any and all interest conveyed by Grantor to Grantee pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the Grantor.

Dated this 16th day of December, 2010.

GRANTOR
The Trust for Public Land
a California non-profit public benefit

By: [signature]
Sign Name

JOHN PARKER, COUNSEL
Print Name and Title

See Following Page for Acknowledgement

Revised 12/10

# ACKNOWLEDGMENT

State of California
County of San Francisco

On Dec 16, 2010 before me, Hsiao-Wen Shih, **Notary Public** personally appeared John Parlee, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/h~~er/thei~~r authorized capacity, and that by his/~~her/their~~ signature(~~s~~) on the instrument the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

HSIAO-WEN SHIH
Commission # 1840657
Notary Public - California
San Francisco County
My Comm. Expires Mar 16, 2013

# ACKNOWLEDGEMENT

State of California
County of Placer

On _____ before me,
_____(name, title),
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal) Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)
  _____ TITLE(S)
  _____ COMPANY
- ☐ PARTNER(S)
  _____ PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  _____ PRINCIPAL(S)
- ☐ TRUSTEE(S)
  _____ TRUST
- ☐ OTHER
  _____ TITLE(S)
  _____ ENTITY(IES) REPRESENTATIVE

## COUNTY OF PLACER ACCEPTANCE

This is to certify that the interest in real property conveyed by the Assignment of Easement dated December 16, 2010, from The Trust for Public Land to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution 2010-346 adopted December 14, 2010, and the Grantee consents to the recordation thereof by its duly authorized agent.

| | |
|---|---|
| 12/17/10 | |
| DATE | SIGN NAME |
| | James Durfee, Director |
| | PRINT NAME AND TITLE |

**EXHIBIT "F"**

A portion of Parcel Nine, described in the Grant Deed to Harvego Real Estate LLC, recorded as Document Number 1999-0107274, Official Records of Placer County, situated in Section 2, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, described as follows:

A one hundred (100.00) foot wide strip of land lying fifty (50.00) feet on either side of the following described centerline:

Beginning at a point on the south line of said Section 2 from which, a 1 ½ inch capped iron pipe stamped LS 2515 marking the south quarter corner of said Section 2 bears South 89°11'52" West, 37.74 feet; thence from said point of beginning, leaving said south line along the following nineteen (19) courses and distances:

1. North 41°22'43" West, 2.04 feet;
2. Along the arc of a 100.00 foot radius curve to the left, through a central angle of 30°16'59" for 52.85 feet (Chord: North 56°31'12" West, 52.24 feet);
3. Along the arc of a 300.00 foot radius curve to the right, through a central angle of 10°35'26" for 55.45 feet (Chord: North 66°21'59" West, 55.37 feet);
4. North 61°04'16" West, 38.03 feet;
5. Along the arc of a 300.00 foot radius curve to the left, through a central angle of 7°10'53" for 37.60 feet (Chord: North 64°39'43" West, 37.58 feet);
6. North 68°15'09" West, 36.31 feet;
7. Along the arc of a 250.00 foot radius curve to the right, through a central angle of 14°50'27" for 64.76 feet (Chord: North 60°49'56" West, 64.57 feet);
8. North 53°24'42" West, 103.07 feet;
9. Along the arc of a 250.00 foot radius curve to the left, through a central angle of 9°50'29" for 42.94 feet (Chord: North 58°19'57" West, 42.89 feet);
10. North 63°15'11" West, 24.08 feet;
11. Along the arc of a 250.00 foot radius curve to the right, through a central angle of 18°45'53" for 81.88 feet (Chord: North 53°52'15" West, 81.51 feet);
12. North 44°29'18" West, 164.18 feet;
13. Along the arc of a 100.00 foot radius curve to the right, through a central angle of 22°08'43" for 38.65 feet (Chord: North 33°24'57" West, 38.41 feet);
14. North 22°20'35" West, 136.80 feet;
15. Along the arc of a 100.00 foot radius curve to the right, through a central angle of 24°23'44" for 42.58 feet (Chord: North 10°08'43" West, 42.26 feet);
16. Along the arc of a 25.00 foot radius curve to the left, through a central angle of 105°48'49" for 46.17 feet (Chord: North 50°51'16" West, 39.88 feet);
17. South 76°14'19" West, 35.02 feet;
18. Along the arc of a 300.00 foot radius curve to the left, through a central angle of 12°51'32" for 67.33 feet (Chord: South 69°48'33" West, 67.19 feet); and
19. South 63°22'47" West, 120.99 feet more or less to a point on the centerline of an existing road, being the point of termination.

The sidelines of said strip are to be prolonged or shortened to terminate southerly on the south line of said Section 2, and to terminate northerly on the centerline of an existing road.

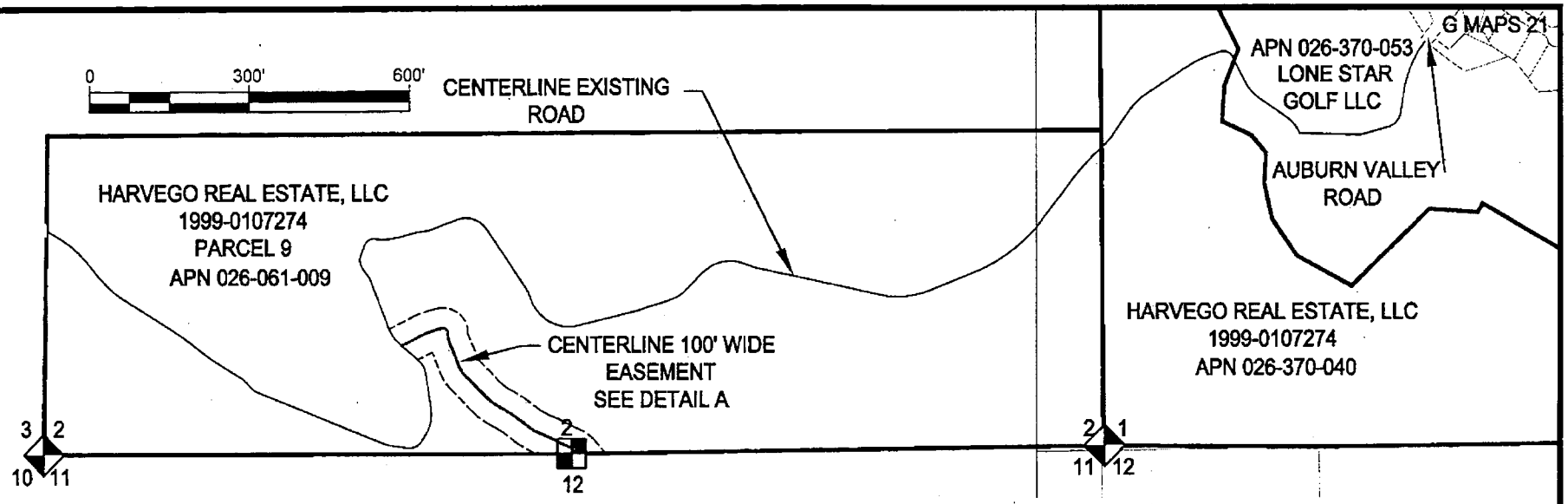
End of description

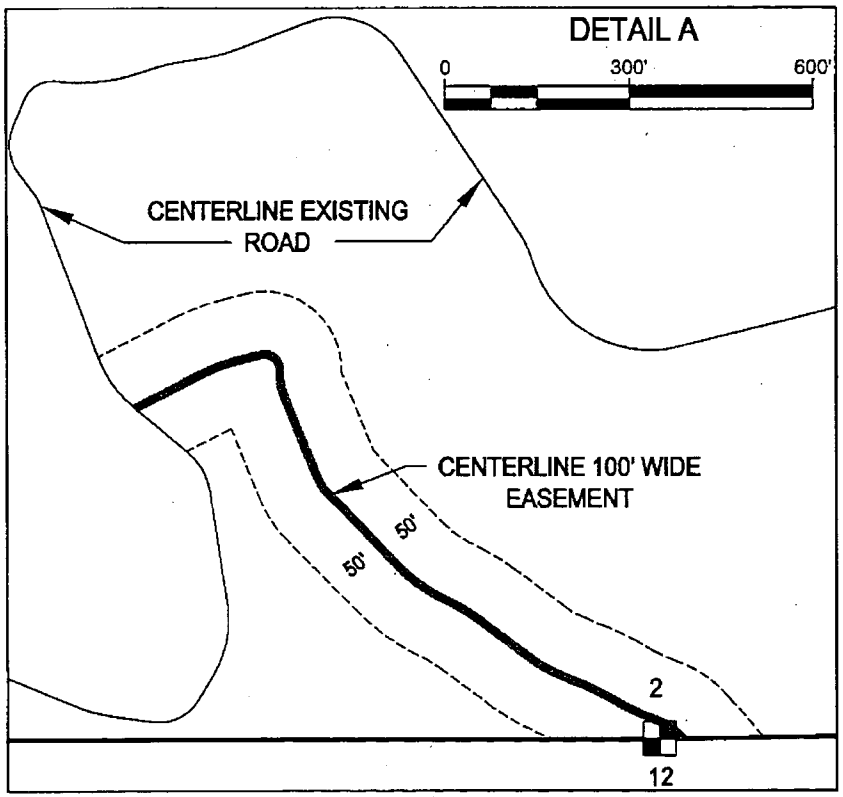
Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

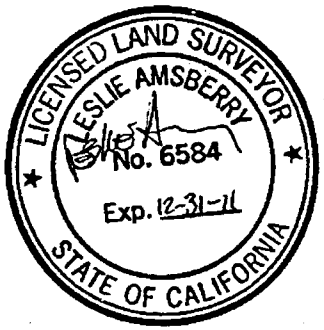
Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-11
Date: 12-16-10

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-11
STATE OF CALIFORNIA



HARVEGO EASEMENT




12-16-10

# EXHIBIT "F-1"
# HARVEGO EASEMENT
## A PORTION OF SECTION 2 , T. 13N., R07E., M.D.M.
## PLACER COUNTY, CALIFORNIA
## DECEMBER, 2010

RECORDING REQUESTED
BY
PLACER TITLE COMPANY
#102-34767 DY

PLACER, County Recorder
JIM MCCAULEY
DOC- 2010-0106123-00
PLACER TITLE - RECORDING
TUESDAY, DEC 21, 2010 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $0.00 | AUT | $0.00 | SBS | $0.00 |
| ERD | $0.00 | RED | $0.00 | * | $0.00 |
| ADD | $0.00 | | | | |

Ttl Pd $0.00 Rcpt # 02095007
clkgh1mfj1/GV/1-5

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

## COUNTY OF PLACER
## ASSIGNMENT OF EASEMENT

APN(s): 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, 026-061-068, 026-370-039, 026-061-006, 026-061-005, 026-061-004, 026-061-009, 026-370-040, 026-370-019, and 026-370-018

For the receipt of one dollar ($1.00) or other good and valuable consideration,
The Trust for Public Land, a California non-profit public benefit corporation,
the undersigned Grantor, hereby assigns and grants to the County of Placer, State of California ("Grantee"), Grantor's right, title and interest in that certain one-hundred (100) foot non-exclusive appurtenant public trail easement indentified as "Easement 5" in the Reciprocal Easement Agreement between Harvego Real Estate LLC, a California limited liability company, ("Harvego") and Grantor dated December 16th, 2010 and recorded concurrently herewith in the Official Records of Placer County ("REA"), which Easement 5 is more particularly described on Exhibits G and G-1 attached hereto, reserving therefrom Grantor's non-exclusive right to use Easement 5 as described in the REA. The rights assigned and granted to Grantee herein include, without limitation, the right to use Easement 5 for public non-motorized trail purposes and incidentals thereto. By accepting this instrument, Grantee acknowledges its obligation to quitclaim to the underlying fee owner at the time of quitclaim all but a fifteen (15) foot width of Easement 5 once the trail is located as described in the REA.

Any and all interest conveyed by Grantor to Grantee pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the Grantor.

Dated this 16th day of December, 2010.

GRANTOR
The Trust for Public Land
a California non-profit public benefit

By: John Parente
Sign name

JOHN PARENTE, COUNSEL
Print name and title

See Following Page for Acknowledgement

Revised 12/10

# ACKNOWLEDGMENT

State of California
County of San Francisco

On Dec 16, 2010 before me, Hsiao-Wen Shih, **Notary Public** personally appeared John Pardee, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity, and that by his/~~her/their~~ signature(~~s~~) on the instrument the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

HSIAO-WEN SHIH
Commission # 1840657
Notary Public - California
San Francisco County
My Comm. Expires Mar 16, 2013

# ACKNOWLEDGEMENT

State of California
County of Placer

On _____ before me,
_____(name, title),
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal) _____ Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)
  _____ TITLE(S)
  _____ COMPANY
- ☐ PARTNER(S)
  _____ PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  _____ PRINCIPAL(S)
- ☐ TRUSTEE(S)
  _____ TRUST
- ☐ OTHER
  _____ TITLE(S)
  _____ ENTITY(IES) REPRESENTATIVE

## COUNTY OF PLACER ACCEPTANCE

This is to certify that the interest in real property conveyed by the Assignment of Easement dated December 16, 2010, from The Trust for Public Land to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution 2010-346 adopted December 14, 2010, and the Grantee consents to the recordation thereof by its duly authorized agent.

| | |
|---|---|
| 12/17/10<br>DATE | SIGN NAME |
| | James Durfee, Director<br>PRINT NAME AND TITLE |

Revised 12/10

## EXHIBIT "G"

A portion of Parcel Four, described in the Grant Deed to Harvego Real Estate LLC, recorded as Document Number 1999-0107274, Official Records of Placer County, situated in Section 2, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, described as follows:

Beginning at the northwest corner of said Section 2; thence from said point of beginning, along the North line of said Section 2 East, 141.42 feet; thence leaving said North line South 45°00'00" West, 200 feet more or less, to a point on the West line of said Section 2 that bears South, 141.42 feet from the point of beginning; thence along said West line North, 141.42 feet to the point of beginning, containing 0.23 acres, more or less.

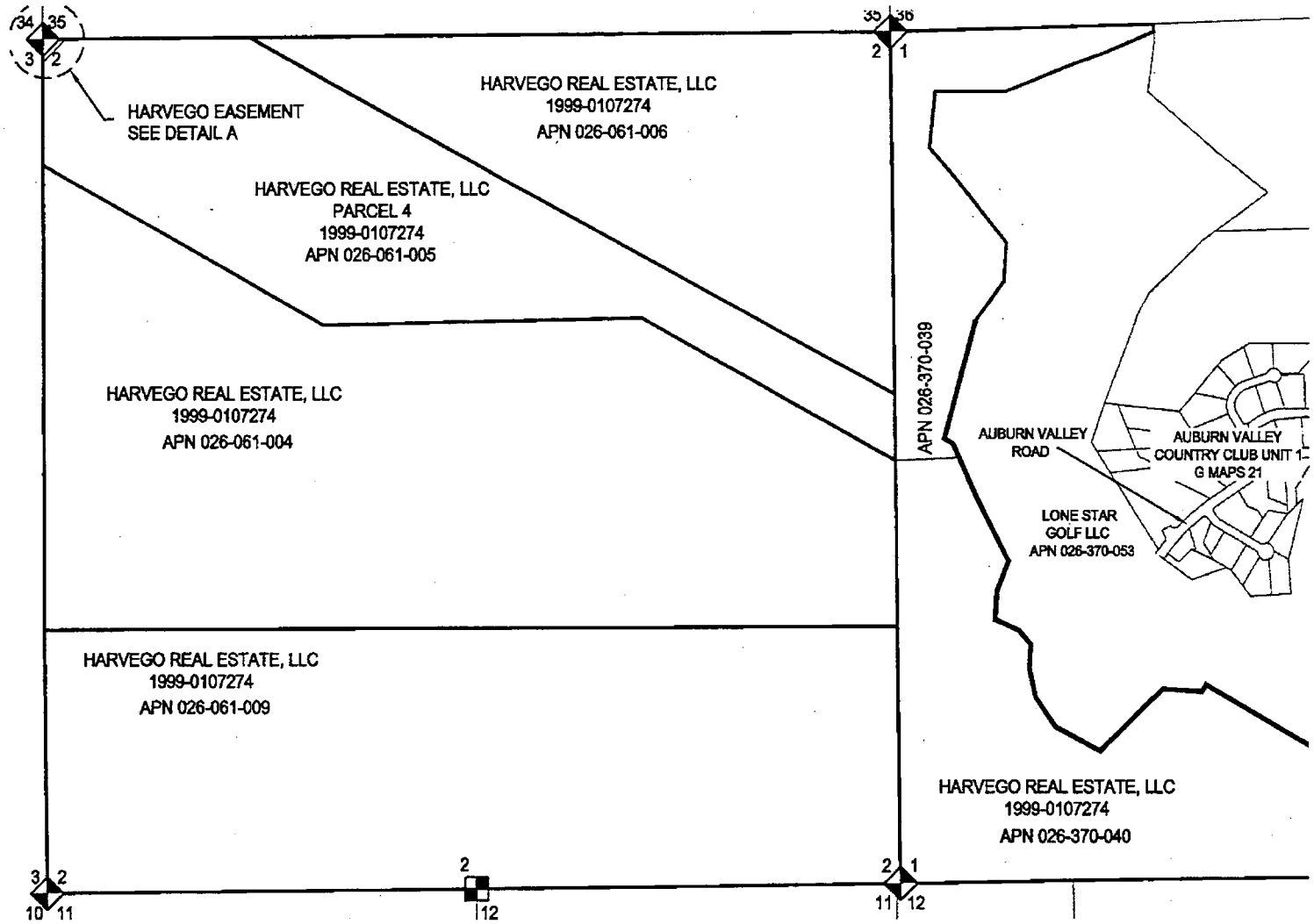
End of description

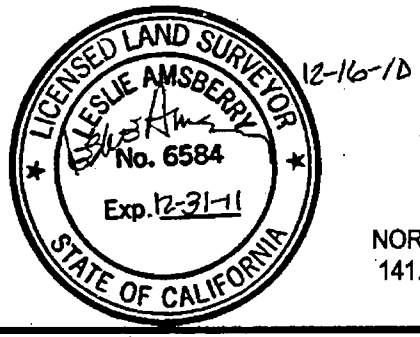
Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-11
STATE OF CALIFORNIA

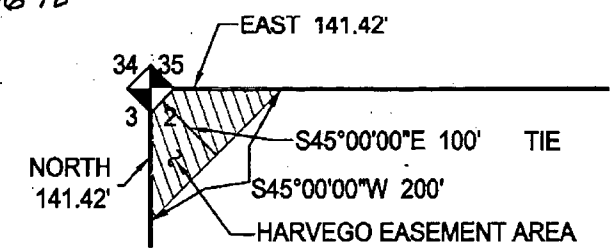
Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-11
Date: 12-16-10




12-16-10

DETAIL A
NO SCALE




# EXHIBIT "G-1"
# HARVEGO EASEMENT
## A PORTION OF SECTION 2,
## T. 13N., R07E., M.D.M.
## PLACER COUNTY, CALIFORNIA
## DECEMBER, 2010

RECORDING REQUESTED BY

PLACER TITLE COMPANY

WHEN RECORDED MAIL TO:
Harvego Real Estate LLC`
2377 Gold Meadow Way, Suite 160
Gold River, CA 95670

Escrow No. 102-35120- MS AND 102-4902 MS

PLACER, County Recorder
JIM MCCAULEY
DOC- 2011-0045642-00
PLACER TITLE - RECORDING
TUESDAY, JUN 14, 2011 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $3.00 | AUT | $2.00 | SBS | $1.00 |
| ERD | $1.00 | RED | $1.00 | REC | $10.00 |
| ADD | $0.00 | | | | |

Ttl Pd $18.00 Rcpt # 02126333
clkhlmlfj1/ST/1-2

A.P.N.: 26-370-043, 044, 045, 046, 047 & 048

Space Above This Line for Recorder's Use

# QUITCLAIM DEED

The undersigned grantor(s) declare(s):
Documentary Transfer Tax is -0-

() Computed on full value of property conveyed, or
() Computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
COUNTY OF PLACER, A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA

does hereby remise, release and forever quitclaim to

PETER M. CASWELL AND JACQUELINE F. CASWELL, TRUSTEES OF
THE PETER & JACQUELINE CASWELL TRUST DATED NOVEMBER 11, 1998 AND
HAVEGO REAL ESTATE, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

the following described Real Property:

THE LAND SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, CONSISTING OF THAT PORTION OF THE EASEMENT DESCRIBED IN PAGES 1 AND 2 OF EXHIBIT A OF THAT DOCUMENT RECORDED APRIL 6, 2000, AS DOCUMENT NO. 2000-0023218, PLACER COUNTY OFFICIAL RECORDS, LYING WITHIN RESULTANT PARCELS 1, 2, AND 3 DESCRIBED IN THE MINOR BOUNDARY LINE ADJUSTMENT, MBR-20060582 RECORDED DECEMBER 22, 2006 AS DOCUMENT NO. 2006-0137294, PLACER COUNTY OFFICIAL RECORDS.

Dated: June 06, 2011

COUNTY OF PLACER
A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA

BY: _____
JAMES W. DURFEE

STATE OF CALIFORNIA, ) ss.
COUNTY OF PLACER )

On 6-13-11 before me, DEBORAH K. YUE, Notary Public, personally

appeared JAMES W. DURFEE------

_____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Deborah K. Yue
Deborah K. Yue

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

2

RECORDING REQUESTED
BY
PLACER TITLE COMPANY
IV 102-34767 DY

RECORDING REQUESTED BY:
Trust for Public Land
101 Montgomery Street, Suite 900
San Francisco, CA 94104

MAIL TO:
County of Placer
Department of Facility Services
ATTN: Property Manager
11476 C Avenue
Auburn CA 95603

PLACER, County Recorder
JIM MCCAULEY
DOC- 2010-0106120-00
PLACER TITLE - RECORDING
TUESDAY, DEC 21, 2010 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $0.00 | AUT | $0.00 | SBS | $0.00 |
| ERD | $0.00 | RED | $0.00 | * | $0.00 |
| ADD | $0.00 | | | | |

Ttl Pd $0.00 Rcpt # 02095007
clkghlmfj1/GV/1-36

# Deed of Conservation Easement

THIS DEED OF CONSERVATION EASEMENT (the "Easement") is made by The Trust for Public Land, a California non-profit public benefit corporation ("Grantor"), in favor of the County of Placer, a political subdivision of the State of California ("Grantee"). Grantor and Grantee are sometimes hereinafter each singularly referred to as "Party" and collectively referred to as the "Parties."

## RECITALS

WHEREAS, Grantor is the sole owner in fee simple of certain real property in Placer County, California, more particularly described in Exhibit A-1 and depicted on A-2 attached hereto and incorporated herein by this reference (the "Property"); and

WHEREAS, the Property is comprised of Assessor Parcel Nos. 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, 026-061-068, which totals approximately One Thousand Seven Hundred Seventy-Three (1,773) acres in size, and is zoned Farm combining a Building Site minimum site size of 160 acres (F-B-X-160 acres), and has a General Plan designation of Agriculture 80 acre minimum; and

WHEREAS, the Property possesses conservation values including natural, habitat, wildlife, recreational, agricultural, scenic, open space and cultural values of great importance to Grantee, the people of Placer County and the people of the State of California; and

WHEREAS, the Grantor desires to convey to Grantee this Easement; and

WHEREAS, Grantor intends, as owner of the Property, to convey the right to assure that the aforementioned values of the Property are preserved and protected in perpetuity, subject to the terms of this Easement; and

WHEREAS, Grantee is a governmental entity identified in Civil Code Section 815.3(b) and otherwise authorized to acquire and hold title to real property pursuant to Civil Code Sections 815 et. seq. and other provisions of California law;

## AGREEMENT

NOW, THEREFORE, for good and valuable consideration, and in consideration of the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the State of California including Sections 815-816 of the Civil Code, Grantor does hereby deed and convey to Grantee this Easement in perpetuity over the Property of the nature and character and to the extent hereinafter set forth. Grantor also conveys to Grantee all development rights associated with the Property except as hereinafter described.

## COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

1. Purposes of Easement. The purposes of this Easement are to ensure that the Property will be retained in its predominantly natural condition; to preserve, protect, and maintain, in perpetuity the Protected Values of the Property as defined in Section 2, below, except as allowed by this Easement; and to prevent any use of the Property that will impair or interfere with its Protected Values, or impair the ability of the Grantee to achieve specific biological resources goals and objectives and develop a detailed conservation strategy, including specific land management requirements, in conjunction with the Placer County Conservation Plan ("PCCP"), or cause the Property to be unsuitable for use in conjunction with the PCCP, or otherwise cause Grantee to be unable to amend and/or convert this Easement as provided in Section 18, below (the "Purposes").

2. Protected Values. Specific attributes of the Property, which the Easement shall protect and conserve are hereinafter collectively referred to as the "Protected Values", and include but are not limited to:
   a. Unfragmented blue oak woodland, blue oak-foothill pine woodland, blue oak woodland savannah, valley foothill riparian, riverine and other mixed hardwoods/conifer forest.
   b. Open character of this region by preserving the natural landscape and the scenic values.
   c. Protection from soil erosion and the resultant impacts to water quality on the Bear River and numerous intermittent tributaries of the Bear River, through land stewardship and application of sound land management practices on the Property.
   d. Assurance that the Property shall be held and used for the purposes of plant and wildlife habitat preservation, restoration and management, environmental education and research, trail recreation, and for compatible public or private uses, all as may be consistent with natural habitat preservation and protection of sensitive natural resources.

3. Affirmative Rights and Interests Conveyed. To accomplish the Purposes of this Easement, the following rights and interests are conveyed to Grantee, its agents, and assigns by this Easement. These rights and interests shall be implemented through an operations and management plan (the "O&M Plan") for the Property to be developed by Grantor, subject to the approval of Grantee:
   a. To identify, preserve and protect in perpetuity the Protected Values.
   b. To enter upon, inspect, observe, and study the Property for the purposes of:
      (1) identifying the uses and practices thereon and the baseline condition thereof,
      (2) monitoring biological resources and the uses and practices regarding the Property to determine whether they are consistent with this Easement,

(3) assuring restoration, adaptive management, and maintenance activities do not compromise the Protected Values, and

(4) designing and constructing trails and any necessary appurtenant parking/staging areas and access roads.

Grantee shall make reasonable efforts to notify Grantor prior to entry on to the Property for these purposes, except when immediately necessary to prevent a violation of the terms of this Easement.

c. To have full and unimpeded access to the Property, including for the purposes of facilitating, developing and implementing public use of trails and other recreation facilities if Grantee determines to do so. Prior to approval of the O&M Plan, Grantee shall make reasonable efforts to notify Grantor prior to entry on to the Property. Such entry shall be in a manner that will not unreasonably interfere with Grantor's or Grantor's successors' use and enjoyment of the Property.

d. To prevent any activity or use of the Property that is inconsistent with the Purposes or conservation of the Protected Values and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use. However, it is not the intent of this Easement to limit Grantor's discretion to employ Grantor's choice of farm, ranch and forestry uses and management practices so long as those uses and practices are otherwise consistent with the terms of this Easement and do not cause the Property to be unsuitable for use in conjunction with the PCCP.

e. To erect and maintain such signage on the Property as Grantee may determine it may need bearing such information as determined by Grantee to be necessary in order to inform the public of Grantee's rights and to exercise Grantee's rights, subject to prior approval of Grantor, which shall not be unreasonably withheld. Grantee shall be responsible for the costs of erecting, maintaining, repairing and replacing such signage.

f. To convey to Grantee all development rights which may be associated with the Property, including the right to construct single family residential units and accompanying secondary dwelling units or any accessory structures on any currently existing legal parcel, and to convey any and all right by Grantor to apply for any land use entitlement, and/or further subdivision of the Property to allow for any new or enhanced development rights on the Property, except as specifically permitted by Grantee in writing. Grantor specifically acknowledges and waives any right to receive or use the benefit from any potential increase in allowable development rights associated with the Property resulting from future zoning changes and/or other governmental actions that would result in an increase in residential density on the property and intends to relinquish the right to further subdivide the Property. Notwithstanding the foregoing, Grantee acknowledges Grantor's currently expressed interest in retaining the right to construct a residential dwelling unit and other permitted secondary and accessory structures on up to five (5) acres of the Property for use in association with Grantor's management of the Property, and the parties acknowledge that other such similar uses may be needed in the future. The Parties agree that such needs shall be identified in the O&M Plan for the Property and upon approval of the Plan by the parties, Grantee shall transfer of such development rights to Grantor as are necessary to facilitate such use(s) in accordance with the Plan. Grantee's transfer of these rights shall not be unreasonably withheld.

g. To convey the right for Grantee to construct and operate a non-motorized multiuse trail system on the Property, and associated facilities, including but not limited to staging areas, access roads, parking, restroom facilities, picnic areas, and water and

sewer disposal facilities (the "Trail System"). The Parties agree and acknowledge that the precise alignment and construction of the Trail System is subject to further technical and entitlement review and mutual approval by the Parties. The Parties agree to work cooperatively and use their respective best efforts to identify mutually agreeable non-motorized trail alignments and the location of a parking/staging area and associated facilities to constitute the Trail System. The Parties further agree and acknowledge that construction and utilization of the Trail System is intended to be part of the recreational values of the Property, consistent with the protection of the Protected Values

h. To amend and/or convert this Easement and convey a habitat conservation easement as provided in Section 18, below.

i. To convey to Grantee all rights to enjoy access to the Property to the full extent Grantor possesses such rights in order to allow Grantee to exercise its rights under this Easement.

4. Uses and Practices. Grantee and Grantor intend that the Property shall remain as open space land with its primary purpose to further the Purposes described in Section 1. Certain uses and practices consistent with the Purposes of this Easement are set forth in Exhibit B attached hereto and incorporated herein by this reference. Examples of specific uses and practices which are inconsistent with the Purposes of this Easement are set forth in Exhibit C attached hereto and incorporated herein by this reference. The uses and practices set forth in Exhibits B and C are not necessarily exhaustive recitals of consistent and inconsistent activities, respectively. They are set forth both to establish specific permitted and prohibited activities, and to provide guidance in determining the consistency of other activities with the Purposes of this Easement.

5. Baseline Data. In order to establish the present condition of the Protected Values, Grantee has examined the Property and prepared a report attached hereto as Exhibit D ("Baseline Documentation Report") containing an inventory of the Property's relevant features and condition, its improvements and natural resources (the "Baseline Data"). A copy of the Baseline Documentation Report has been provided to Grantor, and another shall be placed and remain on file with Grantee. The Baseline Documentation Report has been signed by Grantor and Grantee, and thus acknowledged to accurately represent the condition of the Property at the date of the conveyance of this Easement. The Parties intend that the Baseline Data shall be used by Grantee to monitor Grantor's future uses of the Property and practices thereon. The Parties further agree that, in the event a controversy arises with respect to the condition of the Property or a particular resource thereof, the Parties shall not be foreclosed from utilizing any other relevant document, survey, or report to assist in the resolution of the controversy.

6. Grantor's Duties. Grantor shall undertake all necessary actions to perfect Grantee's rights under Section 3 of this Easement, and shall undertake all reasonable actions to protect and maintain the Protected Values.

7. Reserved Rights. Grantor reserves to itself, and to its duly authorized representatives and employees, successors, and assigns, all rights accruing from their ownership of the Property, including the right to engage in, or permit, or invite others to engage in uses of the Property that are not expressly prohibited herein and are not inconsistent with the

Purposes of this Easement. Without limiting the generality of the foregoing, the following rights are expressly reserved:

a. the right to sell or transfer the Property in its entirety, subject to Section 19, below;
b. the rights to build on the Property consistent with Section 3(f), above;
c. all right, title and interest in and to all tributary and non-tributary water, water rights, and related interests in, on, under, or appurtenant to the Property, provided that such water rights are used on the Property in a manner consistent with the Purposes of this Easement;
d. all right, title and interest in subsurface oil, gas and minerals; provided that the manner of exploration for, and extraction of any oil, gas or minerals shall be only by a subsurface method consistent with the Purposes of this Easement, and shall not damage, impair or endanger the Protected Values of the Property;
e. recreational activities including but not limited to hunting and fishing in accordance with established game laws and to the extent that such activities are not in conflict with Grantee's uses of the Property, including the Trail System;
f. the right to control predatory, invasive, and problem animals (including but not limited to feral pig) by the use of depredation and selective control techniques in accordance with applicable state and federal law;
g. the ability to restore, create, improve, and maintain habitat and natural resources in accordance with state and federal regulations unless such rights are amended and/or converted through the recordation of an amended easement as provided by Section 18, below;
h. the right to conduct Sustainable Forestry activities on the Property as defined in Exhibit B, including the right to reduce fuel loads to help prevent wildfire consistent with the Purposes of this Easement;
i. the right to conduct projects and activities consistent with the Purposes of this Easement that create, market, transfer and/or sell greenhouse gas ("GHG") sequestration or GHG reduction credits, carbon offset credits and/or any other methodology and/or market participation for the purposes of preventing or mitigating global warming, global climate change, accomplishing any other ecologically beneficial goal, and/or utilizing revenue from such carbon project(s), individually or collectively, to provide funding for the perpetual stewardship of the Protected Values; Further, this is recognized as being a public benefit by the 1993 United Nations Framework Convention on Climate Change; the Federal Energy Policy Act of 1992, section 1605 (a) and (b); and California Public Health and Safety Code section 42823(d), with which this Easement is in conformance;
j. The right to engage in agricultural uses of the Property consistent with the Purposes of this Easement in accordance with sound, generally accepted agricultural practices, provided the agricultural uses are compatible with and do not impair the Protected Values, and further provided that the agricultural uses do not result in significant soil degradation, significant pollution or degradation of any surface or subsurface waters, and are consistent with applicable laws. For the purposes of this Easement "agricultural uses" shall be confined to: breeding, raising, pasturing, and grazing livestock of every nature and description for food production; breeding and raising bees; harvesting, forestry in accordance with applicable County, state and federal law;.
k. the right to rent the Property or portions thereof for limited terms for pursuit of permitted uses, provided, however, Grantor shall (1) provide at least sixty (60) days prior written notice to Grantee of its intent to lease any portion of the Property, (2)

append to each lease a copy of this Easement, and (3) provide to Grantee a copy of any lease subsequently entered into;

l. educational activities consistent with the Purposes of the Easement.

8. Grantee's Remedies. If Grantee determines that Grantor is in violation of the terms of this Easement or that a violation is threatened, Grantee shall give written notice to Grantor of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the Purposes of this Easement, to restore the portion of the Property so injured. If Grantor fails to cure the violation within thirty (30) days after receipt of notice thereof from Grantee, or under circumstances where the violation cannot reasonably be cured within a thirty (30) day period, fail to begin curing such violation within the thirty (30) day period, or fail to continue to diligently cure such violation until finally cured, Grantee may bring an action at law or in equity of court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement or injury to any Protected Values, including damages for any loss thereof, and to require the restoration of the Property to the condition that existed prior to any such injury. If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Protected Values of the Property, Grantee may pursue remedies under this paragraph without waiting for the period provided for cure to expire. Grantee's rights under this paragraph apply equally in the event of either actual or threatened violations of the terms of this Easement, and Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this paragraph, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

9. Costs of Enforcement. Any reasonable costs incurred by Grantee in enforcing the terms of this Easement against Grantor following a violation by Grantor of the terms of this Easement that remains uncured after the expiration of the cure period, including, without limitation, costs of suit and attorneys' fees, and any costs of restoration necessitated by Grantor's violation of the terms of this Easement shall be borne by Grantor. If Grantor prevails in any action to enforce the terms of this Easement, Grantor's costs of suit, including, without limitation, attorneys' fees, shall be borne by Grantee.

10. Grantee's Discretion. Enforcement of the terms of this Easement shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

11. Acts Beyond Grantor's Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantor under emergency condition to prevent, abate or mitigate significant injury to the Property resulting from such causes.

12. Costs and Taxes. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep and maintenance of the Property. Grantor shall pay any and all taxes, assessments, fees and charges levied by competent authority on the Property or on this Easement. It is intended that this Easement constitute an enforceable restriction within the meaning or Article XIII Section 8 of the California Constitution and that this Easement qualify as an enforceable action under the provisions of California Revenue and Taxation Code Section 402.1.

13. Hold Harmless.

Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantee Indemnified Party" and collectively, "Grantee Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantee or any of it's employees; (ii) the obligations specified in Sections 6, 10 and 10(a); and (iii) the existence or administration of this Easement. If any action or proceeding is brought against any of the Grantee Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Grantee Indemnified Party.

Grantee shall hold harmless, protect and indemnify Grantor and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantor Indemnified Party" and collectively, "Grantor Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantor or any of it's employees; and (ii) the obligations specified in Section 10 as to obtaining any applicable governmental permits and approvals required for any activity or use requested by Grantee and permitted by this Easement. If any action or proceeding is brought against any of the Grantor Indemnified Parties by reason of any such Claim, Grantee shall, at the election of

and upon written notice from Grantor, defend such action or proceeding by counsel reasonably acceptable to the Grantor Indemnified Party.

14. Grantor's Environmental Warranty. This Easement is not intended to create environmental liability in the Grantee. The Grantor represents and warrants that it has no actual knowledge of a release or threatened release of hazardous substances or wastes on the Property and hereby promises to defend and indemnify the Grantee Indemnified Parties from and against all litigation, claims, demands, penalties and damages, including reasonable attorneys' fees, arising from or connected with any release of hazardous waste or violation of federal, state or local environmental laws and not the result of Grantee's activities on the Property.

    Notwithstanding any other provision herein to the contrary, the parties do not intend this Easement be construed such that it imposes on, creates in or gives the Grantee:

    a. the obligations or liability of an "owner" or "operator" as those words are defined and used in environmental laws, as defined below, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 USC section 9601 et seq., and hereinafter "CERCLA");
    b. the obligations or liability of a person described in 42 USC section 9607 (a)(3) or (4);
    c. the obligations of a responsible person under any applicable Environmental Laws, as defined below;
    d. the right to investigate and remediate any Hazardous Materials, as defined below, associated with the Property; or
    e. any control over Grantor's ability to investigate, remove, remediate, or otherwise clean up any Hazardous Materials associated with the Property.
    f. The term "Hazardous Materials" includes, without limitation, (i) material that is flammable, explosive, or radioactive; (ii) petroleum products; and (iii) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Hazardous Materials Transportation Act (49 USC section 5101, et seq.), the Hazardous Waste Control Law (California Health and Safety Code section 25100 et seq.), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable federal, state, or local laws, ordinances, rules, or regulations now in effect or enacted after this date.
    g. The term "Environmental Laws" includes, without limitation, any federal, state or local or administrative agency statute, regulation, rule, ordinance, order or requirement relating to pollution, protection of human health, the environment, or Hazardous Materials.

15. Access. Following the approval of the O&M Plan and the development of an approved Trail System, the Property shall be open to the public for recreational and/or educational uses. The Grantee shall hold harmless, indemnify, and defend Grantor and Grantor Indemnified Parties from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, or judgments, including, without limitation, reasonable attorneys' fees, arising from or connected with injury to or the death of any person, or physical damage to any property, resulting from such public access to the Property requested by Grantee and granted in writing in advance by Grantor, except to the extent of the adjudicated proportionate active fault of any of the Grantor Indemnified Parties.

Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Protected Values of the Property. If Grantor undertakes all reasonable actions consistent with the uses of the Property permitted by this Agreement to prevent the unlawful entry and trespass by persons, Grantee will not hold Grantor or its successors in interest liable for degradation or harm to the Protected Values of the Property stemming from trespass behavior.

16. Amendment. This Easement may be amended by Grantor and Grantee by mutual written agreement. However, any amendment shall be consistent with the Purposes of this Easement, shall not authorize additional dwelling units and shall not affect its perpetual duration. Any amendment shall be recorded in the official records of the County of Placer, State of California.

17. Assignment or Transfer of Easement. This Easement may be assigned or transferred by Grantee to an entity or organization authorized to acquire and hold conservation easements pursuant to California Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable), or the laws of the United States, upon obtaining the prior written consent of Grantor. Such consent shall not be unreasonably withheld by Grantor. If Grantee assigns its interest in this Easement, Grantee shall require the assignee to protect the Protected Values as defined in this Easement. Any assignment without such consent shall be void and of no effect.

18. Placer County Conservation Plan--Amendment and/or Conversion of Conservation Easement. Grantor acknowledges that Grantee is in the process of preparing a habitat conservation plan/natural communities conservation plan called the Placer County Conservation Plan ("PCCP"). The PCCP will establish a regional conservation program, including specific biological resources goals and objectives, and a detailed conservation strategy, including specific land management requirements, among other terms and conditions, which will fulfill requirements for permits authorizing the incidental take of certain covered species and natural communities. The terms and conditions of the PCCP must be approved by United States Fish and Wildlife Service under Section 10 of the Federal Endangered Species Act of 1973, as amended (16 U.S.C. Section 1531 *et seq.*) and by California Department of Fish and Game under California Fish and Game Code Section 2820 and set forth in the PCCP Implementing Agreement(s) (collectively, the "Agency PCCP Approvals"). Because the PCCP has not yet been finalized, and the Agency Approvals have not been given, the specific PCCP terms and conditions that may apply to the Property have not been determined. Grantor agrees that, after the Agency PCCP Approvals have been given and consistent with Section 16, above, this Easement may be amended and/or converted and replaced upon written request of Grantee to provide for improved or enhanced protection of the Protected Values on the Property as required by the PCCP, the PCCP Implementing Agreement(s) and the PCCP Reserve Management Plan for the Easement property in accordance with the PCCP, and agrees to cooperate with Grantee and sign any and all documents necessary to effectuate such amendment and/or conversion. The terms of any such amendment shall be subject to Grantor's approval, which may not be unreasonably withheld. Any such amendment shall not create an additional financial burden for Grantor, unless Grantor receives adequate financial compensation as determined by Grantor at its sole discretion, from Grantee or at Grantee's direction. Any such amendment shall be consistent with California law governing conservation easements and shall not affect the perpetual duration of this

Easement. Any such amendment and/or conversion shall be recorded in the official records of Placer County and Grantee shall promptly provide a conformed copy of the recorded amendment to the Grantor.

19. Transfer of Property. Grantor agrees to incorporate the terms of this Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. Grantee shall have the right to prevent any transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Easement (including the exhibits and documents incorporated by reference in it). The failure of Grantor to perform any act provided in this section shall not impair the validity of this Easement or limit its enforceability in any way.

20. Notices.
    a. "Notice" means any notice, demand, request or other communication or document to be provided under this Easement to a Party to this Easement
    b. The Notice shall be in writing and shall be given to the Party at its address or facsimile number set forth below, or such other address or facsimile number as the Party may later specify for that purpose by Notice to the other Party. Each Notice shall, for all purposes, be deemed given and received:

        (1) If given by facsimile, when the facsimile is transmitted to the Party's facsimile number specified below and confirmation of complete receipt is received by the transmitting Party during normal business hours or on the next business day if not confirmed during normal business hours;

        (2) If hand-delivered to a Party against receipted copy, when the copy of Notice is receipted;

        (3) If given by a nationally-recognized and reputable overnight delivery service, the day on which the Notice is actually received by the Party; or

        (4) If given by any other means, or if given by certified mail, return receipt requested, postage prepaid, two business days after it is posted with the United States Postal Service, at the address of the Party specified below:

        If to Grantor: The Trust for Public Land
        California State Office
        101 Montgomery Street, Suite 900
        San Francisco, CA 94104

Copies of any Notice to Grantor shall also be sent to:

Placer Land Trust
11661 Blocker Drive, Suite 110
Auburn, CA 95603
Telephone No. (530) 887-9222
Facsimile No. (530) 888-7720

If to the Grantee: County of Placer
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
Attn: Property Manager
Telephone No. (530) 886-4900
Facsimile No. (530) 889-6857

Copies on any Notice to Grantee shall also be sent to:

County of Placer
Office of County Counsel
175 Fulweiler Avenue
Auburn, CA 95603
Facsimile No. (530) 889-4069

If to ARB: State of California
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

c. If any Notice is sent by facsimile, the transmitting Party shall send a duplicate copy of the Notice to the other Party by regular mail. In all events, however, any Notice sent by facsimile transmission shall govern all matters dealing with delivery of the Notice, including the date on which the Notice is deemed to have been received by the other Party.
d. The provisions above governing the date on which a Notice is deemed to have been received by a Party to this Easement shall mean and refer to the date on which a Party to this Easement, and not its counsel or other recipient, to which a copy of the Notice may be sent, is deemed to have received the Notice.
e. If Notice is tendered under the provisions of this Easement and is refused by the intended recipient of the Notice, the Notice shall nonetheless be considered to have been given and shall be effective as of the date provided in this Easement. The contrary notwithstanding, any Notice given to either Party in a manner other than that provided in this Easement that is actually received by the noticed Party, shall be effective with respect to such Party on receipt of the Notice.
f. Provided that in the event Grantee assigns or transfers its rights under this Easement, copies of all notices to Grantee shall still be given to the County of Placer, Department

of Facility Services. Furthermore, Grantor, and Grantor's successors and/or assigns, shall notify Grantee within ten (10) days of the change in ownership of the Property or a portion thereof.

g. Each Party shall make an ordinary, good faith effort to ensure that it will accept or receive Notices that are given in accordance with this paragraph, and that any person to be given Notice actually receives such notice. A Party may change or supplement the addresses given above, or designate additional addresses, for purposes of this Section by giving the other Party written Notice of the new address in the manner set forth above.

21. General Provisions

a. California Law. The Parties hereto acknowledge that this Easement has been negotiated and entered into in the State of California. The Parties hereto expressly agree that this Easement shall be governed by, interpreted under and construed and enforced in accordance with laws of the State of California. Venue for any disputes shall be the Superior Court for the State of California, Placer County. The Parties hereby waive any federal court removal rights and/or rights based on original jurisdiction that they may have.

b. Liberal Construction. Any general rule of construction to be contrary not withstanding, this Easement shall be liberally construed in favor of the grant to effect the Purposes of this Easement and the policy and purpose of the California Conservation Easement Act of 1979, as amended. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the Purposes of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

c. Severability. If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

d. Entire Agreement. This instrument sets forth the entire agreement of the Parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

e. No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

f. Joint Obligation. The obligations imposed by this Easement upon Grantors shall be joint and several.

g. Successors; Recordation; Future Cooperation. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of the Parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. Notwithstanding any provision of this Easement to the contrary, upon transfer of its fee interest in the Property, Grantor shall have no further obligations under this Easement, and Grantee shall thereafter look only to Grantor's successors-in-interests for fulfillment of any of Grantor's obligations or covenants under this Easement. Grantor consents to the recordation of this Agreement in the Official Records of Placer County. The Parties further agree and acknowledge that their respective obligations and the mutual goals of the Parties hereunder are dependent on the mutual cooperation and good faith efforts of the Parties. The Parties therefore agree

to execute such additional documents and take such other actions as may be reasonable and necessary to carry out the Purposes of this Agreement.

h. Termination of Rights and Obligations. A Party's rights and obligations under this Easement terminate upon transfer of the Party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

i. No Governmental Approval. The grant of this Easement shall not grant or convey any discretionary land use approvals; nor shall it constitute a governmental approval of any improvements, construction or other activities which may be permitted under this Easement.

j. Third Party Beneficiaries. This Easement creates one (1) third party beneficiary, the California Air Resources Board, an entity of the State of California Environmental Protection Agency ("ARB"). ARB is a third party beneficiary with its right limited to enforcing any obligation under the Easement to the extent it relates to Grantor's Carbon Project, including creation, marketing and sales of GHG sequestration or GHG reduction credits, carbon offset credits or related sales to the extent Grantor does so in accordance with Section 7(i), above. These rights include standing as an interested party in any proceeding affecting the Easement. ARB is named as a third party beneficiary only because Grantor estimates that the creation, marketing and sale of GHG sequestration or GHG reduction credits, carbon offset credits or related sales will be necessary to fund Grantor's perpetual stewardship of the Protected Values. Other than the foregoing, this Easement creates no additional third party beneficiaries.

k. Counterparts. This Agreement may be executed in counterparts.

l. Legal and Financial Review. Each party represents and warrants that it has had the opportunity to review this Easement with the legal and/or financial adviser(s) of its own choosing, or has knowingly declined the opportunity to do so. Grantor agrees and acknowledges that the Grantee makes no representations or statements of any kind regarding the tax consequences of this Easement.

m. Attorneys' Fees. Should any party hereto commence any action or proceeding to enforce any provision of this Easement or for damages by reason of an alleged breach of any provision of this Easement or for declaratory relief or specific performance, the prevailing party shall be entitled to recover from the losing party or parties such amount as the court may adjudge to be reasonable attorneys' fees for services rendered to the prevailing party and costs and expenses incurred in such action or proceeding.

n. No Waiver. Grantee's failure to enforce any right or provision of the terms and conditions of this Easement shall not constitute a waiver of such right or provision unless expressly acknowledged by Grantee in writing.

22. Unrecorded Baseline Information. The Parties agree and acknowledge that the Baseline Document Report attached as Exhibit D hereto is premised upon certain site maps, aerial photos, and ground level photography which is not suitable for recording at the Office of the County Recorder (hereinafter, the "Unrecorded Baseline Information.") County agrees to retain the Unrecorded Baseline Information at the Clerk of the Board of Supervisors, and at the Department of Facility Services, or other County office as the County may designate upon notice to Grantor, for at least ten (10) years from the date this Easement is recorded.

IN WITNESS WHEREOF, Grantor has executed this Deed of Easement this 16th day of December, 2010.

THE TRUST FOR PUBLIC LAND (GRANTOR)

By: _____ Date: 12-16-10

By: _____ Date: 12-16-10

[Notarization of Grantor's signatures]

Exhibit A-1: Property Legal Description
Exhibit A-2: Property Map
Exhibit B: Permitted Uses and Practices
Exhibit C: Prohibited Uses and Practices
Exhibit D: Baseline Documentation Report

## ACKNOWLEDGMENT

State of California
County of San Francisco

On Dec 16, 2010 before me, Hsiao-Wen Shih, **Notary Public** personally appeared Gilman Miller, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity, and that by his/~~her/their~~ signature(~~s~~) on the instrument the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

HSIAO-WEN SHIH
Commission # 1840657
Notary Public - California
San Francisco County
My Comm. Expires Mar 16, 2013

## ACKNOWLEDGMENT

State of California
County of San Francisco

On Dec 16, 2010 before me, Hsiao-Wen Shih, **Notary Public** personally appeared Cecilia Blake, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity, and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

HSIAO-WEN SHIH
Commission # 1840657
Notary Public - California
San Francisco County
My Comm. Expires Mar 16, 2013

# EASEMENT PROPERTY LEGAL DESCRIPTION

PARCEL ONE:

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B. & M., THAT LIE SOUTHEASTERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER CORNER OF SAID SECTION 25.

APNS: 026-020-012 AND 013

PARCEL TWO:

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B.& M., WHICH ARE BOUNDED AS FOLLOWS:

ON THE NORTHWEST BY THE CENTER LINE OF THE BEAR RIVER; ON THE EAST BY THE EAST LINE OF SAID SECTION 25; ON THE SOUTHEAST BY A LINE DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER (1/4) CORNER OF SAID SECTION 25; AND ON THE WEST BY THE WEST LINE OF SAID SECTION 35.

EXCEPTING THEREFROM THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36.

ALSO EXCEPTING THEREFROM ALL THAT PORTION OF THE SOUTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SECTION 25, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B. & M., WHICH LIES IN PLACER COUNTY.

APNS: 026-020-009 AND 011

PARCEL THREE:

THAT PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, DESCRIBED AS BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 3; THENCE SOUTH ALONG THE EAST LINE THEREOF 52.60 CHAINS; THENCE NORTH 37 DEGREES 30 MINUTES WEST 66.08 CHAINS TO THE NORTH ONE-QUARTER CORNER OF SECTION 3; THENCE EAST ALONG THE NORTH LINE OF SECTION 3, A DISTANCE OF 40 CHAINS TO THE POINT OF BEGINNING.

APN: 026-061-003

PARCEL FOUR:

EASEMENTS FOR INGRESS, EGRESS AND UTILITIES APPURTENANT TO PARCELS ONE THROUGH THREE ABOVE AS SET FORTH AND DESCRIBED IN THOSE CERTAIN DEEDS RECORDED JUNE 19, 1998, AS INSTRUMENT NO, 98-0047099, 98-0047100, 98-0047102, AND 98-0047103, OFFICIAL RECORDS, AND AS AMENDED BY AN INSTRUMENT RECORDED APRIL 6, 2000 AS INSTRUMENT NO. 2000-0023218

PARCEL FIVE:

BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., AND RUNNING THENCE WEST ON THE LINE DIVIDING THE SOUTH HALF OF SAID SECTION 3 INTO NORTH AND SOUTH HALVES TO THE WEST LINE OF SAID SECTION 3; THENCE NORTH ALONG THE WEST LINE OF SAID SECTION 3, TO THE NORTHWEST CORNER OF SAID SECTION 3; THENCE EAST ALONG THE TOWNSHIP LINE, THE SAME BEING THE NORTH SECTION LINE OF SAID SECTION 3 TO THE POINT BEING COINCIDENT WITH THE NORTHEAST CORNER OF LOT 2 (INCORRECTLY REFERRED TO AS LOT 21 IN DEED THAT RECORDED FEBRUARY 15, 2005 AS INSTRUMENT NO. 2005-0017339) OF THE NORTHWEST FRACTIONAL QUARTER OF SAID SECTION 3; THENCE SOUTH 37 DEGREES 30' EAST 66 CHAINS AND EIGHT LINKS TO A POINT ON THE EAST LINE OF SAID SECTION 3, 52 CHAINS AND SIXTY LINKS SOUTH OF THE NORTHEAST CORNER OF SAID SECTION 3; AND THENCE SOUTH ON THE EAST LINE OF SAID SECTION 3 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION LYING OUTSIDE OF PLACER COUNTY.

APNS: 026-061-001 AND 068 (PORTION)

PARCEL SIX:

THE WEST HALF OF THE SOUTH HALF OF THE SOUTH HALF OF SECTION 3 IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.&M.

APNS: 026-061-007 AND 051

PARCEL SEVEN:

THAT PARCEL OF LAND DESCRIBED IN DEED TO ALLAN Y. WU RECORDED ON MARCH 4, 1991 IN THE OFFICE OF THE COUNTY RECORDER OF PLACER COUNTY

ON DOCUMENT NUMBER 91-011403, OFFICIAL RECORDS, BEING A PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, MOUNT DIABLO BASE AND MERIDIAN, PLACER COUNTY, CALIFORNIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST ONE-HALF OF THE SOUTH ONE-HALF OF THE SOUTH ONE-HALF OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, OF THE MOUNT DIABLO BASE AND MERIDIAN.

APN: 026-061-068 (PORTION)

PARCEL EIGHT:

A 50' NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED IN BOOK 1806, AT PAGE 243, ET SEQ, PLACER COUNTY OFFICIAL RECORDS, AS MORE PARTICULARLY DESCRIBED IN PARAGRAPH (B), AT PAGE 244 OF SAID INSTRUMENT.

PARCEL NINE:

A 50' NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED IN BOOK, 1806, AT PAGE 243, ET SEQ, PLACER COUNTY OFFICIAL RECORDS, AS MORE PARTICULARLY DESCRIBED IN PARAGRAPH (A) AT PAGE 244 OF SAID INSTRUMENT.

PARCEL TEN:

A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED ON APRIL 25, 1977, IN BOOK 1832, AT PAGE 385, PLACER COUNTY OFFICIAL RECORDS.

PARCEL ELEVEN:

AN EASEMENT 50 FEET IN WIDTH APPURTENANT TO PARCELS SIX AND SEVEN ABOVE OVER AN EXISTING ROADWAY LOCATED IN THE WEST HALF OF SECTION 10, THE NORTHEAST QUARTER OF SECTION 10, AND THE WEST HALF OF SECTION 11, ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., THE CENTERLINE OF SAID EASEMENT BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 10 FROM WHICH THE NORTHWEST CORNER OF SAID SECTION 10 BEARS NORTH 00 DEGREES 10'06" WEST 2133.23 FEET; THENCE FROM SAID POINT OF BEGINNING FOLLOWING ALONG THE CENTERLINE OF AN EXISTING ROADWAY THE FOLLOWING COURSES AND DISTANCES: SOUTH 64 DEGREES 38'04" EAST 231.43 FEET; SOUTH 45 DEGREES 43'10" EAST 426.44 FEET; SOUTH 69 DEGREES 45'45" EAST 286.51; NORTH 53 DEGREES 59'10" EAST 438.84 FEET; SOUTH 77 DEGREES 52'03" EAST 303.33 FEET; SOUTH 70 DEGREES 21'07" EAST 203.08 FEET; SOUTH 59 DEGREES

39'03" EAST 193.48 FEET; SOUTH 75 DEGREES 57'57" EAST 203.25 FEET; SOUTH 83 DEGREES 37'59" EAST 275.43 FEET; SOUTH 83 DEGREES 11'57" EAST 580.80 FEET; SOUTH 88 DEGREES 14'07" EAST 913.74 FEET; NORTH 53 DEGREES 34'28" EAST 156.51 FEET; NORTH 61 DEGREES 24'16" EAST 566.00 FEET; NORTH 48 DEGREES 27'58" EAST 370.45 FEET; NORTH 62 DEGREES 00'58" EAST 243.94 FEET; NORTH 65 DEGREES 03'28" EAST 258.89 FEET; SOUTH 77 DEGREES 10'07" EAST 258.05 FEET; SOUTH 50 DEGREES 56'52" EAST 579.20 FEET; SOUTH 22 DEGREES 21'03" WEST 221.03 FEET; SOUTH 44 DEGREES 08'57" EAST 168.60 FEET; SOUTH 61 DEGREES 16'46" EAST 152.83 FEET; SOUTH 88 DEGREES 31'02" EAST 329.19 FEET; NORTH 74 DEGREES 40'08" EAST 168.46 FEET; SOUTH 83 DEGREES 12'09" EAST 209.37 FEET; SOUTH 58 DEGREES 39'39" EAST 205.29 FEET; SOUTH 21 DEGREES 32'49" EAST 414.40 FEET; SOUTH 13 DEGREES 18'24" EAST 268.18 FEET; TO THE END OF THE EASEMENT HEREIN DESCRIBED AS GRANTED IN DEED RECORDED MARCH 24, 1995 AS INSTRUMENT NO. 95-014536.

SAID EASEMENT BEING THE SAME EASEMENT DESCRIBED FIRST IN EXHIBITS A, B, AND C OF THE PARCEL MAP WAIVER NO. P73170W RECORDED APRIL 8, 1980 IN BOOK 2245, PAGE 218 OFFICIAL RECORDS.

PARCEL TWELVE:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS GRANTED IN EASEMENT DEEDS RECORDED FEBRUARY 3, 2005 AS INSTRUMENT NO. 2005-0013289 AND JUNE 24, 2005 AS INSTRUMENT NO. 2005-0081571 OFFICIAL RECORDS.

PARCEL THIRTEEN:

A NON-EXCLUSIVE EASEMENT FOR A ROADWAY AND UTILITIES OVER LAND DESCRIBED AS FOLLOWS:

A PORTION OF THAT TRACT OF LAND GRANTED TO THE FLORENCE P.C. FANG ON SEPTEMBER 16, 2003 RECORDED AS DOCUMENT NO. 2003-0158548, OFFICIAL RECORDS OF PLACER COUNTY, LOCATED IN SECTION 10, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., DESCRIBED AS FOLLOWS:

A STRIP OF LAND 50 FOOT WIDE LYING 25 FEET EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

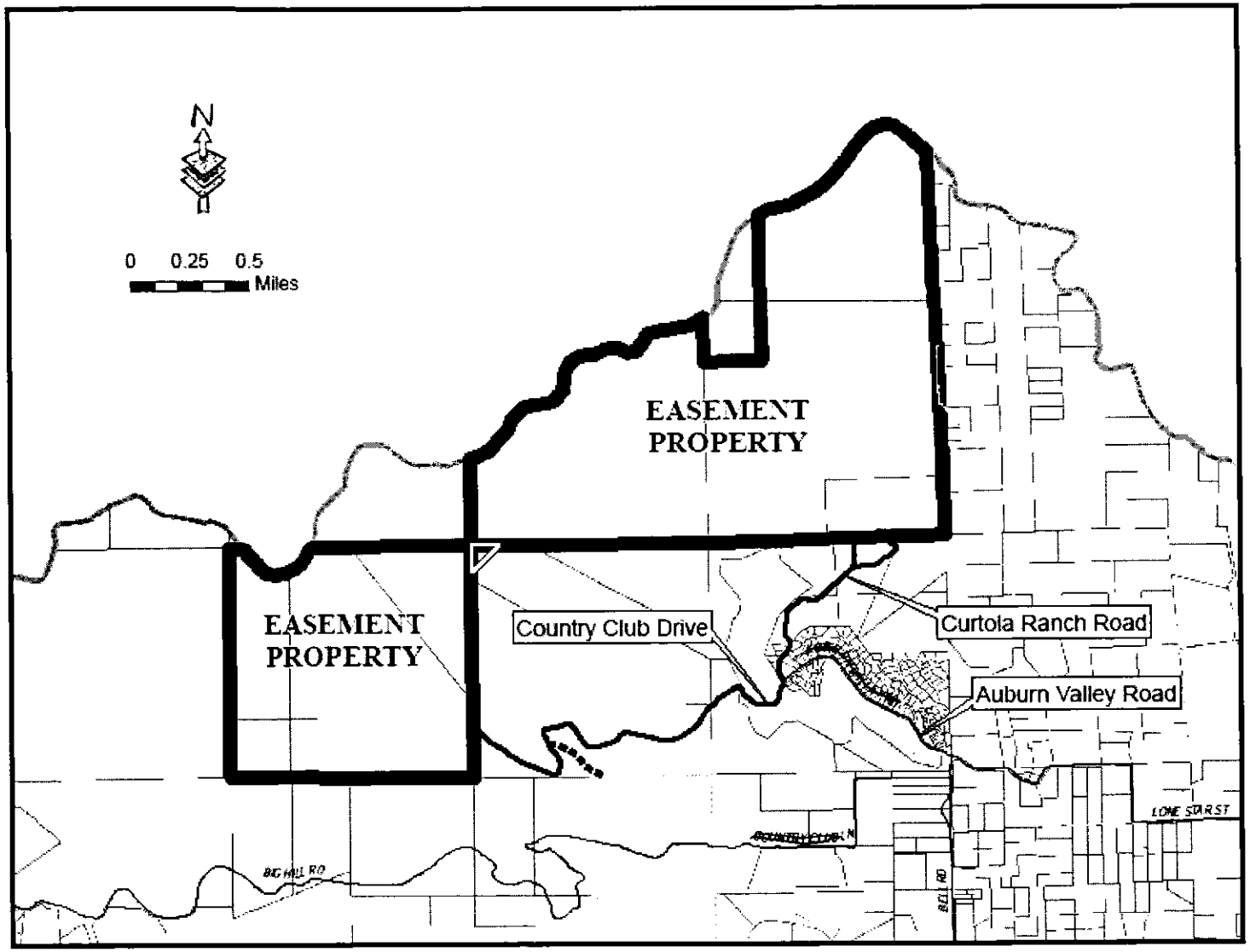
BEGINNING AT A POINT ON THE NORTHERLY LINE OF THE ABOVE DESCRIBED TRACT OF LAND, FROM SAID POINT OF BEGINNING THE NORTHWEST CORNER OF SAID SECTION 10 BEARS SOUTH 89 DEGREES 17 MINUTES 05 SECONDS WEST A DISTANCE OF 1720.62 FEET; THENCE ALONG SAID PROPOSED CENTERLINE SOUTH 33 DEGREES 40 MINUTES 30 SECONDS EAST A DISTANCE OF 410.06 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 10 DEGREES 15 MINUTES 40 SECONDS A LENGTH OF 107.45 FEET AND A CHORD BEARING SOUTH 38 DEGREES 48 MINUTES 20 SECONDS EAST A DISTANCE OF 107.31 FEET; THENCE SOUTH 43 DEGREES 56 MINUTES 10 SECONDS EAST A DISTANCE OF 173.76 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO

THE RIGHT, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 12 DEGREES 41 MINUTES 32 SECONDS, A LENGTH OF 132.91 FEET AND A CHORD BEARING SOUTH 37 DEGREES 35 MINUTES 24 SECONDS EAST A DISTANCE OF 132.64 FEET; THENCE SOUTH 31 DEGREES 14 MINUTES 38 SECONDS EAST A DISTANCE OF 265.49 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 1010.00 FEET, A CENTRAL ANGLE OF 15 DEGREES 16 MINUTES 41 SECONDS, A LENGTH OF 269.32 FEET AND A CHORD BEARING SOUTH 38 DEGREES 52 MINUTES 58 SECONDS EAST A DISTANCE OF 268.52 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF 250.00 FEET, A CENTRAL ANGLE OF 46 DEGREES 39 MINUTES 20 SECONDS, A LENGTH OF 203.57 FEET AND A CHORD BEARING SOUTH 23 DEGREES 11 MINUTES 38 SECONDS EAST A DISTANCE OF 198.00 FEET; THENCE SOUTH 00 DEGREES 08 MINUTES 02 SECONDS WEST A DISTANCE OF 119.96 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 16 DEGREES 02 MINUTES 55 SECONDS A LENGTH OF 168.06 FEET AND A CHORD BEARING SOUTH 08 DEGREES 09 MINUTES 30 SECONDS WEST A DISTANCE OF 167.51 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE LEFT, CONCAVE EASTERLY, HAVING A RADIUS OF 800.00 FEET, A CENTRAL ANGLE OF 23 DEGREES 37 MINUTES 44 SECONDS, A LENGTH OF 329.92 FEET AND A CHORD BEARING SOUTH 04 DEGREES 22 MINUTES 05 SECONDS WEST A DISTANCE OF 327.59 FEET; THENCE SOUTH 07 DEGREES 26 MINUTES 47 SECONDS EAST A DISTANCE OF 475.59 FEET TO THE CENTERLINE OF AN EXISTING 50 FOOT WIDE ROADWAY AND PUBLIC UTILITY EASEMENT AS RECORDED IN BOOK 2245, AT PAGE 218, OFFICIAL RECORDS OF PLACER COUNTY.

THE SIDELINES OF SAID 50 FOOT WIDE STRIP OF LAND ARE TO BE LENGTHENED OR SHORTENED AS NECESSARY TO TERMINATE AT SAID NORTHERLY BOUNDARY AND THE NORTH BOUNDARY OF SAID EXISTING ROADWAY AND PUBLIC UTILITY EASEMENT.

**END OF LEGAL DESCRIPTION**

## EXHIBIT A-2 EASEMENT PROPERTY




DEPICTION

## PERMITTED USES AND PRACTICES

The following uses and practices, though not necessarily an exhaustive recital of consistent uses and practices, are expressly permitted under this Easement at Grantor's sole discretion, and they are not to be precluded, prevented, or limited except as otherwise provided by this Easement.

1. Reserved Rights: To implement, use and reserve all of Grantor's reserved rights as allowed in Section 7, herein.
2. Agriculture:
   a. Grazing: To conduct grazing as a tool for habitat management, for fuel load management that reduces fire threat, for economic gain and for related purposes to the extent consistent with the Purposes of the Easement and compatible with protecting the Protected Values. Grantor or Grantor's designee(s) may graze any species of animal that does not cause significant damage to oak trees and/or cause significant soil erosion. Grantor may overseed with advance written permission of Grantee.
   b. Animals: To keep any animal or insect, consistent with the Purposes of the Easement and compatible with protecting the Protected Values, which does not significantly damage the woodland, wildlife habitat, rangeland, soil, or water quality.
   c. Crops: To plant crops for non-commercial use.
3. Fencing: To place, construct, and maintain fencing deemed by Grantor to be reasonably necessary and that are not detrimental to the Protected Values of the Easement.
4. Improvements and Facilities:
   a. Construction and Maintenance: To maintain and repair existing structures, fences, roads, ditches, and other improvements on the Property.
      i. Construction of Buildings: To construct non-residential buildings and related structures that are accessory to property and habitat management or permitted agricultural uses on the Property, subject to obtaining the express written approval of Grantee as provided by this Easement. Grantee retains the right to deny requests for construction, if in Grantee's sole determination the location of construction would be detrimental to the Protected Values of the Easement. Upon completion of construction, Grantor shall update the Baseline Documentation Report to describe and depict the location of such improvements.

ii. Construction within a Building Envelope: Grantor and Grantee shall agree upon a building envelope prior to Grantee permitting Grantor to apply for a Building Permit. At the time of such building envelope designation, Grantor shall submit a metes and bounds description to the Grantee. Within the building envelope, Grantor may construct residential buildings and other accessory buildings (barns, sheds, etc.) as allowed by Grantee.

b. Replacement: To replace destroyed, deteriorated, or obsolete improvements, structures, fences, corrals, roads or ditches, whether existing at the date hereof or constructed subsequently pursuant to the provisions of this Easement, Grantor may replace the same with improvements or structures of similar size, function, capacity and location.

c. Rental: To retain the right to rent all or a portion of the Property and/or structures for permitted uses.

d. Trail System: To construct a non-motorized multiuse trail system on the Property, including associated uses, with Grantee. The Parties agree and acknowledge that the precise alignment and construction of the Trail System is subject to further review and mutual approval by the Parties. The Parties agree and acknowledge that construction and utilization of the Trail System is intended to be consistent with the Protected Values, and any Grantor reserved rights or activities that may be present on the Property at the time the Trail System is identified.

5. Conservation Uses: To pursue those activities employed in the preservation, enhancement, restoration, and/or creation of Protected Values and to engage in any and all conservation uses of the Property in accordance with sound, generally accepted conservation practices.

a. Habitat. To restore, create, plant, propagate, improve, enhance, and maintain habitat in accordance with local, state and federal standards and regulations unless such rights are amended and/or converted through the recordation of an amended easement as provided by Section 18 of this Easement.

b. Sustainable Forestry: To engage in understory clearing, tree thinning, tree cutting, and clearing of dead or down wood for fuel load reduction and/or forest and woodland health ("Sustainable Forestry") or for carbon project activities as described in Section 7(i) of this Easement. To remove from the Property any vegetative and woody debris from Sustainable Forestry activities for any purpose (including but not limited to sale or use as biomass) in accordance with any plan that may be developed prior to registration of a forest carbon sequestration project, with Grantor's approval, or to utilize vegetative and woody debris for habitat enhancement on the Property. Nothing permitted by this section shall allow any practice that is inconsistent with the Purposes of this Easement, damages, decreases, or fragments woodland areas or adversely impacts the Protected Values

c. Tree Removal: To cut and remove trees only as necessary to: pursue Conservation Uses; construct or repair buildings, fences, and other permitted improvements; cut or collect firewood for the heating of permitted residences; prevent property damage; prevent personal injury or for general public safety; control insects or disease; or as otherwise permitted by this Easement. General tree clearing for rangeland enhancement, animal husbandry or other agricultural activities is prohibited.

6. Water Resources and Impoundments.
   a. NID Easement. To utilize existing Nevada Irrigation District easements to convey and receive water for permitted agricultural uses, which are consistent with the Protected Values of this Easement.
   b. Agricultural Stock Ponds. To construct and maintain additional ponds and wells on the Property, provided that any pond is less than one (1) acre, in area. Such ponds are to enhance permitted agricultural and recreational purposes, and may not be used for motorized recreational watercraft. Grantor shall obtain the express written approval of Grantee for the construction of such ponds, and Grantee retains the right to deny requests for construction, if in Grantee's sole determination the construction would be detrimental to the Protected Values of the Easement.
7. Vehicle Usage. To operate motorized vehicles anywhere on the Property by Grantor or Grantor's designee(s) for property and habitat management, Sustainable Forestry and permitted agricultural activities, provided that such motorized vehicle use does not significantly impair the Protected Values, provided, that operation of motorized vehicles off of identified roads shall be minimized. To operate motorized vehicles by Grantor, Grantor's designee(s), Grantee or Grantee's designee(s) on any baseline-identified roads and the Trail System.
8. Recreational Uses. To utilize the Property for recreational or educational purposes including but not limited to hiking, bicycling, horseback riding, hunting, and fishing. To provide educational opportunities.
9. Signage. To post signage for trespass. Grantor or Grantee, with advance written notice to the other Party, may also place and maintain signage on the Property that describes the involvement of Grantor and Grantee and any funding partners that contribute to the purchase of the Property, or that furthers the Purposes of the Easement and is associated with the uses permitted hereunder.
10. Carbon Projects: Grantor shall be permitted to pursue carbon sequestration, carbon credit sales, and related carbon projects as described in Section 7(i) herein.

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## PROHIBITED USES AND PRACTICES

The following uses and practices, though not necessarily an exhaustive recital of inconsistent uses and practices, are inconsistent with the Purposes of this Easement and are expressly prohibited upon or within the Property:

1. Impairment of Protected Values. The impairment of the Protected Values, except as otherwise expressly permitted herein. Conduct of those activities that are inconsistent with the Protected Values, and the Purposes of this Easement.
2. Commercial or Industrial Use. The establishment and conduct of commercial or industrial uses, the conduct of commercial timber or fuel wood harvesting unless associated with Sustainable Forestry as permitted in Exhibit B, or the construction, placing, or erection of billboards or any signs, except as permitted in Exhibit B.
3. Construction. The construction, reconstruction, or replacement of structures, housing, roads, trails, and other improvements and facilities, except as otherwise may be allowed by this Easement.
4. Subdivision. The gift deeding, subdivision (parcel map or final map for sale, lease or financing), or de facto subdivision of the Property. Note however, that the lease of all or a portion of the Property for permitted uses (such as productive agricultural use), which is otherwise consistent with terms of this Easement, shall not be prohibited by this Section.
5. Motorized Vehicles. The use of motorized vehicles, except as permitted in Exhibit B or for emergencies.
6. Tree Cutting. The harvesting or removal of trees, except as permitted in Exhibit B.

**EXHIBIT C**
**PROHIBITED USES AND PRACTICES**


7. Dumping. The dumping or other disposal of wastes, refuse or debris on the Property, except for organic material generated by permitted Conservation Uses on the Property; provided that any such dumping or disposal of organic material shall be in accordance with applicable law and generally accepted conservation management practices, and that no runoff from organic material shall adversely affect water quality. No trash, refuse, vehicle bodies or parts, rubbish, debris, junk, waste, or hazardous waste shall be placed, stored, dumped, buried, or permitted to remain on the property except as reasonably required for the use of the Property for management purposes, and in accordance with applicable law.
8. Soil Degradation. Ranching (e.g., overgrazing), agricultural, or other uses otherwise permitted under this Easement, which result in significant degradation of soil quality, sedimentation of adjoining waterways, or excessive erosion. Intermittent and short-term instances of erosion that occur in limited areas as a result of Trail System or road construction/utilization/maintenance, which are subsequently repaired shall be permitted by this Easement.
9. Water Quality Degradation. Ranching, agricultural, Conservation, or other uses otherwise permitted under this Easement, which result in significant degradation of water quality. Stockpiling animal wastes, compost, or loose soil in a manner whereby runoff adversely affects water quality.
10. Surface Alteration or Excavation. Any alteration of the topography and natural drainage of the Property including, without limitation, the removal of soil or the extraction of minerals by any surface mining method, except as may be required for uses on the Property incidental to the agricultural uses permitted herein, and provided that such removal or extraction is limited and localized, is not irremediably destructive of significant conservation interests, does not damage, impair or endanger the Protected Values of the Property, is in accordance with applicable law, and is approved, as to location and amount of materials and any necessary or appropriate remediation, in writing by Grantee. Grading activities are to be limited to: the maintenance of baseline roads; grading for, to, and within the Trail System and any permitted building activities; and grading for new roads that replace decommissioned roads resulting in enhancement of the Protected Values subject to Grantee approval.
11. Water Rights. Grantor shall not transfer or otherwise convey water rights that may otherwise be needed to further Purposes.
12. Crops. Cultivation and planting of both permanent and non-permanent crops, except as permitted in Exhibit B.

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**EXHIBIT D**

**BASELINE DOCUMENTATION REPORT**

# PLACER COUNTY PROPERTY ASSESSMENT BRUIN RANCH "PHASE 1" BASELINE DOCUMENTATION REPORT

**December 1, 2010**

PROPERTY DESCRIPTION

**Property Owner:** The Trust for Public Land, a California non-profit public benefit corporation. The Trust for Public Land acquired this property from Harvego Real Estate LLC, a California limited liability company, and intends to transfer the property to Placer Land Trust, a non-profit corporations incorporated under the laws of the State of California as a tax-exempt public charity described in Section 815.3 of the California Civil Code and Sections 501 (c)(3) and 509 (a)(1) of the Internal Revenue Code.

**Property Address:** (see "General Location" below)

**General Location:** Along Bear River north and west of Auburn Valley Country Club, off of Auburn Valley Drive, north of the intersection of Bell Road and Lone Star Road in the unincorporated area of Placer County.

**Assessors Parcel Numbers:** 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, and 026-061-068,

**Zoning:** Farm with a combining building site minimum of 160 acres (F-B-X160)

**General Plan Designation:** Agricultural 80 Acre Minimum

**Area of Parcel(s):** 1,773 acres

**General Description:** The property contains dense stands of blue oak woodland, mixed hardwood/conifer forest, grassland, rock outcroppings, dry land pasture, ponds, and approximately three miles of the Bear River. There are no structures on the property. Additional information about the property description, content, and characteristics is on file at the offices of Placer Land Trust.

**Aerial Attached:** ☒ Yes ☐ No
An aerial map of the property is attached as Attachment 'A'.

**Field Review Conducted:** ☒ Yes ☐ No
**If yes, what was the date of the field review?** Several field reviews during 2009 and 2010, most recently December 1, 2010.

PROPERTY ASSESSMENT

## Onsite Resources:

1. **Agricultural Resources:** The land is currently used for seasonal grazing of 50-500 cattle. There is a limited area of irrigated pasture on the property (approximately 30 acres), with most of the rest of the property used as dry pasture grazing. The property is also used for bee-keeping. No other crops are grown or harvested.

2. **Biological Resources:** The site is dominated by blue oak woodland, non-native grasses (dry pasture) and mixed hardwood/conifer forest. Woodland and forest understory consists of non-native annual grasses with a moderate shrub layer. Forage composition is typical for foothill annual grasslands. The site is currently grazed, which has controlled the spread of invasive plants such as yellow-star thistle, medusahead, and Himalayan blackberry. The Bear River flows along the property boundary for approximately three miles, and there are an additional 16 miles of streams and a half-dozen ponds/wetlands. According to the Placer County Soil Survey for the Western part of Placer County, the main soils on the property are Auburn-Sobrante-Rock Outcrop Complex and Auburn-Sobrante Silt Loams (Soil Survey Staff NRCS, 2008). The property supports suitable habitat for a number of Federally and State listed species. A list of plant and animal species observed on the property during 2009 and 2010 is on file at the offices of Placer Land Trust. Ground-level photographic documentation of existing conditions is attached as Attachment 'C'. Additional photos are on file at the offices of Placer Land Trust.

3. **Scenic/Historic Resources:** The property includes Bald Rock Mountain, elevation 1,681 feet above sea level (the high point of the property), from which much of El Dorado, Placer, Nevada and Sacramento counties are visible, as are the Sierra Nevada mountains, Sutter Buttes, Sacramento Valley, and Coast Range. Evidence of historic Native American habitation includes several grinding holes and other archeological sites spread across the property, indicating the presence of Nisenan, Maidu, and Martis peoples. The property contains an extensive system of rock walls dating from the Gold Rush era. A Cultural Assessment Report detailing more complete historic and cultural resources is on file at the offices of Placer Land Trust.

4. **Outdoor Recreation:** The land is currently not accessible to the public. Due to the property's size and location, and the intent of Placer Land Trust as the eventual landowner, the property is ideal for multiple public recreation opportunities.

## Infrastructure:

1. **Roads/Frontage:** The main access roads are two private roads, Auburn Valley Road and Curtola Ranch Road, which are accessed from two public roads Bell Road and Lone Star Road . The property may also be accessed from the private Big Hill Road. A number of dirt roads transverse the property. All of the roads located on the property are unpaved. See Attachment 'B' for a map showing roads and trails.

2. **Sewer/Septic:** No septic system, leach field, or sewer infrastructure are located on the property. The Auburn Valley Country Club has a nearby wastewater treatment plant but no service is currently provided to the subject property.

3. **Treated surface water/groundwater:** There is no treated water on the property.

4. **Irrigation water:** Irrigation water transverses the property through a system of natural and enhanced ponds and sloughs, although currently there is no irrigated pasture on the property.

## Additional Information:

1. **Development Potential:** Property is zoned for 160-acre minimum. The northern 1,153 acres is subject to a California Land Conservation Agreement ("Williamson Act"). However, the parcels could be subdivided further based on historic entitlements.

2. **Existing Structures/Activities:** Currently there are no residences or permanent structures on the property. The only notable activity is agricultural production (livestock grazing).

3. **Adjacency to Other Conservation Lands:** The property is directly adjacent to 992-acre Garden Bar Preserve (to the west/downstream), permanently preserved by Placer Land Trust and the landowner through a perpetual conservation easement. The property is also directly adjacent to 255 acres on both sides of the Bear River owned by the U.S. Bureau of Land Management. The property is very near to the 313-acre Liberty Ranch Big Hill Preserve (to the south), permanently preserved by Placer Land Trust and

the landowner through a perpetual conservation easement, as well as other lands preserved by Placer Land Trust (Taylor Ranch Preserve, Kotomyan Big Hill Preserve, Shutamul Bear River Preserve, etc) and Placer County (Hidden Falls Regional Park).

4. **Areas of Concern:** There are a few areas of the property that show signs of erosion or seepage and are areas of concern for water quality or habitat degradation, property damage, and safety.

   "AC1" in Attachment 'B'. The main canal/drainage that connects a series of ponds along the south boundary of the north parcel is deeply incised in sections and is showing extensive erosion; this sediment is potentially being transported into the wetlands and ponds downstream.

   "AC2" and "AC3" in Attachment 'B'. There are two ranch roads that cut through pond and wetland features and are eroding; these roads are likely to increase sedimentation in the adjacent waterways.

   "AC4" in Attachment 'B'. One pond on the property has been augmented by a levee constructed to provide an easily accessible ranch road on the south boundary of the property. This levee is seeping or leaking at the base, where the fill dirt and bedrock meet, and the seepage has created a small wetland on the south side of the levee. The water coming through the levee may weaken and cause failure of the levee. If the levee fails a huge amount of sediment, fill, and other material could end up being washed into the pond system, which could destroy or disrupt the road, damage water quality, and destroy vegetation. If the failure of the levee were sudden, it could possibly even injure people, livestock and wildlife.

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## ACKNOWLEDGEMENT OF PROPERTY CONDITION

In compliance with Section 1.170A-14(g)(5) of the federal tax regulations, the undersigned accept and acknowledge that this Baseline Documentation Report is an accurate representation of the property at the time the conservation easement was transferred by the grantor to the grantee.

**Grantee: Placer County**

By: Loren E. Clark Date: 12-20-10

Loren E. Clark, Assistant Director of Community Development/Resource Agency

**Grantor (Property Owner): Trust for Public Land**

By: _____ Date: 12-16-10

GILMAN MILLER, COUNSEL

**Interested Third Party: Placer Land Trust**

By: _____ Date: 12-20-10

Jeff Darlington, Executive Director

**ATTACHMENTS:**

Attachment A – Aerial Site Map

Attachment B – Relevant Features Map

Attachment C – Ground Level Photography

Note: Attachments A, B and C are not recorded, but are available for review at:

Placer County Department of Facility Services
Property Management Division
11476 C Avenue
Auburn, Ca 95603
(530) 886-4960

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

State of California )

)ss.

County of PLACER )

On December 20 2010 before me, DEBORAH K. YUE, Notary Public, personally appeared Jessica Pierce----------, who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Deborah K Yue (Seal)

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

State of California )

)ss.

County of Placer )

On December 20 2010 before me, Deborah K. Yue, Notary Public, personally appeared LOREN E. CLARK, who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/the~~y executed the same in his/~~her/the~~ir authorized capacity(~~ies~~), and that by his/~~her/the~~ir signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Deborah K Yue (Seal)

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

## ACCEPTANCE

This is to certify that the interest in real property described in this Deed of Conservation Easement is hereby accepted on behalf of the public by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to the authority conferred by Resolution No. 2010-346 as approved by the County Board of Supervisors on December 14, 2010, and the Grantee consents to the recordation thereof by its duly authorized agent.

Signature

Dated 12/17/2010

James Durfee
Director of Facility Services

# Before the Board of Supervisors
# County of Placer, State of California

**In the matter of:** A Resolution authorizing the Director of Facility Services, or his designee, to execute all necessary documents and to take all actions associated with the acquisition of the conservation easement over portions of the Bruin Ranch, located in the Auburn Valley/Big Hill area of Placer County and the acquisition of an irrevocable offer of dedication for a conservation easement over property known as the Doty Ravine Preserve in western Placer County.

**Resol. No:** 2010-346

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST

ANN HOLMAN
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

The following **RESOLUTION** was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held December 14, 2010 by the following vote on roll call:

Ayes: ROCKHOLM, WEYGANDT, HOLMES, MONTGOMERY, UHLER

Noes: NONE

Absent: NONE

Signed and approved by me after its passage.

Chairman, Board of Supervisors

Attest: Clerk of said Board

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**WHEREAS**, Harvego Real Estate, LLC is the owner of APNs 026-020-009, 026-020-011, 026-020-012, 026-020-013, 026-061-001, 026-061-003, 026-061-007, 026-061-051, 026-061-068 comprising of approximately 1,773± acres, located in the Auburn Valley/Big Hill area of Placer County California (the "Property"); and

**WHEREAS,** Harvego Real Estate, LLC desires to sell this Property to the Trust for Public Land; and

**WHEREAS,** the Trust for Public Land desires to sell a conservation easement to the County of Placer (hereinafter "County") to preserve recreation, agricultural, wildlife habitat, cultural and open space conservation/mitigation values; and

**WHEREAS**, the Placer Land Trust is the owner of APNs 020-162-020, 020-162-022 and 020-150-027 comprising approximately 427 acres of property known as the Doty Ravine Preserve located in western Placer County California (the "Preserve"); and

**WHEREAS,** the Placer Land Trust desires to grant to County an irrevocable offer of dedication for a habitat conservation easement over the Preserve; and

**WHEREAS,** a conservation easement over the Preserve will preserve wildlife habitat, cultural and open space conservation/mitigation values of great importance to the County, the people of the State of California and the people of the United States; and

**WHEREAS,** the Purchase Price to acquire conservation easements over the Property and Preserve is Five Million and No/100 Dollars ($5,000,000.00) (the "Purchase Price"); and

**WHEREAS,** upon the Trust for Public Land's receipt of grant funds from the California Wildlife Conservation Board for acquisition of the Property, the County desires to acquire the conservation easements over the Property and the Preserve for the Purchase Price.

**NOW THEREFORE, BE IT RESOLVED**, that the Placer County Board of Supervisors does hereby authorize the Director of Facility Services, or his designee to execute on behalf of the County all documentation necessary to acquire a conservation easement over the Property and irrevocable offer of dedication of a conservation easement over the Preserve as described herein, and to take all other actions necessary to acquire the subject property interests; does hereby authorize the disbursement of County funds necessary to complete the transaction; and does hereby consent to the acceptance and recordation of the deeds, easements, and related documents for said property interests.

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

PLACER, County Recorder
JIM MCCAULEY
DOC- 2010-0106118-00
PLACER TITLE - RECORDING
TUESDAY, DEC 21, 2010 8:00:00

| | | | | | |
|---|---|---|---|---|---|
| MIC | $3.00 | AUT | $9.00 | SBS | $8.00 |
| ERD | $1.00 | RED | $1.00 | REC | $17.00 |
| ADD | $0.00 | | | PCOR | $20.00 |

Ttl Pd $59.00 Rcpt # 02095007
clkghlmfj1/GV/1-9

RECORDING REQUESTED BY,
AND WHEN RECORDED MAIL TO:

The Trust for Public Land
101 Montgomery Street, 9th Floor
San Francisco, CA 94104
Attn: Legal Department

MAIL TAX STATEMENTS TO SAME
ADDRESS AS ABOVE

# 102-32825 DY

Space above this line for Recorder's Use Only
APN(s): 026-020-012, -013, -009, -011 and 026-061-003, -001, -068, -007, and -051

GRANT DEED

AMOUNT OF REAL PROPERTY TRANSFER SHOWN ON SEPARATE PAPER, PLACER COUNTY CODE SECTION 4.08.150

For good and valuable consideration, the receipt of which is hereby acknowledged, **HARVEGO REAL ESTATE LLC**, a California limited liability company ("**Grantor**"), does hereby grant and convey to **THE TRUST FOR PUBLIC LAND**, a California nonprofit public benefit corporation ("**Grantee**"), all the real property situated in the County of Placer, State of California, described at Exhibit A attached hereto and incorporated herein by this reference ("Property").

TO HAVE AND TO HOLD, the above granted and described Property, together with all tenements, hereditaments, and appurtenances, including leases, improvements, fixtures, timber, water, crops, oil, gas and minerals located in, under, and on it, and all rights appurtenant to it, including but not limited to timber rights, water rights, grazing rights, access rights and oil, gas and mineral rights, development rights, air rights, and all other rights, privileges, licenses, and permits owned by Grantor and in any way related to or accruing to the use and benefit of that real property, unto Grantee, and its assigns.

EXCEPT that Grantor, for itself and its successors and assigns, hereby reserves easements on the Property as provided in that certain Reciprocal Easement Agreement between Grantor and Grantee recorded in the official records of Placer County concurrently herewith.

IN WITNESS WHEREOF, Grantor has executed this instrument this 17 day of December, 2010.

**Harvego Real Estate LLC,**
a California limited liability company
2356 Gold Meadow Way
Suite 201
Gold River, CA 95670

By: Lloyd H. Harvego
Lloyd H. Harvego, Manager of Harvego Enterprises, LLC
Harvego Enterprises, LLC, Manager of Harvego Real Estate, LLC

Date: December 17, 2010

ACKNOWLEDGMENT

State of California
County of PLACER

On 12-17-10 before me, DEBORAH K.YUE, **Notary Public** personally appeared LLOYD H. HARVEGO, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/~~she/the~~y executed the same in his/~~her/their~~ authorized capacity, and that by his/~~her/the~~ir signature(~~s~~) on the instrument the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**
DEBORAH K. YUE

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

EXHIBIT A

LEGAL DESCRIPTION

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OFPLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**PARCEL ONE: APNS: 026-020-012 AND 013**

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST,M.D.B. & M., THAT LIE SOUTHEASTERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER CORNER OF SAID SECTION 25.

**PARCEL TWO: APNS: 026-020-009 AND 011**

THOSE PORTIONS OF SECTIONS 25, 35 AND 36, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B.& M., WHICH ARE BOUNDED AS FOLLOWS:

ON THE NORTHWEST BY THE CENTER LINE OF THE BEAR RIVER; ON THE EAST BY THE EAST LINE OF SAID SECTION 25; ON THE SOUTHEAST BY A LINE DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE NORTHEASTERLY IN A DIRECT LINE TO THE SOUTHEAST CORNER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36; THENCE CONTINUING IN A DIRECT LINE NORTHEASTERLY TO THE EAST ONE-QUARTER (1/4) CORNER OF SAID SECTION 25; AND ON THE WEST BY THE WEST LINE OF SAID SECTION 35.

EXCEPTING THEREFROM THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 36.

ALSO EXCEPTING THEREFROM ALL THAT PORTION OF THE SOUTHWEST QUARTER (1/4) OF THE SOUTHWEST QUARTER (1/4) OF SECTION 25, TOWNSHIP 14 NORTH, RANGE 7 EAST, M.D.B.& M., WHICH LIES IN PLACER COUNTY.

**PARCEL THREE: APN: 026-061-003**

THAT PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, DESCRIBED AS BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 3; THENCE SOUTH ALONG THE EAST LINE THEREOF 52.60 CHAINS; THENCE NORTH 37 DEGREES 30 MINUTES WEST 66.08 CHAINS TO THE NORTH ONE-QUARTER CORNER OF SECTION 3; THENCE EAST ALONG THE NORTH LINE OF SECTION 3, A DISTANCE OF 40 CHAINS TO THE POINT OF BEGINNING.

**PARCEL FOUR:**

EASEMENTS FOR INGRESS, EGRESS AND UTILITIES APPURTENANT TO PARCELS ONE THROUGH NINE ABOVE AS SET FORTH AND DESCRIBED IN THOSE CERTAIN DEEDS RECORDED JUNE 19, 1998, AS INSTRUMENT NO, 98-0047099, 98-0047100, 98-0047102, AND 98-0047103, OFFICIAL RECORDS, AND AS AMENDED BY AN INSTRUMENT RECORDED APRIL 6, 2000 AS INSTRUMENT NO. 2000-0023218

**PARCEL 5: APNS: 026-061-001 AND 068 (PORTION)**

BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., AND RUNNING THENCE WEST ON THE LINE DIVIDING THE SOUTH HALF OF SAID SECTION 3 INTO NORTH AND SOUTH HALVES TO THE WEST LINE OF SAID SECTION 3; THENCE NORTH ALONG THE WEST LINE OF SAID SECTION 3, TO THE NORTHWEST CORNER OF SAID SECTION 3; THENCE EAST ALONG THE TOWNSHIP LINE, THE SAME BEING THE NORTH SECTION LINE OF SAID SECTION 3 TO THE POINT BEING COINCIDENT WITH THE NORTHEAST CORNER OF LOT 2 (INCORRECTLY REFERRED TO AS LOT 21 IN DEED THAT RECORDED FEBRUARY 15, 2005 AS INSTRUMENT NO. 2005-0017339) OF THE NORTHWEST FRACTIONAL QUARTER OF SAID SECTION 3; THENCE SOUTH 37 DEGREES 30' EAST 66 CHAINS AND EIGHT LINKS TO A POINT ON THE EAST LINE OF SAID SECTION 3, 52 CHAINS AND SIXTY LINKS SOUTH OF THE NORTHEAST CORNER OF SAID SECTION 3; AND THENCE SOUTH ON THE EAST LINE OF SAID SECTION 3 TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION LYING OUTSIDE OF PLACER COUNTY.

**PARCEL 6: APNS: 026-061-007 AND 051**

THE WEST HALF OF THE SOUTH HALF OF THE SOUTH HALF OF SECTION 3 IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.&M.

**PARCEL 7: APN: 026-061-068 (PORTION)**

THAT PARCEL OF LAND DESCRIBED IN DEED TO ALLAN Y. WU RECORDED ON MARCH 4, 1991 IN THE OFFICE OF THE COUNTY RECORDER OF PLACER COUNTY ON DOCUMENT NUMBER 91-011403, OFFICIAL RECORDS, BEING A PORTION OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, MOUNT DIABLO BASE AND MERIDIAN, PLACER COUNTY, CALIFORNIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST ONE-HALF OF THE SOUTH ONE-HALF OF THE SOUTH ONE-HALF OF SECTION 3, TOWNSHIP 13 NORTH, RANGE 7 EAST, OF THE MOUNT DIABLO BASE AND MERIDIAN.

**PARCEL 8:**

A 50' NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED IN BOOK 1806, AT PAGE 243, ET SEQ, PLACER COUNTY OFFICIAL RECORDS, AS MORE PARTICULARLY DESCRIBED IN PARAGRAPH (B), AT PAGE 244 OF SAID INSTRUMENT.

**PARCEL 9:**

A 50' NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED IN BOOK, 1806, AT PAGE 243, ET SEQ, PLACER COUNTY OFFICIAL RECORDS, AS MORE PARTICULARLY DESCRIBED IN PARAGRAPH (A) AT PAGE 244 OF SAID INSTRUMENT.

**PARCEL 10:**

A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH FOR INGRESS AND EGRESS APPURTENANT TO PARCELS SIX AND SEVEN ABOVE AS GRANTED TO CAROL R. WULFF, ET AL, IN INSTRUMENT RECORDED ON APRIL 25, 1977, IN BOOK 1832, AT PAGE 385, PLACER COUNTY OFFICIAL RECORDS.

**PARCEL 11:**

AN EASEMENT 50 FEET IN WIDTH APPURTENANT TO PARCELS SIX AND SEVEN ABOVE OVER AN EXISTING ROADWAY LOCATED IN THE WEST HALF OF SECTION 10, THE NORTHEAST QUARTER OF SECTION 10, AND THE WEST HALF OF SECTION 11, ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.& M., THE CENTERLINE OF SAID EASEMENT BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION 10 FROM WHICH THE NORTHWEST CORNER OF SAID SECTION 10 BEARS NORTH 00 DEGREES 10'06" WEST 2133.23 FEET; THENCE FROM SAID POINT OF BEGINNING FOLLOWING ALONG THE CENTERLINE OF AN EXISTING ROADWAY THE FOLLOWING COURSES AND DISTANCES: SOUTH 64 DEGREES 38'04" EAST 231.43 FEET; SOUTH 45 DEGREES 43'10" EAST 426.44 FEET; SOUTH 69 DEGREES 45'45" EAST 286.51; NORTH 53 DEGREES 59'10" EAST 438.84 FEET; SOUTH 77 DEGREES 52'03" EAST 303.33 FEET; SOUTH 70 DEGREES 21'07" EAST 203.08 FEET; SOUTH 59 DEGREES 39'03" EAST 193.48 FEET; SOUTH 75 DEGREES 57'57" EAST 203.25 FEET; SOUTH 83 DEGREES 37'59" EAST 275.43 FEET; SOUTH 83 DEGREES 11'57" EAST 580.80 FEET; SOUTH 88 DEGREES 14'07" EAST 913.74 FEET; NORTH 53 DEGREES 34'28" EAST 156.51 FEET; NORTH 61 DEGREES 24'16" EAST 566.00 FEET; NORTH 48 DEGREES 27'58" EAST 370.45 FEET; NORTH 62 DEGREES 00'58" EAST 243.94 FEET; NORTH 65 DEGREES 03'28" EAST 258.89 FEET; SOUTH 77 DEGREES 10'07" EAST 258.05 FEET; SOUTH 50 DEGREES 56'52" EAST 579.20 FEET; SOUTH 22 DEGREES 21'03" WEST 221.03 FEET; SOUTH 44 DEGREES 08'57" EAST 168.60 FEET; SOUTH 61 DEGREES 16'46" EAST 152.83 FEET; SOUTH 88 DEGREES 31'02" EAST 329.19 FEET; NORTH 74 DEGREES 40'08" EAST 168.46 FEET; SOUTH 83 DEGREES 12'09" EAST 209.37 FEET; SOUTH 58 DEGREES 39'39" EAST 205.29 FEET; SOUTH 21 DEGREES 32'49" EAST 414.40 FEET; SOUTH 13 DEGREES 18'24" EAST 268.18 FEET; TO THE END OF THE EASEMENT HEREIN DESCRIBED AS GRANTED IN DEED RECORDED MARCH 24, 1995 AS INSTRUMENT NO. 95-014536.

SAID EASEMENT BEING THE SAME EASEMENT DESCRIBED FIRST IN EXHIBITS A, B, AND C OF THE PARCEL MAP WAIVER NO. P73170W RECORDED APRIL 8, 1980 IN BOOK 2245, PAGE 218 OFFICIAL RECORDS.

**PARCEL 12:**

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS AS GRANTED IN EASEMENT DEEDS RECORDED FEBRUARY 3, 2005 AS INSTRUMENT NO. 2005-0013289 AND JUNE 24, 2005 AS INSTRUMENT NO. 2005-0081571 OFFICIAL RECORDS.

**PARCEL 13:**

A NON-EXCLUSIVE EASEMENT FOR A ROADWAY AND UTILITIES OVER LAND DESCRIBED AS FOLLOWS:

A PORTION OF THAT TRACT OF LAND GRANTED TO THE FLORENCE P.C. FANG ON SEPTEMBER 16, 2003 RECORDED AS DOCUMENT NO. 2003-0158548, OFFICIAL RECORDS OF PLACER COUNTY, LOCATED IN SECTION 10, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.M., DESCRIBED AS FOLLOWS:

A STRIP OF LAND 50 FOOT WIDE LYING 25 FEET EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE NORTHERLY LINE OF THE ABOVE DESCRIBED TRACT OF LAND, FROM SAID POINT OF BEGINNING THE NORTHWEST CORNER OF SAID SECTION 10 BEARS SOUTH 89 DEGREES 17 MINUTES 05 SECONDS WEST A DISTANCE OF 1720.62 FEET; THENCE ALONG SAID PROPOSED CENTERLINE SOUTH 33 DEGREES 40 MINUTES 30 SECONDS EAST A DISTANCE OF 410.06 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 10 DEGREES 15 MINUTES 40 SECONDS A LENGTH OF 107.45 FEET AND A CHORD BEARING SOUTH 38 DEGREES 48 MINUTES 20 SECONDS EAST A DISTANCE OF 107.31 FEET; THENCE SOUTH 43 DEGREES 56 MINUTES 10 SECONDS EAST A DISTANCE OF 173.76 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 12 DEGREES 41 MINUTES 32 SECONDS, A LEGNTH OF 132.91 FEET AND A CHORD BEARING SOUTH 37 DEGREES 35 MINUTES 24 SECONDS EAST A DISTANCE OF 132.64 FEET; THENCE SOUTH 31 DEGREES 14 MINUTES 38 SECONDS EAST A DISTANCE OF 265.49 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE LEFT, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 1010.00 FEET, A CENTRAL ANGLE OF 15 DEGREES 16 MINUTES 41 SECONDS, A LENGTH OF 269.32 FEET AND A CHORD BEARING SOUTH 38 DEGREES 52 MINUTES 58 SECONDS EAST A DISTANCE OF 268.52 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF 250.00 FEET, A CENTRAL ANGLE OF 46 DEGREES 39 MINUTES 20 SECONDS, A LENGTH OF 203.57 FEET AND A CHORD BEARING SOUTH 23 DEGREES 11 MINUTES 38 SECONDS EAST A DISTANCE OF 198.00 FEET; THENCE SOUTH 00 DEGREES 08 MINUTES 02 SECONDS WEST A DISTANCE OF 119.96 FEET; THENCE ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT, CONCAVE WESTERLY, HAVING A RADIUS OF 600.00 FEET, A CENTRAL ANGLE OF 16 DEGREES 02 MINUTES 55 SECONDS A LENGTH OF 168.06 FEET AND A CHORD BEARING SOUTH 08 DEGREES 09 MINUTES 30 SECONDS WEST A DISTANCE OF 167.51 FEET; THENCE ALONG THE ARC OF A REVERSE CURVE TO THE LEFT, CONCAVE EASTERLY, HAVING A RADIUS OF 800.00 FEET, A CENTRAL

ANGLE OF 23 DEGREES 37 MINUTES 44 SECONDS, A LENGTH OF 329.92 FEET AND A CHORD BEARING SOUTH 04 DEGREES 22 MINUTES 05 SECONDS WEST A DISTANCE OF 327.59 FEET; THENCE SOUTH 07 DEGREES 26 MINUTES 47 SECONDS EAST A DISTANCE OF 475.59 FEET TO THE CENTERLINE OF AN EXISTING 50 FOOT WIDE ROADWAY AND PUBLIC UTILITY EASEMENT AS RECORDED IN BOOK 2245, AT PAGE 218, OFFICIAL RECORDS OF PLACER COUNTY.

THE SIDELINES OF SAID 50 FOOT WIDE STRIP OF LAND ARE TO BE LENGTHENED OR SHORTENED AS NECESSARY TO TERMINATE AT SAID NORTHERLY BOUNDARY AND THE NORTH BOUNDARY OF SAID EXISTING ROADWAY AND PUBLIC UTILITY EASEMENT.

Project Name: Harvego Trail Connector

PLACER, County Recorder
JIM MCCAULEY
DOC- 2014-0000724-00

MONDAY, JAN 6, 2014 14:12:05
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02330571
CLKCNMLFJ1/ST/1-5

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

## COUNTY OF PLACER

# QUITCLAIM DEED

The COUNTY OF PLACER does hereby REMISE, RELEASE AND FOREVER QUITCLAIM TO,
**Harvego Real Estate, LLC, a California Limited Liability Company**
all that real property situated in the County of Placer, State of California, bounded and described as follows:

**(See Attached Exhibits "A" & "B")**

PLACER COUNTY

Dated this 30th Day of December, 2013

Mary Dietrich
Sign name

Mary Dietrich, Director, Facility Services
Print name and title

See following page for Acknowledgement

Revised 3/09

ST

# ACKNOWLEDGEMENT

State of California
County of Placer

On 12-30-13 before me,
Shawna Lee Howard, Notary Public (name, title),
personally appeared Mary Dietrich
who proved to me on the basis of satisfactory evidence to be the person(~~s~~)
whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to
me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~),
and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the
entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NRO1 SHAWNA LEE HOWARD
COMM. #1884867
Notary Public - California
Placer County
My Comm. Expires Apr. 2, 2014 NRO1

(Seal)

Shawna Howard
Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)
  - TITLE(S)
  - COMPANY
- ☐ PARTNER(S)
  - PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  - PRINCIPAL(S)
- ☐ TRUSTEE(S)
  - TRUST
- ☐ OTHER
  - TITLE(S)
  - ENTITY(IES) REPRESENTATIVE

**EXHIBIT "A"**

A portion of that certain one hundred and eighty eight (188.00) foot wide Trail Easement described in the "County of Placer Offer of Dedication – Trail Easement" recorded as Document No. 2012-0074900, being a portion of Parcel 3 as shown on that map filed in Book 35 of Parcel Maps, at Page 12, Official Records of Placer County, situated in Section 2, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California described as follows:

All of said 188.00 foot wide trail easement;

EXCEPTING THEREFROM, a fifteen (15.00) foot wide strip of land lying seven and one half (7.50) feet on each side if the following described centerline:

Beginning at a point on the South boundary of said Parcel 3, being the South line of said Section 2, from which, the South Quarter Corner of said Section 2 bears North 89°49'29" East, 835.64 feet;

Thence from said Point of Beginning, leaving said South boundary, along the following five (5) courses and distances:

1. North 69°45'42" West, 21.67 feet;
2. North 73°37'23" West, 28.43 feet;
3. North 66°14'56" West, 23.73 feet;
4. North 36°28'21" West, 7.10 feet; and
5. North 00°20'34" East, 12.78 feet more or less to a point on the centerline of that certain 40' ingress, egress and utility easement (Easement 3) of that Reciprocal Easement Agreement described in Document No. 2010-0106119, Official Records of Placer County.

The sidelines of said strip are to be prolonged or shortened to terminate southerly on the South boundary of said Parcel 3 and to terminate northerly on the southerly line of said 40' easement.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 5-13-2013

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-13
STATE OF CALIFORNIA

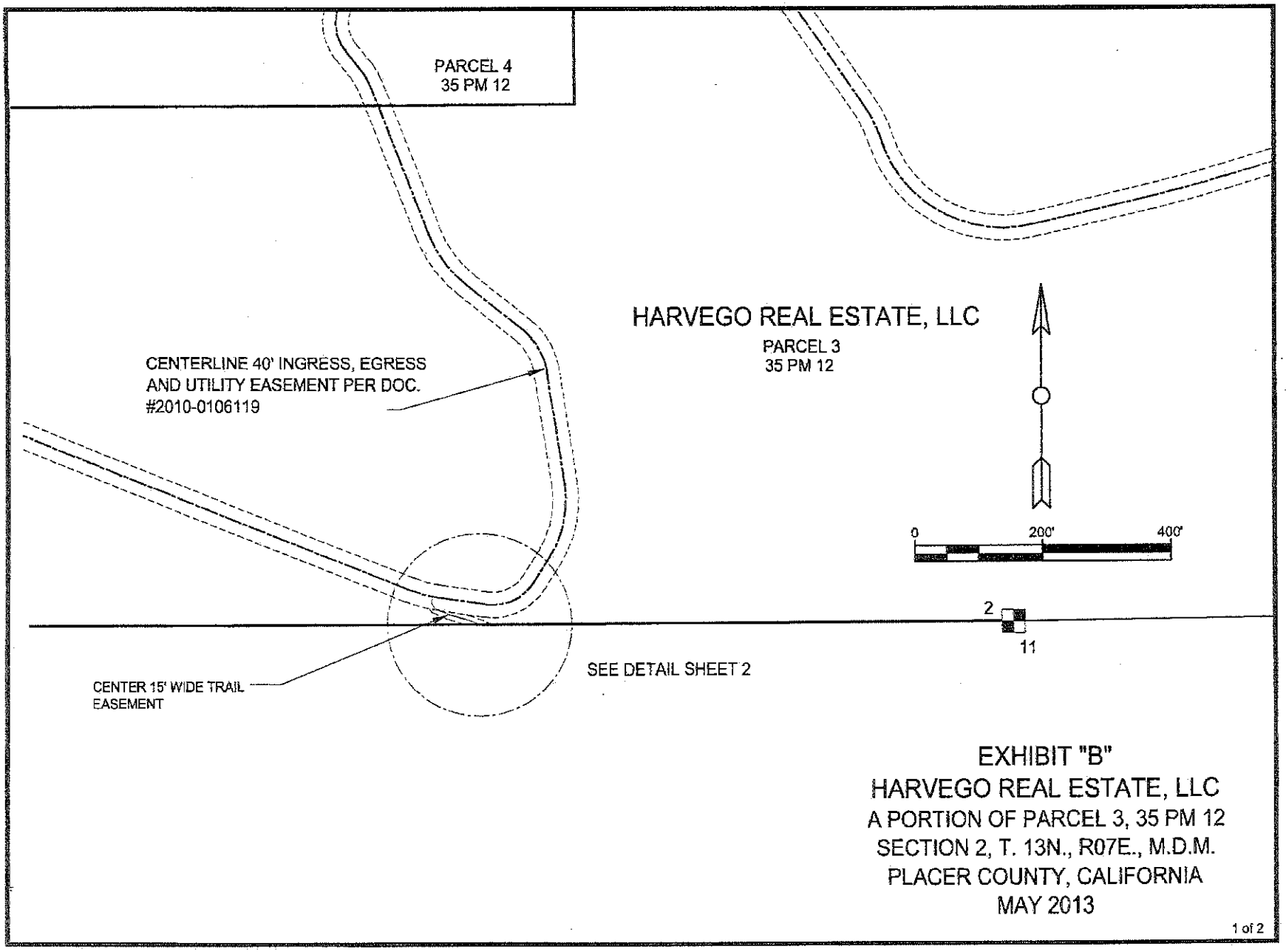
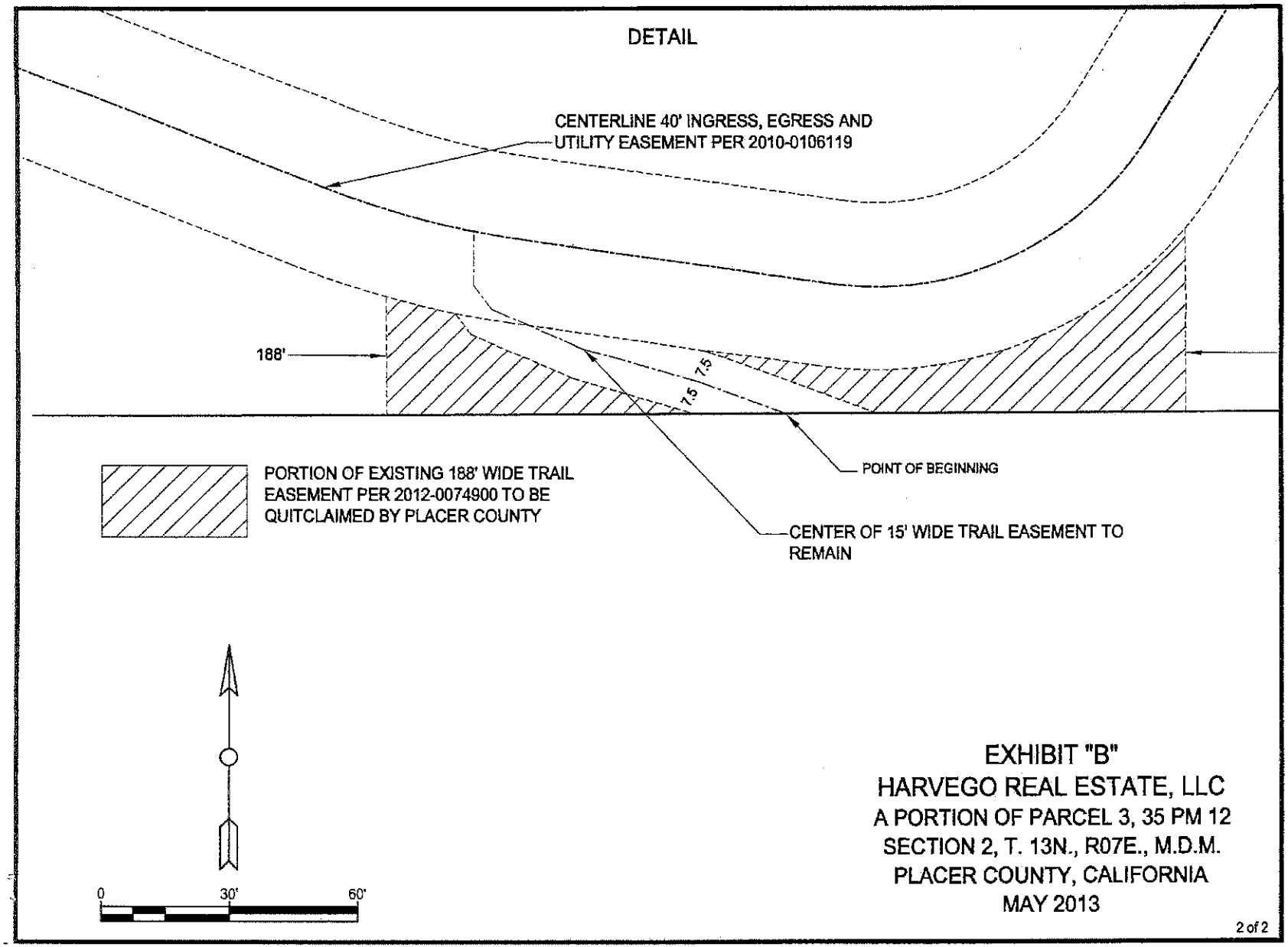



EXHIBIT "B"
HARVEGO REAL ESTATE, LLC
A PORTION OF PARCEL 3, 35 PM 12
SECTION 2, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA
MAY 2013



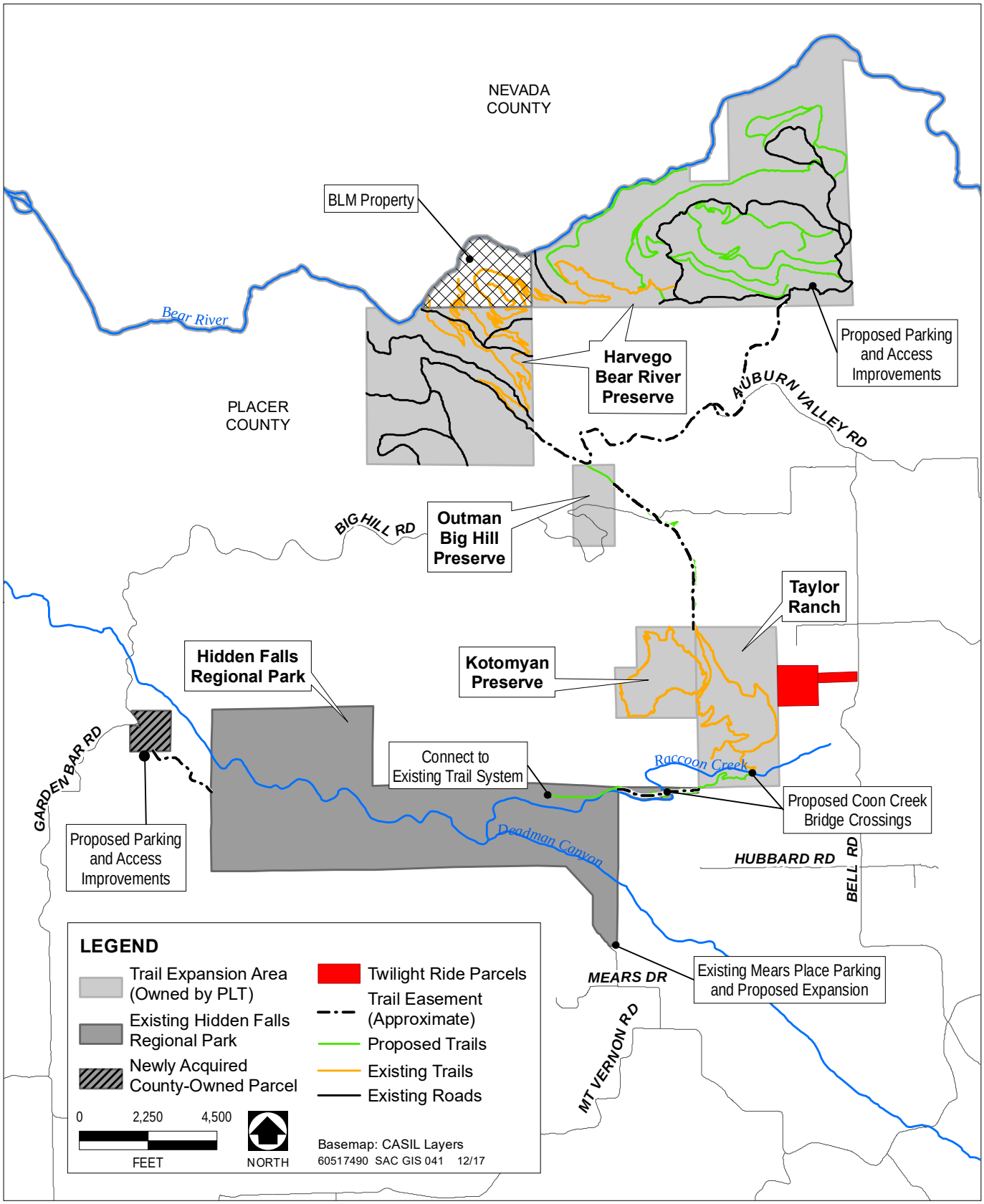
Revised 3/09


DETAIL
CENTERLINE 40' INGRESS, EGRESS AND UTILITY EASEMENT PER 2010-0106119
188'
7.5
7.5
POINT OF BEGINNING
PORTION OF EXISTING 188' WIDE TRAIL EASEMENT PER 2012-0074900 TO BE QUITCLAIMED BY PLACER COUNTY
CENTER OF 15' WIDE TRAIL EASEMENT TO REMAIN
0
30'
60'
EXHIBIT "B"
HARVEGO REAL ESTATE, LLC
A PORTION OF PARCEL 3, 35 PM 12
SECTION 2, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA
MAY 2013
2 of 2

Revised 3/09

# AUBURN AREA PROPERTY ACQUISITION

| Property | Acreage | | Board of Supervisors Approval Date | Close of Escrow Date | Purchase Price | Total Project Cost | Total Project Cost Detail | Total County Funding | Open Space County Funding | Tree Mitigation County Funding | Funding Partner | Funding Partner Notes | County Interest Type | Trail Rights | Conservation Easement Rights | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Hidden Falls - Didion** | 220.00 | acres | 10/5/2004 | 11/5/2004 | $ 767,500 | $ 792,500 | $792,500 includes escrow and legal fees $25,000 | $ 792,500 | $ 792,500 | | | | Fee | | | |
| **Hidden Falls - Spears** | 961.00 | acres | 11/18/2003 | 12/23/2003 | $ 3,500,000 | $ 3,525,000 | $3,525,000 includes escrow , title and legal fees $25,000 | $ 2,745,934 | $ 2,745,934 | | $ 779,066 | $250,000 Sierra Nevada Cascade Grant - Water Conservation Grant $204,066 - Riparian Riverene Grant $325,000 | Fee | | | |
| **Haddad** | 11.04 | acres | 4/23/2013 | 12/23/2013 | $ 165,600 | $ 185,250 | | $ 185,250 | $ 164,340 | $ 20,910 | | | Fee | | | |
| **Campbell** | 11.90 | acres | 4/23/2013 | 12/23/2013 | $ 125,000 | $ 139,750 | $325,000 this includes escrow, professional and legal fees ($34,400) | $ 139,750 | $ 123,975 | $ 15,775 | n/a | | Fee | | 5. 4 of the 11.90 acres acres are Purchased Conservation Easement | |
| **Loudon** | 0.20 | acres | 4/23/2013 | 12/23/2013 | | | | | | | $ 7,140 | Placer Land Trust (PLT) $7,140 installed fence | Easement | X | | |
| **Kotomyan Reserve - Taylor** | 321.00 | acres | 3/20/2007 | Deed - Trail Easement 6/21/2012 | $ 2,240,000 | $ 2,240,000 | | $ 285,000 | | $ 285,000 | $ 1,955,000 | Sierra Nevada Conservency (SNC) $825,000, Wildlife Conservation Board (WCB) $760,000, Cal Trans Env Mit Prog $250,000, Cal Wildlife $120,000 | Easement | X | | PLT Purchased Fee Title |
| **Liberty Ranch - Freiheit** | 313.00 | acres | 3/20/2007 | Deed - Conservation Easement - 10/17/2007; Funding Agreement 10/17/2007, MPTE- 11/27/2012 | $ 1,300,000 | $ 1,300,000 | | $ 315,000 | $ 315,000 | | $ 985,000 | SNC-$600,000, WCB-$235,000, California Wildlife Foundation- $150,000 | Easement | X | CE | |
| **Bruin Ranch -Harvego** | 1,773.00 | acres | 12/14/2010 | CE 12/21/2010 | $ 5,000,000 | $ 5,000,000 | | $ 5,000,000 | $ 4,000,000 | $ 1,000,000 | | Separate Transaction $4.5 million WCB & PLT Acquired Fee Title $9.5 million total | Easement | X | CE | |
| **Outman - Big Hill- Johnston** | 80.00 | acres | 6/19/2012 | Funding Agreement 8/17/2012 | $ 475,000 | $ 475,000 | | $ 125,000 | $ 125,000 | | $ 350,000 | Cal Trans/Env Mit Project - $350,000 | Easement | X | | PLT Acquired Fee Title |
| **Ronald Spears** | 39.70 | acres | 2/9/2016 | 8/16/2016 | $ 375,000 | $ 433,300 | $433,300 includes $25,000 from RES for escrow and legal fees | $ 433,300 | $ 33,300 | $ 375,000 | | | Fee | X | | |
| **Totals** | 3,730.84 | acres | | | $ 13,948,100 | $ 14,090,800 | | $ 10,021,734 | $ 8,300,049 | $ 1,696,685 | $ 4,076,206 | | | | | |




Source: Placer County 2017, PLT 2017

Figure 3: Project Map

DRAFT

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

PLACER, County Recorder
JIM MCCAULEY
DOC- 2013-0116646-00
PLACER TITLE - RECORDING
MONDAY, DEC 23, 2013 14:36:15
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02328521
CLKCNMLFJ1/JC/1-25

RECORDING REQUESTED BY:
County of Placer
Department of Facility Services

MAIL TO:
County of Placer
Department of Facility Services
ATTN: Property Manager
11476 C Avenue
Auburn CA 95603

DOCUMENTARY TRANSFER TAX $ 0
_____Computed on full value of property conveyed OR
_____Value less remaining encumbrances
Signature of declarant
____ Unincorporated area City of _____
APN#

(Exempt from Recording Fees – Govt. Code T7383)

# Deed of Conservation Easement

THIS DEED OF CONSERVATION EASEMENT (the "Easement") is made by Donald and Valerie Campbell, husband and wife as Joint Tenant ("Grantor"), in favor of the County of Placer, a political subdivision of the State of California ("Grantee"). Grantor and Grantee are sometimes hereinafter each singularly referred to as "Party" and collectively referred to as the "Parties."

## RECITALS

WHEREAS, Grantor and County have entered into an Agreement for Purchase and Sale wherein the Grantee has acquired approximately 4.7 acres of Grantor's property at the northern portion of Assessor Parcel No. 026-080-059, hereinafter the "New Property 1", resulting in Grantor's property being comprised of approximately 21.8 acres, hereinafter the "Remainder Property 1". The County has also acquired approximately 1.8 acres of Grantor's property at the northern portion of Assessor Parcel No. 026-080-060, hereinafter the "New Property 2", resulting in Grantor's property being comprised of approximately 19.2 acres, hereinafter the "Remainder Property 2".

WHEREAS, the Agreement for Purchase and Sale provides for the grant of a Deed of Conservation Easement comprised of approximately 5.4 acres over the northern portion of Remainder Property 1.

WHEREAS, the Remainder Property 1 is zoned Farm combining a Building Site minimum site size of 40 acres (F-B-X-40 acres), and has a General Plan designation of Agriculture/Timberland 40 acre minimum; and

WHEREAS, the Remainder Property 1 possesses conservation values including natural, habitat, wildlife, recreational, agricultural, scenic, open space and cultural values of great importance to Grantee, the people of Placer County and the people of the State of California; and

WHEREAS, the Grantee desires to acquire a conservation easement over the 5.4-acre portion of the Remainder Property 1, hereinafter the "Easement Property" as described in Exhibit A-1 and depicted in Exhibit A-2 attached hereto.

WHEREAS, the Grantor desires to convey to Grantee a Conservation Easement over the Easement Property; and

WHEREAS, Grantor intends, as owner of the Easement Property, to convey the right to assure that the aforementioned values are preserved and protected in perpetuity over the Easement Property, subject to the terms of this Easement; and

WHEREAS, Grantee is a governmental entity identified in Civil Code Section 815.3(b) and otherwise authorized to acquire and hold title to real property pursuant to Civil Code Sections 815 et. seq. and other provisions of California law;

AGREEMENT

NOW, THEREFORE, for good and valuable consideration, and in consideration of the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the State of California including Sections 815-816 of the Civil Code, Grantor does hereby deed and convey to Grantee this Easement in perpetuity over the Easement Property of the nature and character and to the extent hereinafter set forth. Grantor also conveys to Grantee all development rights associated with the Property except as hereinafter described.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

1. Purposes of Easement. The purposes of this Easement are to ensure that the Easement Property will be retained in its predominantly natural condition; to preserve, protect, and maintain, in perpetuity the Protected Values of the Easement Property as defined in Section 2, below, except as allowed by this Easement; and to prevent any use of the Property that will impair or interfere with its Protected Values, or impair the ability of the Grantee to achieve specific biological resources goals and objectives and develop a detailed conservation strategy, including specific land management requirements, in conjunction with the Placer County Conservation Plan ("PCCP"), or cause the Easement Property to be unsuitable for use in conjunction with the PCCP, or otherwise cause Grantee to be unable to amend and/or convert this Easement as provided in Section 18, below (the "Purposes").

2. Protected Values. Specific attributes of the Easement Property, which the Easement shall protect and conserve are hereinafter collectively referred to as the "Protected Values", and include but are not limited to:
   a. Unfragmented oak woodland, and riparian open space character of this region by preserving the natural landscape and the scenic values.
   b. Protection from soil erosion and the resultant impacts to water quality on Coon Creek, through land stewardship and application of sound land management practices on the Easement Property.

   Assurance that the Easement Property shall be held and used for the purposes of plant and wildlife habitat preservation, restoration and management, environmental

education and research, and for compatible private uses, all as may be consistent with natural habitat preservation and protection of sensitive natural resources.

3. Affirmative Rights and Interests Conveyed. To accomplish the Purposes of this Easement, the following rights and interests are conveyed to Grantee, its agents, and assigns by this Easement. These rights and interests shall be implemented through an operations and management plan (the "O&M Plan") for the Easement Property to be developed by Grantee:
   a. To identify, preserve and protect in perpetuity the Protected Values.
   b. To enter upon, inspect, observe, and study the Easement Property for the purposes of:
      (1) identifying the uses and practices thereon as necessary to develop the O&M Plan
      (2) monitoring biological resources and the uses and practices regarding the Easement Property to determine whether they are consistent with this Easement,
      (3) assuring restoration, adaptive management, and maintenance activities do not compromise the Protected Values,

      Grantee shall make reasonable efforts to notify Grantor prior to entry on to the Easement Property for these purposes, except when immediately necessary to prevent a violation of the terms of this Easement.
   c. Prior to approval of the O&M Plan, Grantee shall make reasonable efforts to notify Grantor prior to entry on to the Easement Property. Such entry shall be in a manner that will not unreasonably interfere with Grantor's or Grantor's successors' use and enjoyment of the Easement Property.
   d. To prevent any activity or use of the Property that is inconsistent with the Purposes or conservation of the Protected Values and to require the restoration of such areas or features of the Easement Property that may be damaged by any inconsistent activity or use. However, it is not the intent of this Easement to limit Grantor's discretion to employ Grantor's choice of farm, ranch and forestry uses and management practices so long as those uses and practices are otherwise consistent with the terms of this Easement and do not cause the Easement Property to be unsuitable for use in conjunction with the PCCP.
   e. To terminate, extinguish any present and future development rights appurtenant to, allocated, implied, reserved or inherent in the Easement Property.
   f. To amend and/or convert this Easement and convey a habitat conservation easement as provided in Section 18, below.
   g. To convey to Grantee all rights to enjoy access to the Easement Property to the full extent Grantor possesses such rights in order to allow Grantee to exercise its rights under this Easement.

4. Uses and Practices. Grantee and Grantor intend that the Easement Property shall remain as open space land with its primary purpose to further the Purposes described in Section 1. Certain uses and practices consistent with the Purposes of this Easement are set forth in Exhibit B attached hereto and incorporated herein by this reference. Examples of specific uses and practices which are inconsistent with the Purposes of this Easement are set forth in Exhibit C attached hereto and incorporated herein by this reference. The uses and practices set forth in Exhibits B and C are not necessarily exhaustive recitals of



DC
JC

consistent and inconsistent activities, respectively. They are set forth both to establish specific permitted and prohibited activities, and to provide guidance in determining the consistency of other activities with the Purposes of this Easement.

5. Baseline Data. In order to establish the present condition of the Protected Values, Grantee has examined the Easement Property and prepared a report attached hereto as Exhibit D ("Baseline Documentation Report") containing an inventory of the Easement Property's relevant features and condition, its improvements and natural resources (the "Baseline Data"). A copy of the Baseline Documentation Report has been provided to Grantor, and another shall be placed and remain on file with Grantee. The Baseline Documentation Report has been signed by Grantor and Grantee, and thus acknowledged to accurately represent the condition of the Easement Property at the date of the conveyance of this Easement. The Parties intend that the Baseline Data shall be used by Grantee to monitor Grantor's future uses of the Easement Property and practices thereon. The Parties further agree that, in the event a controversy arises with respect to the condition of the Easement Property or a particular resource thereof, the Parties shall not be foreclosed from utilizing any other relevant document, survey, or report to assist in the resolution of the controversy.

6. Grantor's Duties. Grantor shall undertake all necessary actions to perfect Grantee's rights under Section 3 of this Easement, and shall undertake all reasonable actions to protect and maintain the Protected Values.

7. Reserved Rights. Grantor reserves to itself, and to its duly authorized representatives and employees, successors, and assigns, all rights accruing from their ownership of the Easement Property, including the right to engage in, or permit, or invite others to engage in uses of the Easement Property that are not expressly prohibited herein and are not inconsistent with the Purposes of this Easement. Without limiting the generality of the foregoing, the following rights are expressly reserved:
   a. the right to sell or transfer the Remainder Property 1 inclusive of the Easement Property in its entirety, subject to Section 19, below;
   b. all right, title and interest in and to all tributary and non-tributary water, water rights, and related interests in, on, under, or appurtenant to the Easement Property, provided that such water rights are used on the Easement Property in a manner consistent with the Purposes of this Easement;
   c. all right, title and interest in subsurface oil, gas and minerals; provided that the manner of exploration for, and extraction of any oil, gas or minerals shall be only by a subsurface method consistent with the Purposes of this Easement, and shall not damage, impair or endanger the Protected Values of the Easement Property;
   d. recreational activities including but not limited to hunting and fishing in accordance with established game laws and to the extent that such activities are not in conflict with Grantee's uses of the Easement Property, the right to control predatory, invasive, and problem animals (including but not limited to feral pig) by the use of depredation and selective control techniques in accordance with applicable state and federal law;
   e. the ability to restore, create, improve, and maintain habitat and natural resources in accordance with state and federal regulations unless such rights are amended and/or converted through the recordation of an amended easement as provided by Section 18, below;

f. the right to conduct Sustainable Forestry activities on the Easement Property as defined in Exhibit B, including the right to reduce fuel loads to help prevent wildfire consistent with the Purposes of this Easement;
g. The right to engage in agricultural uses of the Easement Property consistent with the Purposes of this Easement in accordance with sound, generally accepted agricultural practices, provided the agricultural uses are compatible with and do not impair the Protected Values, and further provided that the agricultural uses do not result in significant soil degradation, significant pollution or degradation of any surface or subsurface waters, and are consistent with applicable laws. For the purposes of this Easement "agricultural uses" shall be confined to: breeding, raising, pasturing, and grazing livestock of every nature and description for food production; breeding and raising bees; harvesting, forestry in accordance with applicable County, state and federal law;.
h. the right to rent the Easement Property or portions thereof for limited terms for pursuit of permitted uses, provided, however, Grantor shall (1) provide at least sixty (60) days prior written notice to Grantee of its intent to lease any portion of the Remainder Property 1, (2) append to each lease a copy of this Easement, and (3) provide to Grantee a copy of any lease subsequently entered into;
i. educational activities consistent with the Purposes of the Easement.

8. Grantee's Remedies. If Grantee determines that Grantor is in violation of the terms of this Easement or that a violation is threatened, Grantee shall give written notice to Grantor of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Easement Property resulting from any use or activity inconsistent with the Purposes of this Easement, to restore the portion of the Easement Property so injured. If Grantor fails to cure the violation within thirty (30) days after receipt of notice thereof from Grantee, or under circumstances where the violation cannot reasonably be cured within a thirty (30) day period, fail to begin curing such violation within the thirty (30) day period, or fail to continue to diligently cure such violation until finally cured, Grantee may bring an action at law or in equity of court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation by temporary or permanent injunction, to recover any damages to which it may be entitled for violation of the terms of this Easement or injury to any Protected Values, including damages for any loss thereof, and to require the restoration of the Easement Property to the condition that existed prior to any such injury. If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Protected Values of the Easement Property, Grantee may pursue remedies under this paragraph without waiting for the period provided for cure to expire. Grantee's rights under this paragraph apply equally in the event of either actual or threatened violations of the terms of this Easement, and Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this paragraph, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.



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9. Costs of Enforcement. Any reasonable costs incurred by Grantee in enforcing the terms of this Easement against Grantor following a violation by Grantor of the terms of this Easement that remains uncured after the expiration of the cure period, including, without limitation, costs of suit and attorneys' fees, and any costs of restoration necessitated by Grantor's violation of the terms of this Easement shall be borne by Grantor. If Grantor prevails in any action to enforce the terms of this Easement, Grantor's costs of suit, including, without limitation, attorneys' fees, shall be borne by Grantee.

10. Grantee's Discretion. Enforcement of the terms of this Easement shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

11. Acts Beyond Grantor's Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Easement Property resulting from causes beyond Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantor under emergency condition to prevent, abate or mitigate significant injury to the Easement Property resulting from such causes.

12. Costs and Taxes. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep and maintenance of the Remainder Property 1. Grantor shall pay any and all taxes, assessments, fees and charges levied by competent authority on the Remainder Property 1 or on the Easement Property. It is intended that this Easement constitute an enforceable restriction within the meaning or Article XIII Section 8 of the California Constitution and that this Easement qualify as an enforceable action under the provisions of California Revenue and Taxation Code Section 402.1.

13. Hold Harmless. Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantee Indemnified Party" and collectively, "Grantee Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Easement Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantee or any of it's employees; (ii) the obligations specified in Sections 6, 10 and 10(a); and (iii) the existence or administration of this Easement. If any action or proceeding is brought against any of the Grantee Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Grantee Indemnified Party.

Grantee shall hold harmless, protect and indemnify Grantor and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each a "Grantor Indemnified Party" and collectively, "Grantor Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (i) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Easement Property, regardless of cause, except that this indemnification shall be inapplicable to any Claim due solely to the negligence of Grantor or any of it's employees; and (ii) the obligations specified in Section 10 as to obtaining any applicable governmental permits and approvals required for any activity or use requested by Grantee and permitted by this Easement. If any action or proceeding is brought against any of the Grantor Indemnified Parties by reason of any such Claim, Grantee shall, at the election of and upon written notice from Grantor, defend such action or proceeding by counsel reasonably acceptable to the Grantor Indemnified Party.

14. Grantor's Environmental Warranty. This Easement is not intended to create environmental liability in the Grantee. The Grantor represents and warrants that it has no actual knowledge of a release or threatened release of hazardous substances or wastes on the Easement Property and hereby promises to defend and indemnify the Grantee Indemnified Parties from and against all litigation, claims, demands, penalties and damages, including reasonable attorneys' fees, arising from or connected with any release of hazardous waste or violation of federal, state or local environmental laws and not the result of Grantee's activities on the Easement Property.

Notwithstanding any other provision herein to the contrary, the parties do not intend this Easement be construed such that it imposes on, creates in or gives the Grantee:

a. the obligations or liability of an "owner" or "operator" as those words are defined and used in environmental laws, as defined below, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 USC section 9601 et seq., and hereinafter "CERCLA");
b. the obligations or liability of a person described in 42 USC section 9607 (a)(3) or (4);
c. the obligations of a responsible person under any applicable Environmental Laws, as defined below;
d. the right to investigate and remediate any Hazardous Materials, as defined below, associated with the Easement Property; or
e. any control over Grantor's ability to investigate, remove, remediate, or otherwise clean up any Hazardous Materials associated with the Easement Property.
f. The term "Hazardous Materials" includes, without limitation, (i) material that is flammable, explosive, or radioactive; (ii) petroleum products; and (iii) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Hazardous Materials Transportation Act (49 USC section 5101, et seq.), the Hazardous Waste Control Law (California Health and Safety Code section 25100 et seq.), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable federal, state, or local laws, ordinances, rules, or regulations now in effect or enacted after this date.

g. The term "Environmental Laws" includes, without limitation, any federal, state or local or administrative agency statute, regulation, rule, ordinance, order or requirement relating to pollution, protection of human health, the environment, or Hazardous Materials.

15. Access. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Protected Values of the Easement Property. If Grantor undertakes all reasonable actions consistent with the uses of the Easement Property permitted by this Agreement to prevent the unlawful entry and trespass by persons, Grantee will not hold Grantor or its successors in interest liable for degradation or harm to the Protected Values of the Easement Property stemming from trespass behavior.

16. Amendment. This Easement may be amended by Grantor and Grantee by mutual written agreement. However, any amendment shall be consistent with the Purposes of this Easement, shall not authorize additional dwelling units and shall not affect its perpetual duration. Any amendment shall be recorded in the official records of the County of Placer, State of California.

17. Assignment or Transfer of Easement. This Easement may be assigned or transferred by Grantee to an entity or organization authorized to acquire and hold conservation easements pursuant to California Civil Code Section 815.3 and Government Code Section 65965 (and any successor or other provision(s) then applicable), or the laws of the United States, upon obtaining the prior written consent of Grantor. Such consent shall not be unreasonably withheld by Grantor. If Grantee assigns its interest in this Easement, Grantee shall require the assignee to protect the Protected Values as defined in this Easement. Any assignment without such consent shall be void and of no effect.

18. Placer County Conservation Plan--Amendment and/or Conversion of Conservation Easement. Grantor acknowledges that Grantee is in the process of preparing the PCCP. The PCCP will establish a regional conservation program, including specific biological resources goals and objectives, and a detailed conservation strategy, including specific land management requirements, among other terms and conditions, which will fulfill requirements for permits authorizing the incidental take of certain covered species and natural communities. The terms and conditions of the PCCP must be approved by United States Fish and Wildlife Service under Section 10 of the Federal Endangered Species Act of 1973, as amended (16 U.S.C. Section 1531 *et seq.*) and by California Department of Fish and Game under California Fish and Game Code Section 2820 and set forth in the PCCP Implementing Agreement(s) (collectively, the "Agency PCCP Approvals"). Because the PCCP has not yet been finalized, and the Agency Approvals have not been given, the specific PCCP terms and conditions that may apply to the Easement Property have not been determined. Grantor agrees that, after the Agency PCCP Approvals have been given and consistent with Section 16, above, this Easement may be amended and/or converted and replaced upon written request of Grantee to provide for improved or enhanced protection of the Protected Values on the Easement Property as required by the PCCP, the PCCP Implementing Agreement(s) and the PCCP Reserve Management Plan for the Easement Property in accordance with the PCCP, and agrees to cooperate with Grantee and sign any and all documents necessary to effectuate such amendment and/or conversion. The terms of any such amendment shall be subject to Grantor's

approval, which may not be unreasonably withheld. Any such amendment shall not create an additional financial burden for Grantor, unless Grantor receives adequate financial compensation as determined by Grantor at its sole discretion, from Grantee or at Grantee's direction. Any such amendment shall be consistent with California law governing conservation easements and shall not affect the perpetual duration of this Easement. Any such amendment and/or conversion shall be recorded in the official records of Placer County and Grantee shall promptly provide a conformed copy of the recorded amendment to the Grantor.

19. Transfer of Property. Grantor agrees to incorporate the terms of this Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Remainder Property 1, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee of the intent to transfer any interest at least sixty (60) days prior to the date of such transfer. Grantee shall have the right to prevent any transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Easement (including the exhibits and documents incorporated by reference in it). The failure of Grantor to perform any act provided in this section shall not impair the validity of this Easement or limit its enforceability in any way.

20. Notices.
    a. "Notice" means any notice, demand, request or other communication or document to be provided under this Easement to a Party to this Easement
    b. The Notice shall be in writing and shall be given to the Party at its address or facsimile number set forth below, or such other address or facsimile number as the Party may later specify for that purpose by Notice to the other Party. Each Notice shall, for all purposes, be deemed given and received:

        (1) If given by facsimile, when the facsimile is transmitted to the Party's facsimile number specified below and confirmation of complete receipt is received by the transmitting Party during normal business hours or on the next business day if not confirmed during normal business hours;

        (2) If hand-delivered to a Party against receipted copy, when the copy of Notice is receipted;

        (3) If given by a nationally-recognized and reputable overnight delivery service, the day on which the Notice is actually received by the Party; or

        (4) If given by any other means, or if given by certified mail, return receipt requested, postage prepaid, two business days after it is posted with the United States Postal Service, at the address of the Party specified below:

        If to Grantor: Donald and Valerie Campbell
        8225 Hubbard Road
        Auburn, CA 95602
        Facsimile No. (530) 823-8976

        If to the Grantee: County of Placer

Department of Facility Services
11476 C Avenue
Auburn, CA 95603
Attn: Property Manager
Telephone No. (530) 886-4900
Facsimile No. (530) 889-6857

Copies on any Notice to Grantee shall also be sent to:
County of Placer
Office of County Counsel
175 Fulweiler Avenue
Auburn, CA 95603
Facsimile No. (530) 889-4069

c. If any Notice is sent by facsimile, the transmitting Party shall send a duplicate copy of the Notice to the other Party by regular mail. In all events, however, any Notice sent by facsimile transmission shall govern all matters dealing with delivery of the Notice, including the date on which the Notice is deemed to have been received by the other Party.
d. The provisions above governing the date on which a Notice is deemed to have been received by a Party to this Easement shall mean and refer to the date on which a Party to this Easement, and not its counsel or other recipient, to which a copy of the Notice may be sent, is deemed to have received the Notice.
e. If Notice is tendered under the provisions of this Easement and is refused by the intended recipient of the Notice, the Notice shall nonetheless be considered to have been given and shall be effective as of the date provided in this Easement. The contrary notwithstanding, any Notice given to either Party in a manner other than that provided in this Easement that is actually received by the noticed Party, shall be effective with respect to such Party on receipt of the Notice.
f. Provided that in the event Grantee assigns or transfers its rights under this Easement, copies of all notices to Grantee shall still be given to the County of Placer, Department of Facility Services. Furthermore, Grantor, and Grantor's successors and/or assigns, shall notify Grantee within ten (10) days of the change in ownership of the Remainder Property 1 or a portion thereof.
g. Each Party shall make an ordinary, good faith effort to ensure that it will accept or receive Notices that are given in accordance with this paragraph, and that any person to be given Notice actually receives such notice. A Party may change or supplement the addresses given above, or designate additional addresses, for purposes of this Section by giving the other Party written Notice of the new address in the manner set forth above.

21. General Provisions
a. California Law. The Parties hereto acknowledge that this Easement has been negotiated and entered into in the State of California. The Parties hereto expressly agree that this Easement shall be governed by, interpreted under and construed and enforced in accordance with laws of the State of California. Venue for any disputes shall be the Superior Court for the State of California, Placer County. The Parties hereby waive any federal court removal rights and/or rights based on original jurisdiction that they may have.

b. Liberal Construction. Any general rule of construction to be contrary not withstanding, this Easement shall be liberally construed in favor of the grant to effect the Purposes of this Easement and the policy and purpose of the California Conservation Easement Act of 1979, as amended. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the Purposes of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

c. Severability. If any provision of this Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

d. Entire Agreement. This instrument sets forth the entire agreement of the Parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

e. No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

f. Joint Obligation. The obligations imposed by this Easement upon Grantors shall be joint and several.

g. Successors; Recordation; Future Cooperation. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of the Parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Remainder Property 1. Notwithstanding any provision of this Easement to the contrary, upon transfer of its fee interest in the Remainder Property 1, Grantor shall have no further obligations under this Easement, and Grantee shall thereafter look only to Grantor's successors-in-interests for fulfillment of any of Grantor's obligations or covenants under this Easement. Grantor consents to the recordation of this Agreement in the Official Records of Placer County. The Parties further agree and acknowledge that their respective obligations and the mutual goals of the Parties hereunder are dependent on the mutual cooperation and good faith efforts of the Parties. The Parties therefore agree to execute such additional documents and take such other actions as may be reasonable and necessary to carry out the Purposes of this Agreement.

h. Termination of Rights and Obligations. A Party's rights and obligations under this Easement terminate upon transfer of the Party's interest in the Easement or Remainder Property 1, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

i. No Governmental Approval. The grant of this Easement shall not grant or convey any discretionary land use approvals; nor shall it constitute a governmental approval of any improvements, construction or other activities which may be permitted under this Easement.

j. Counterparts. This Agreement may be executed in counterparts.

k. Legal and Financial Review. Each party represents and warrants that it has had the opportunity to review this Easement with the legal and/or financial adviser(s) of its own choosing, or has knowingly declined the opportunity to do so. Grantor agrees and acknowledges that the Grantee makes no representations or statements of any kind regarding the tax consequences of this Easement.

l. Authority of Agreement. The person(s) signing this Agreement on behalf of the Grantor each warrants and represents that he or she has the authority to execute this

Agreement on behalf of Grantor and to bind the legal owner of the Easement Property to the terms and conditions stated herein.

m. No Waiver. Grantee's failure to enforce any right or provision of the terms and conditions of this Easement shall not constitute a waiver of such right or provision unless expressly acknowledged by Grantee in writing.

22. Unrecorded Baseline Information. The Parties agree and acknowledge that the Baseline Document Report attached as Exhibit D hereto is premised upon certain site maps, aerial photos, and ground level photography which is not suitable for recording at the Office of the County Recorder (hereinafter, the "Unrecorded Baseline Information.") County agrees to retain the Unrecorded Baseline Information at the Clerk of the Board of Supervisors, and at the Department of Facility Services, or other County office as the County may designate upon notice to Grantor, for at least ten (10) years from the date this Easement is recorded.

**THE REMAINDER OF THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK**

IN WITNESS WHEREOF, Grantor has executed this Deed of Conservation Easement this 17 day of December, 2013.

**GRANTOR:** Donald and Valerie Campbell, Husband and Wife as Joint Tenants

By: Donald Campbell
Donald Campbell

Date: 12/17/13

By: Valerie Campbell
Valerie Campbell

Date: 12-17-13

[Notarization of Grantor's signatures]

AGREED AND ACCEPTED:

COUNTY OF PLACER

By: _____

Date: _____

[Notarization of Grantee's signatures]

Exhibit A-1: Easement Property Legal Description
Exhibit A-2: Easement Property Map
Exhibit B: Permitted Uses and Practices
Exhibit C: Prohibited Uses and Practices
Exhibit D: Baseline Documentation Report

IN WITNESS WHEREOF, Grantor has executed this Deed of Conservation Easement this _____ day of _____, 201_.

**GRANTOR:** Donald and Valerie Campbell, Husband and Wife as Joint Tenants

By: _____ Date: _____
Donald Campbell

By: _____ Date: _____
Valerie Campbell

[Notarization of Grantor's signatures]

AGREED AND ACCEPTED:

COUNTY OF PLACER

By: Mary Dietrich Date: 12/18/13

[Notarization of Grantee's signatures]

Exhibit A-1: Easement Property Legal Description
Exhibit A-2: Easement Property Map
Exhibit B: Permitted Uses and Practices
Exhibit C: Prohibited Uses and Practices
Exhibit D: Baseline Documentation Report

STATE OF CALIFORNIA
COUNTY OF Placer

On 12-17-13 before me, Deborah Yue, Notary Public,

personally appeared Donald Campbell and Valerie Campbell

,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: _____

Commission Expiration Date: _____

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

## ACKNOWLEDGMENT

State of California
County of Placer )

On December 18, 2013 before me, Shawna Lee Howard, Notary Public
(insert name and title of the officer)

personally appeared Mary Dietrich _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Shawna Howard (Seal)

SHAWNA LEE HOWARD
COMM. #1884867
Notary Public · California
Placer County
My Comm. Expires Apr. 2, 2014
NRO1

**EXHIBIT A-1**

# EASEMENT PROPERTY LEGAL DESCRIPTION

All that portion of Parcels A and B, of that Parcel Map filed in Book 11 of Parcel Maps, at Page 100, Official Records of Placer County, situated in the Northeast Quarter of Section 23, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California described as follows:

A three hundred foot (300.00') wide strip of land adjoining and lying southerly and easterly of the center of Coon Creek.

EXCEPTING THEREFROM, All that portion of said three hundred foot wide strip, lying within the northerly 170 feet of said Parcels A and B; the southerly line of said northerly 170 feet being parallel to the northerly line of said Parcels A and B.

The southerly and easterly sidelines of said 300 foot wide strip are to be prolonged or shortened to terminate westerly on the westerly boundary of said Parcel A, and to terminate northerly on the southerly line of the above described northerly 170 feet of said Parcels A and B; the southerly line of said northerly 170 feet being parallel to the northerly line of said Parcels A and B.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

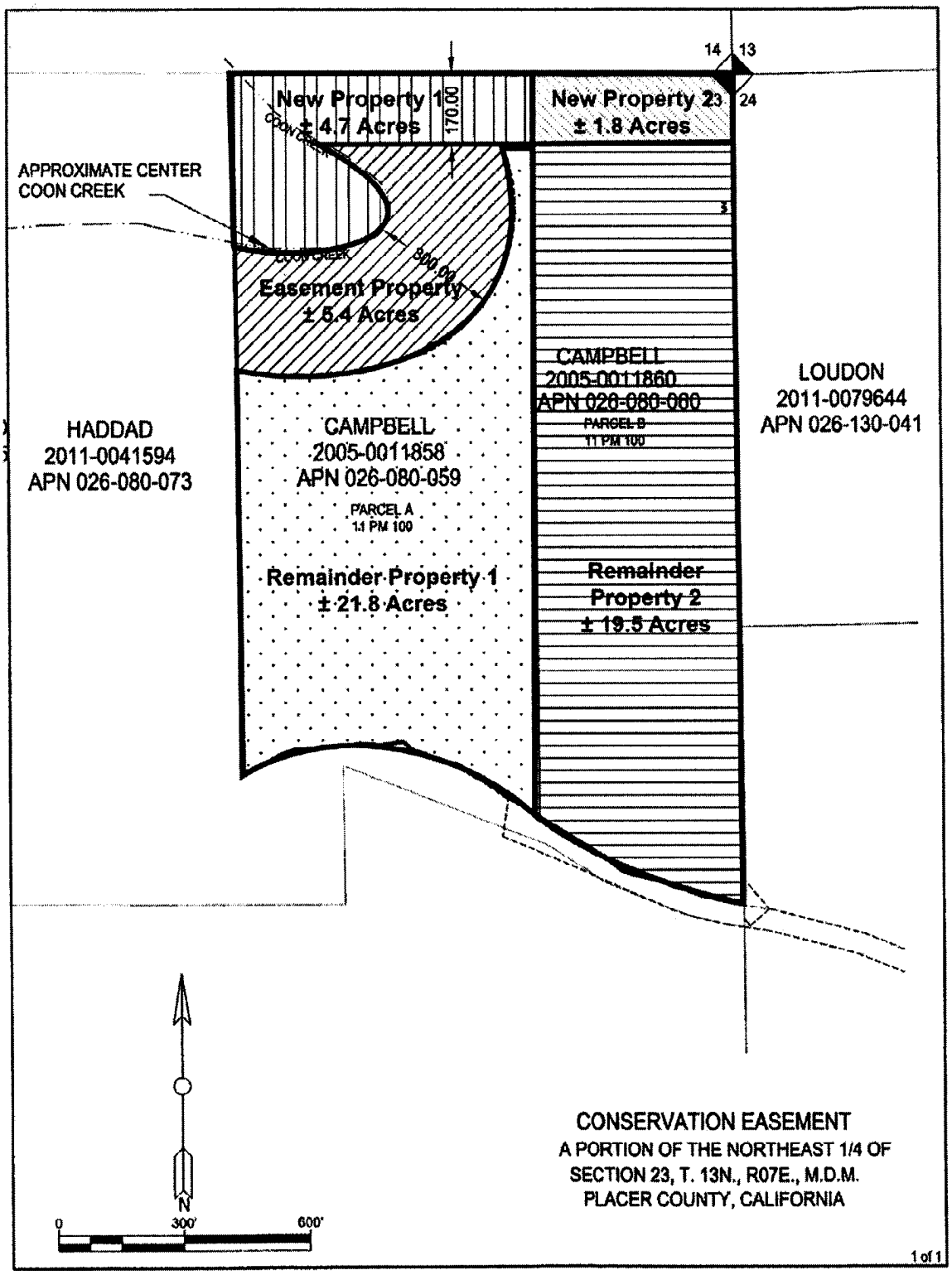
LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-13
STATE OF CALIFORNIA

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: MAY 8- 2013

*T:\ENG\lamsberry\county assistance\DFS\Hidden Falls 2013 Aquisitions\Trail Connectivity\Campbell\Campbell A Esmt Exhibit A.docx*

**EXHIBIT A-2**

# EASEMENT PROPERTY MAP

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## PERMITTED USES AND PRACTICES

The following uses and practices, though not necessarily an exhaustive recital of consistent uses and practices, are expressly permitted under this Easement at Grantor's sole discretion, and they are not to be precluded, prevented, or limited except as otherwise provided by this Easement.

1. Reserved Rights: To implement, use and reserve all of Grantor's reserved rights as allowed in Section 7, herein.
2. Agriculture:
   a. Grazing: To conduct grazing as a tool for habitat management, for fuel load management that reduces fire threat, for economic gain and for related purposes to the extent consistent with the Purposes of the Easement and compatible with protecting the Protected Values. Grantor or Grantor's designee(s) may graze any species of animal that does not cause significant damage to oak trees and/or cause significant soil erosion. Grantor may overseed with advance written permission of Grantee.
   b. Animals: To keep any animal or insect, consistent with the Purposes of the Easement and compatible with protecting the Protected Values, which does not significantly damage the woodland, wildlife habitat, rangeland, soil, or water quality.
3. Fencing: To place, construct, and maintain fencing deemed by Grantor to be reasonably necessary and that are not detrimental to the Protected Values of the Easement.
4. Improvements and Facilities:
   a. Construction and Maintenance: To maintain and repair existing structures, fences, roads, ditches, and other improvements on the Remainder Property 1.
      i. Construction of Buildings: To construct non-residential buildings and related structures that are accessory to property and habitat management or permitted agricultural uses on the Remainder Property 1, subject to obtaining the express written approval of Grantee as provided by this Easement. Grantee retains the right to deny requests for construction, if in Grantee's sole determination the location of construction would be detrimental to the Protected Values of the Easement. Upon completion of construction, Grantor shall update the Baseline Documentation Report to describe and depict the location of such improvements.

b. Replacement: To replace destroyed, deteriorated, or obsolete improvements, structures, fences, corrals, roads or ditches, whether existing at the date hereof or constructed subsequently pursuant to the provisions of this Easement, Grantor may replace the same with improvements or structures of similar size, function, capacity and location.

5. Conservation Uses: To pursue those activities employed in the preservation, enhancement, restoration, and/or creation of Protected Values and to engage in any and all conservation uses of the Easement Property in accordance with sound, generally accepted conservation practices.
   a. Habitat. To restore, create, plant, propagate, improve, enhance, and maintain habitat in accordance with local, state and federal standards and regulations unless such rights are amended and/or converted through the recordation of an amended easement as provided by Section 18 of this Easement.
   b. Sustainable Forestry: To engage in understory clearing, tree thinning, tree cutting, and clearing of dead or down wood for fuel load reduction and/or forest and woodland health ("Sustainable Forestry") or for carbon project activities as described in Section 7(i) of this Easement. To remove from the Easement Property any vegetative and woody debris from Sustainable Forestry activities for any purpose (including but not limited to sale or use as biomass) in accordance with any plan that may be developed prior to registration of a forest carbon sequestration project, with Grantor's approval, or to utilize vegetative and woody debris for habitat enhancement on the Easement Property. Nothing permitted by this section shall allow any practice that is inconsistent with the Purposes of this Easement, damages, decreases, or fragments woodland areas or adversely impacts the Protected Values

c. Tree Removal: To cut and remove trees only as necessary to: pursue Conservation Uses; construct or repair buildings, fences, and other permitted improvements; cut or collect firewood for the heating of permitted residences; prevent property damage; prevent personal injury or for general public safety; control insects or disease; or as otherwise permitted by this Easement. General tree clearing for rangeland enhancement, animal husbandry or other agricultural activities is prohibited.

d. .

6. Vehicle Usage. To operate motorized vehicles anywhere on the Easement Property by Grantor or Grantor's designee(s) for property and habitat management, Sustainable Forestry and permitted agricultural activities, provided that such motorized vehicle use does not significantly impair the Protected Values, provided, that operation of motorized vehicles off of identified roads shall be minimized. To operate motorized vehicles by Grantor, Grantor's designee(s), Grantee or Grantee's designee(s) on any baseline-identified roads and the Trail System.
7. Recreational Uses. To utilize the Easement Property for recreational or educational purposes including but not limited to hiking, bicycling, horseback riding, hunting, and fishing. To provide educational opportunities.
8. Signage. To post signage for trespass. Grantor or Grantee, with advance written notice to the other Party, may also place and maintain signage on the Easement Property that describes the involvement of Grantor and Grantee and any funding partners that contribute to the purchase of the Easement Property, or that furthers the Purposes of the Easement and is associated with the uses permitted hereunder.
9. Carbon Projects: Grantor shall be permitted to pursue carbon sequestration, carbon credit sales, and related carbon projects as described in Section 7(i) herein.

**THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK**

## PROHIBITED USES AND PRACTICES

The following uses and practices, though not necessarily an exhaustive recital of inconsistent uses and practices, are inconsistent with the Purposes of this Easement and are expressly prohibited upon or within the Easement Property:

1. Impairment of Protected Values. The impairment of the Protected Values, except as otherwise expressly permitted herein. Conduct of those activities that are inconsistent with the Protected Values, and the Purposes of this Easement.
2. Commercial or Industrial Use. The establishment and conduct of commercial or industrial uses, the conduct of commercial timber or fuel wood harvesting unless associated with Sustainable Forestry as permitted in Exhibit B, or the construction, placing, or erection of billboards or any signs, except as permitted in Exhibit B.
3. Construction. The construction, reconstruction, or replacement of structures, housing, roads, trails, and other improvements and facilities, except as otherwise may be allowed by this Easement.
4. Subdivision. The gift deeding, subdivision (parcel map or final map for sale, lease or financing), or de facto subdivision of the Easement Property. Note however, that the lease of all or a portion of the Easement Property for permitted uses (such as productive agricultural use), which is otherwise consistent with terms of this Easement, shall not be prohibited by this Section.
5. Motorized Vehicles. The use of motorized vehicles, except as permitted in Exhibit B or for emergencies.
6. Tree Cutting. The harvesting or removal of trees, except as permitted in Exhibit B.

**EXHIBIT C**
**PROHIBITED USES AND PRACTICES**
**PAGE 2 OF 2**

7. Dumping. The dumping or other disposal of wastes, refuse or debris on the Easement Property, except for organic material generated by permitted Conservation Uses on the Easement Property; provided that any such dumping or disposal of organic material shall be in accordance with applicable law and generally accepted conservation management practices, and that no runoff from organic material shall adversely affect water quality. No trash, refuse, vehicle bodies or parts, rubbish, debris, junk, waste, or hazardous waste shall be placed, stored, dumped, buried, or permitted to remain on the property except as reasonably required for the use of the Easement Property for management purposes, and in accordance with applicable law.
8. Soil Degradation. Ranching (e.g., overgrazing), agricultural, or other uses otherwise permitted under this Easement, which result in significant degradation of soil quality, sedimentation of adjoining waterways, or excessive erosion. Intermittent and short-term instances of erosion that occur in limited areas as a result of Trail System or road construction/utilization/maintenance, which are subsequently repaired shall be permitted by this Easement.
9. Water Quality Degradation. Ranching, agricultural, Conservation, or other uses otherwise permitted under this Easement, which result in significant degradation of water quality. Stockpiling animal wastes, compost, or loose soil in a manner whereby runoff adversely affects water quality.
10. Surface Alteration or Excavation. Any alteration of the topography and natural drainage of the Easement Property including, without limitation, the removal of soil or the extraction of minerals by any surface mining method, except as may be required for uses on the Easement Property incidental to the agricultural uses permitted herein, and provided that such removal or extraction is limited and localized, is not irremediably destructive of significant conservation interests, does not damage, impair or endanger the Protected Values of the Easement Property, is in accordance with applicable law, and is approved, as to location and amount of materials and any necessary or appropriate remediation, in writing by Grantee. Grading activities are to be limited to: the maintenance of baseline roads; grading for, to, and within the Trail System and any permitted building activities; and grading for new roads that replace decommissioned roads resulting in enhancement of the Protected Values subject to Grantee approval.
11. Water Rights. Grantor shall not transfer or otherwise convey water rights that may otherwise be needed to further Purposes.
12. Crops. Cultivation and planting of both permanent and non-permanent crops.

**THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK**

# Before the Board of Supervisors
# County of Placer, State of California

**IN THE MATTER OF: A RESOLUTION AUTHORIZING THE DIRECTOR OF FACILITY SERVICES, OR HIS DESIGNEE, TO EXECUTE TWO AGREEMENTS OF PURCHASE AND SALE BETWEEN THE COUNTY OF PLACER AND 1) DONALD AND VALERIE CAMPBELL AND 2) RAJA AND PAMELA HADDAD, AND TO ACQUIRE A TRAIL EASEMENT FROM LOIS M. LOUDON, AND EXECUTE ALL OTHER DOCUMENTATION, AND, TO TAKE ALL OTHER ACTIONS NECESSARY TO THESE PROPERTY TRANSACTIONS.**

**Resol. No:** 2013-074

The following **RESOLUTION** was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held April 23, 2013 by the following vote on roll call:

Ayes: DURAN, WEYGANDT, UHLER, MONTGOMERY, HOLMES

Noes: NONE

Absent: NONE

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST

ANN HOLMAN
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

Signed and approved by me after its passage.

Chair, Board of Supervisors

Attest:

Clerk of said Board

---

**WHEREAS**, Donald and Valerie Campbell are the fee-title owners APNs 026-080-059, 026-080-060 (Campbell); and,

**WHEREAS,** Raja and Pamela Haddad, trustees of the Raja and Pamela Revocable Trust dated July 14, 2010 are the fee-title owners of APN 026-080-073 (Haddad); and,

**WHEREAS,** Lois M. Loudon, Trustee of the Lois M. Loudon Revocable Trust executed April 20, 2004, is the fee-title owner of APN 026-130-041 (Loudon); and,

**WHEREAS,** the Campbell, Haddad, and Loudon properties are located in the Garden Bar/Big Hill area of Placer County and possess significant conservation, habitat, and public recreation values; and,

**WHEREAS,** for future public trail access, the County desires to acquire: 11.04 acres and 6.5 acres in fee, together with rights for future construction access, from Haddad and Campbell respectively; a 5.4 acre Conservation Easement from Campbell; and a 0.18 acre trail easement from Loudon.

**NOW, THEREFORE, BE IT RESOLVED,** the County Board of Supervisors does hereby authorize the Director of Facility Services, or his designee, on its behalf, to execute two Agreements of

Purchase and Sale one with Haddad and the other with Campbell to transfer the aforementioned property interests; to execute an Open Space Conservation Easement from Campbell; to accept and record a trail easement from Loudon; to execute all other documentation and take all other actions necessary to complete these transactions; and does hereby consent to the acceptance, granting, and recordation of the deeds and easements, subject to approval by County Counsel and Risk Management.

25

RECORDING REQUESTED BY

Placer Title Company

Escrow Number: 102-38652-DY

**AND WHEN RECORDED MAIL TO**

COUNTY OF PLACER
DEPT OF FACILITY SERVICES
11476 C AVENUE
AUBURN, CA 95603

PLACER, County Recorder
JIM MCCAULEY
DOC- 2013-0116645-00
PLACER TITLE - RECORDING
MONDAY, DEC 23, 2013 14:36:14
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02328521
CLKCNMLFJ1/JC/1-8

A.P.N.: PORTION OF 026-080-059 AND 060

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is $0.00 City Transfer Tax: $0.00
(X) computed on full value of property conveyed, or
() computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

**DONALD CAMPBELL AND VALERIE CAMPBELL,**
**HUSBAND AND WIFE**

Hereby GRANT(S) to

**COUNTY OF PLACER**
**A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**SEE EXHIBITS "B-1", "B-2", "B-3" AND "B-4"**
**ATTACHED HERETO AND MADE A PART HEREOF**

Dated: December 08, 2013

By: Donald Campbell
DONALD CAMPBELL

By: Valerie Campbell
VALERIE CAMPBELL

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

Name Street Address City & State



slrpkg.doc

STATE OF CALIFORNIA
COUNTY OF Placer

On 12-17-13 before me, Deborah Yue, Notary Public,

personally appeared Donald Campbell and Valerie Campbell

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: _____

Commission Expiration Date: _____

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

Name | Street Address | City & State

**EXHIBIT B-1**

# PURCHASE PROPERTY LEGAL DESCRIPTION
## New Property 1

All that portion of the property described in the Deed to Campbell recorded as Document 2005-0011858, Official Records of Placer County, being a portion of Parcel A, of that Parcel Map filed in Book 11 of Parcel Maps, at Page 100, Official Records of Placer County, situated in the Northeast Quarter of Section 23, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California described as follows:

All that portion of said Parcel A lying westerly of the center of Coon Creek.

TOGETHER WITH all that portion of the northerly 170 feet of said Parcel A lying easterly of the center of Coon Creek; the southerly line of which is parallel to the northerly line of said Parcel A.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

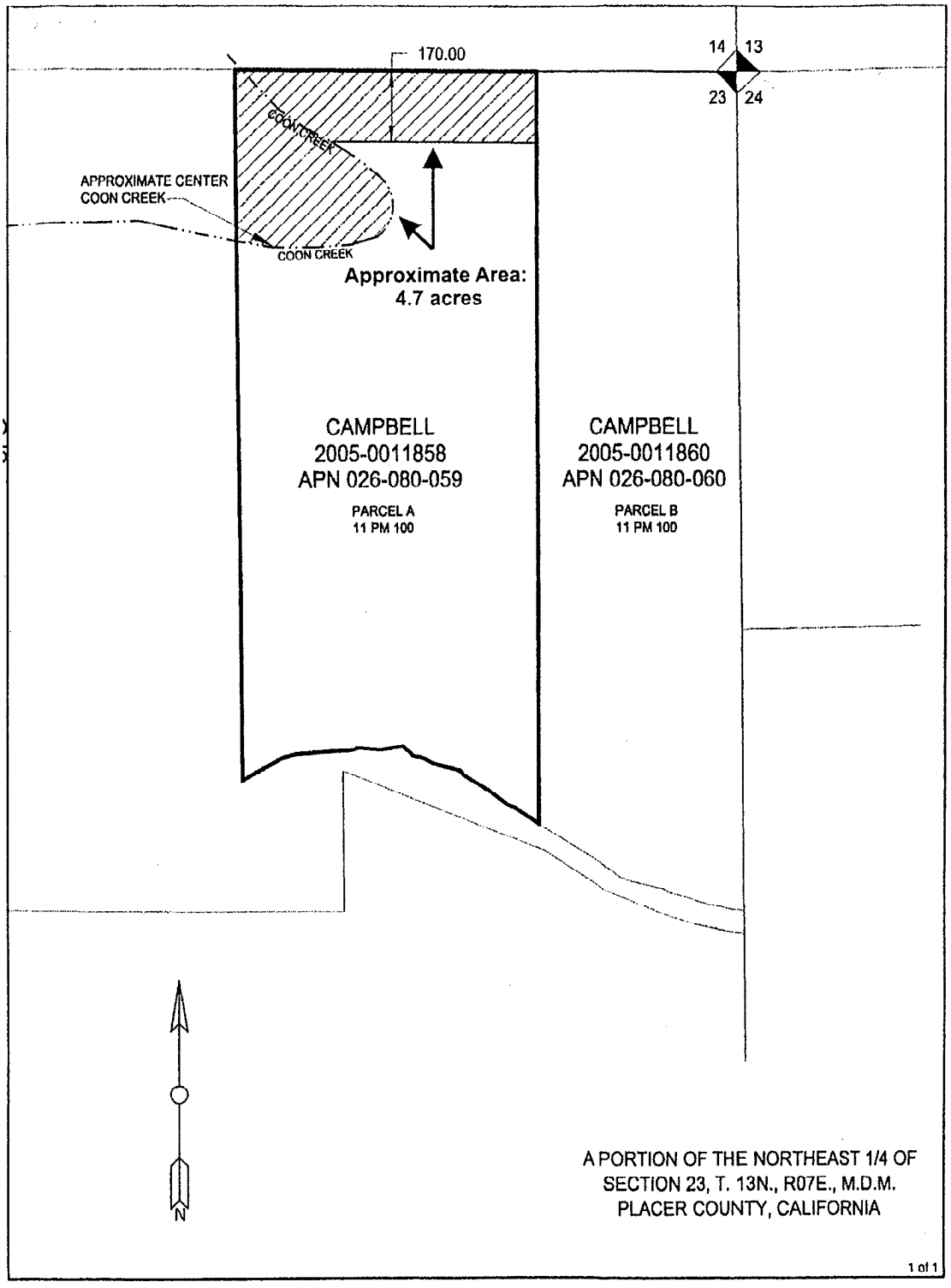
Leslie Amsberry

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 4-23-2013

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-2013
STATE OF CALIFORNIA

**EXHIBIT B-2**

# PURCHASE PROPERTY MAP
## New Property 1




DL
UC

**EXHIBIT B-3**

# PURCHASE PROPERTY LEGAL DESCRIPTION
## New Property 2

All that portion of the property described in the Deed to Campbell recorded as Document 2005-0011860, Official Records of Placer County, being a portion of Parcel B, of that Parcel Map filed in Book 11 of Parcel Maps, at Page 100, Official Records of Placer County, situated in the Northeast Quarter of Section 23, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California described as follows:

The northerly 170 feet of said Parcel B; the southerly line of which is parallel to the northerly line of said Parcel B.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

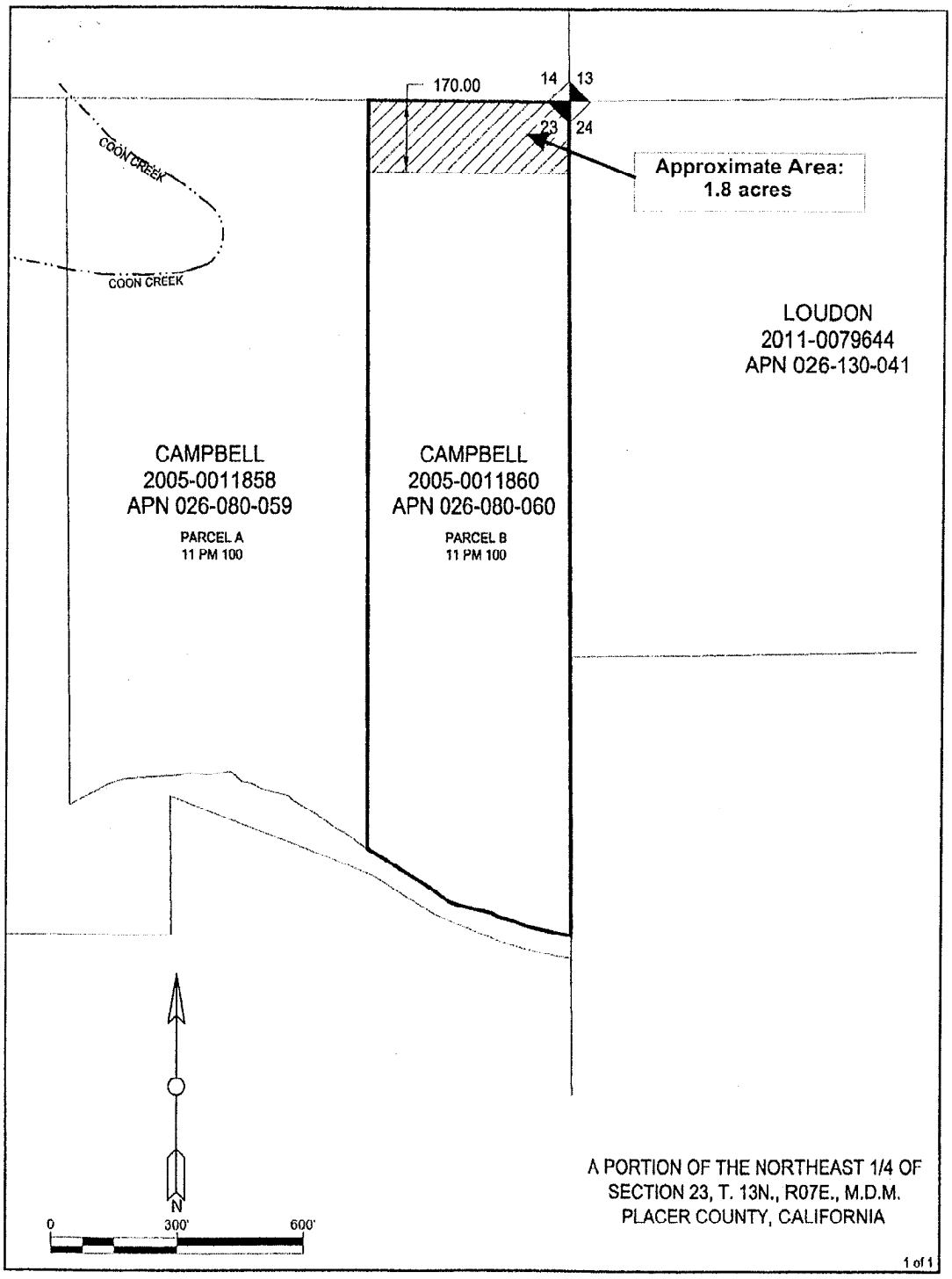
Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 4-23-2013

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-2013
STATE OF CALIFORNIA

*4/10/2013*
*T:\ENG\lamsberry\county assistance\DFS\Hidden Falls 2013 Aquisitions\Trail Connectivity\Campbell\Campbell A Fee Exhibit A.docx*

**EXHIBIT B-4**

# PURCHASE PROPERTY MAP
## New Property 2




DC
JC

# Before the Board of Supervisors
# County of Placer, State of California

**IN THE MATTER OF: A RESOLUTION AUTHORIZING THE DIRECTOR OF FACILITY SERVICES, OR HIS DESIGNEE, TO EXECUTE TWO AGREEMENTS OF PURCHASE AND SALE BETWEEN THE COUNTY OF PLACER AND 1) DONALD AND VALERIE CAMPBELL AND 2) RAJA AND PAMELA HADDAD, AND TO ACQUIRE A TRAIL EASEMENT FROM LOIS M. LOUDON, AND EXECUTE ALL OTHER DOCUMENTATION, AND, TO TAKE ALL OTHER ACTIONS NECESSARY TO THESE PROPERTY TRANSACTIONS.**

**Resol. No:** 2013-074

The following **RESOLUTION** was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held April 23, 2013 by the following vote on roll call:

Ayes: DURAN, WEYGANDT, UHLER, MONTGOMERY, HOLMES

Noes: NONE

Absent: NONE

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST

ANN HOLMAN
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

Signed and approved by me after its passage.

Chair, Board of Supervisors

Attest:

Clerk of said Board

---

**WHEREAS**, Donald and Valerie Campbell are the fee-title owners APNs 026-080-059, 026-080-060 (Campbell); and,

**WHEREAS,** Raja and Pamela Haddad, trustees of the Raja and Pamela Revocable Trust dated July 14, 2010 are the fee-title owners of APN 026-080-073 (Haddad); and,

**WHEREAS,** Lois M. Loudon, Trustee of the Lois M. Loudon Revocable Trust executed April 20, 2004, is the fee-title owner of APN 026-130-041 (Loudon); and,

**WHEREAS,** the Campbell, Haddad, and Loudon properties are located in the Garden Bar/Big Hill area of Placer County and possess significant conservation, habitat, and public recreation values; and,

**WHEREAS,** for future public trail access, the County desires to acquire: 11.04 acres and 6.5 acres in fee, together with rights for future construction access, from Haddad and Campbell respectively; a 5.4 acre Conservation Easement from Campbell; and a 0.18 acre trail easement from Loudon.

**NOW, THEREFORE, BE IT RESOLVED,** the County Board of Supervisors does hereby authorize the Director of Facility Services, or his designee, on its behalf, to execute two Agreements of

Purchase and Sale one with Haddad and the other with Campbell to transfer the aforementioned property interests; to execute an Open Space Conservation Easement from Campbell; to accept and record a trail easement from Loudon; to execute all other documentation and take all other actions necessary to complete these transactions; and does hereby consent to the acceptance, granting, and recordation of the deeds and easements, subject to approval by County Counsel and Risk Management.

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

**RECORDING REQUESTED AND WHEN RECORDED PLEASE RETURN TO:**

**County of Placer**
**Department of Facility Services**
**ATTN: Property Manager**
**11476 C Avenue**
**Auburn, CA. 95603**

PLACER, County Recorder
JIM MCCAULEY
DOC- 2013-0116647-00
PLACER TITLE - RECORDING
MONDAY, DEC 23, 2013 14:36:16
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02328521
CLKCNMLFJ1/JC/1-6

# COUNTY OF PLACER

# CONSTRUCTION ACCESS EASEMENT AGREEMENT

| County | Project | Name | AP Number |
|---|---|---|---|
| Placer | Hidden Falls Regional Park Connectivity | Campbell | 026-080-060 |

**DONALD AND VALERIE CAMPBELL,** husband and wife, hereinafter referred to as "GRANTOR" hereby grants to the **COUNTY OF PLACER,** a political subdivision of the State of California hereinafter referred to as "COUNTY", a Construction Access Easement, hereinafter the "EASEMENT," for the purpose of COUNTY's access over and across, that certain real property in the County of Placer, State of California as described on Exhibits A1 and A2, hereinafter the "Access Easement."

WHEREAS, GRANTOR and COUNTY have entered into an Agreement for Purchase and Sale wherein the COUNTY will acquire approximately 4.7 acres of GRANTOR's property at the northern portion of Assessor Parcel No. 026-080-059 and approximately 1.8 acres of GRANTOR's property at the northern portion of Assessor Parcel No. 026-080-060, hereinafter the "County's Property." This Agreement for Purchase and Sale also provides for COUNTY acquisition of a conservation easement from GRANTOR.

WHEREAS, pursuant to the terms of that certain Agreement for Purchase and Sale, GRANTOR has agreed that in return for consideration paid by COUNTY for the County's Property, GRANTOR will grant COUNTY rights of access allowing COUNTY, its consultants, contractors, agents, employees, and invitees the right of access over the GRANTOR's Access Easement for the purpose of performing trail and bridge construction activities on County's Property, hereinafter, "the Project."

NOW THEREFORE, in consideration of the conveyance of County's Property, and the other considerations hereinafter set forth, it is mutually agreed as follows:

EFFECTIVE DATE. This EASEMENT will begin upon the date of full execution and recordation of this Access Easement.

TERM. This EASEMENT shall expire upon the date that the Project on County's Property is deemed complete by COUNTY.

USE AND DURATION. COUNTY's use of said Access Easement shall commence four weeks after COUNTY's delivery of a written notice to GRANTOR (hereinafter, the "Construction Commencement Notice"). Said Construction Commencement Notice shall include the commencement date of COUNTYs use of the Access Easement and the estimated duration for the Project. Following the four-week period, COUNTY, its consultants, contractors, agents, employees and invitees shall have the right to travel over the Access Easement for ingress and egress to County's Property for the Project. COUNTY's use shall continue until the completion of the Project or twenty-four (24) months whichever occurs first. In the event that construction is not complete within the twenty-four (24) month duration, COUNTY may request to extend said duration to a date as mutually agreed upon by the parties. GRANTOR shall also allow the COUNTY

the right to enter the Access Easement area to make any repairs or correct defects in the Project work for the 1st year period following the completion of the Project.

GRANTOR also grants to COUNTY rights to enter and travel over the Access Easement for the purpose of performing planning, studies, or investigation of County's Property. Such right to enter shall be following receipt of reasonable advance notice from COUNTY.

Upon termination of the COUNTY's use of the Access Easement and upon request of GRANTOR, COUNTY agrees to quitclaim its rights and interest in said Access Easement back to GRANTOR

ACCESS EASEMENT CONDITION AND RESTORATION AT END OF TERM. Following delivery of the Construction Commencement Notice, COUNTY staff and GRANTOR shall conduct a walkthrough of the Access Easement to document pre-existing conditions with photographs in order to ensure proper restoration of the Access Easement upon Project completion. Said documentation shall serve as the basis for determining if COUNTY's use pursuant to this EASEMENT causes any damage. Upon completion of the Project, COUNTY staff shall arrange a post construction walkthrough with the GRANTOR to review the post-Project condition of the Access Easement. If any damage is determined to be caused by COUNTY's use, COUNTY shall make repairs to bring the Access Easement back to its documented condition.

This EASEMENT, which is valid only when executed by COUNTY, constitutes the complete understanding and agreement of the parties hereto and no oral representation shall in any manner vary the terms hereof, or be binding.

COUNTY or its authorized agents, agree to hold harmless and indemnify OWNER from any liability arising out of the COUNTY'S operations under this EASEMENT. Furthermore, COUNTY agrees to assume responsibility for any damages caused by reason of the COUNTY'S operations under this EASEMENT and will, at COUNTY'S option, either repair or pay for such damage.

IN WITNESS WHEREOF, the parties have executed this EASEMENT the day and year first above written.

Dated this 17th day of Dec, 2013.

**GRANTOR**

Donald Campbell

Donald Campbell

Valerie Campbell

Valerie Campbell

Attachments:

Exhibit A1: Construction Access Easement Legal Description

Exhibit A2: Construction Access Easement Map

STATE OF CALIFORNIA
COUNTY OF Placer

On 12.17.13 before me, Deborah Yue, Notary Public,

personally appeared Donald Campbell and Valerie Campbell

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: D. Yue
Commission Expiration Date:

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

# ACCEPTANCE BY COUNTY

This is to certify that the interest in real property conveyed by the CONSTRUCTION ACCESS EASEMENT AGREEMENT dated Dec 17, 2013, from **DONALD AND VALERIE CAMPBELL**, to the County of Placer, a governmental agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No. 2013-074 and the Grantee consents to the recordation thereof by its duly authorized agent.

Dated: 12-12-13 By: Mary Weitrich

**EXHIBIT A1**

# CONSTRUCTION ACCESS EASEMENT
# LEGAL DESCRIPTION

**Exhibit A1**

PRIVATE ROAD ACCESS

Those certain road and utility easements described as Parcel Two, Parcel Three and Parcel Four in the Deed from Dorothy A. Kalen recorded in Book 1938 at Page 288, Official Records of Placer County, situated in Sections 23 and 24, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California.

Said road and utility easements were previously described as Parcel Two and Parcel Three in the Deeds to Dorothy Kalen recorded in Book 1585 at Page 491, and 1844 at Page 513, and depicted on that Parcel Map filed in Book 11 of Parcel Maps at Page 100, Official Records of Placer County.

TOGETHER WITH

DRIVEWAY ACCESS

The existing (or as they may exist) Gravel Driveway and Dirt Driveway, the general locations of which are depicted on the attached Exhibit A2, over and across Parcel B of that Parcel Map filed in Book 11 of Parcel Maps, at Page 100, Official Records of Placer County.

End of description

Description prepared by:

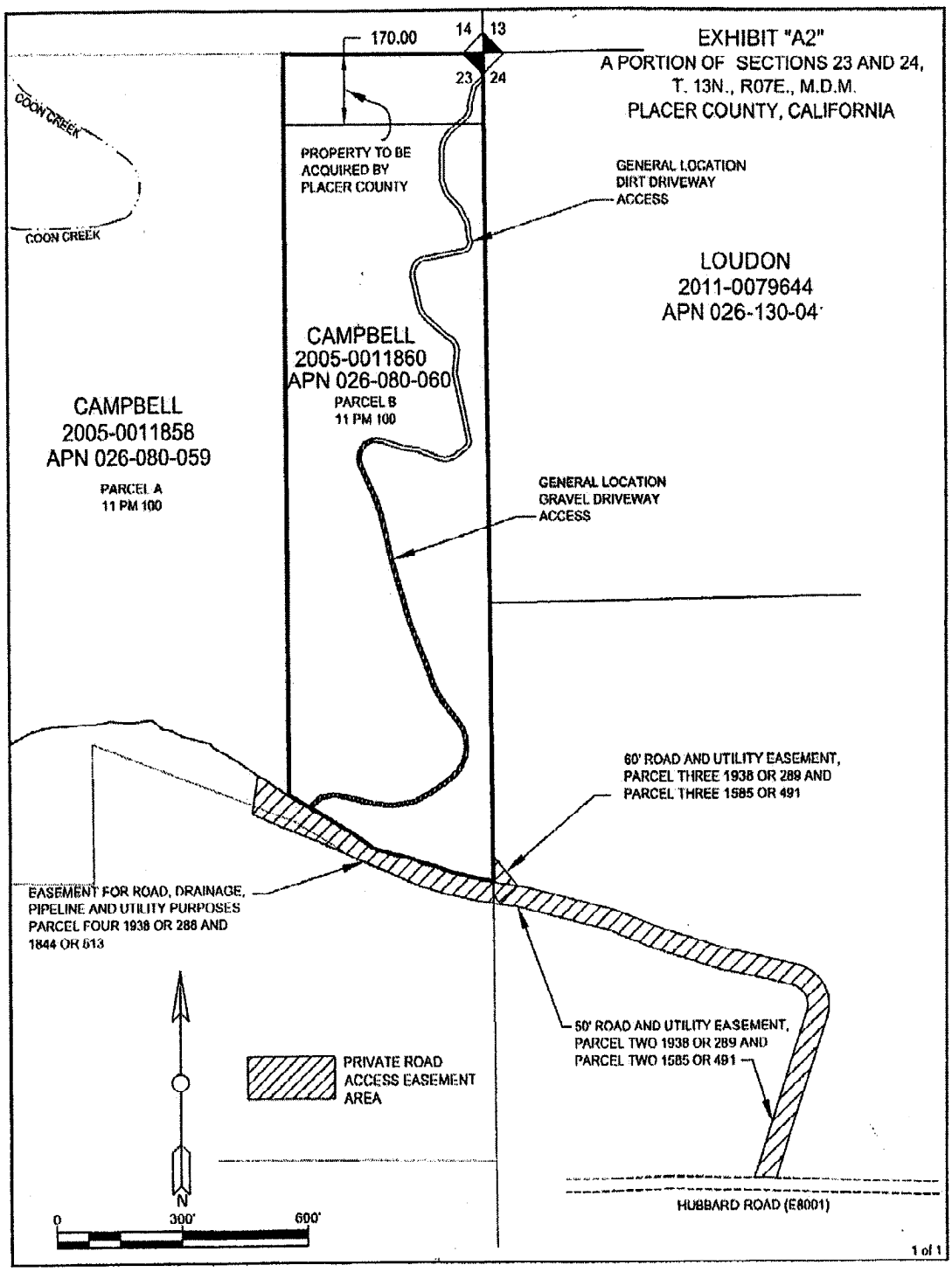
**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 6-13-2013

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-13
STATE OF CALIFORNIA

**EXHIBIT A2**

# CONSTRUCTION ACCESS EASEMENT MAP



RECORDING REQUESTED
BY
PLACER TITLE COMPANY

RECORDING REQUESTED
AND WHEN RECORDED
PLEASE RETURN TO:

County of Placer
Department of Facility Services
ATTN: Property Manager
11476 C Avenue
Auburn, CA. 95603

PLACER, County Recorder
JIM MCCAULEY
DOC- 2013-0116650-00
PLACER TITLE - RECORDING
MONDAY, DEC 23, 2013 14:36:19
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02328521
CLKCNMLFJ1/JC/1-2

Exempt from Recording Fees – Govt Code 27383

# REVOCATION OF ROAD MAINTENANCE AGREEMENT

1. Donald and Valerie Campbell, husband and wife, (the "Campbells") are the owner in fee of that real property situated in the County of Placer, State of California, more particularly described as:

Parcel A and Parcel B as shown and designated on the Parcel Map filed in Book 11 of Parcel Maps, at Page 100, Official Records of Placer County, California.

Hereinafter referred to as the "Property".

3. Dorothy Kalen and William Rudd, owners of the Property prior to the Campbells, executed a Declaration of Road Maintenance Agreement, recorded on January 5, 1978, as Book 1927, Page 475 of Official Records, that requires the performance of maintenance on the private roads leading from Hubbard Road to the Property, hereinafter the Road Maintenance Agreement.

3. Pursuant to a Purchase and Sale Agreement executed between the Campbells and the County of Placer (County), the Campbells agreed to grant a portion of Parcel A and Parcel B to the County and release County from responsibility to comply with terms, covenants, and provisions contained in the Road Maintenance Agreement.

4. Therefore, the Campbells hereby release County from responsibility to comply with terms, covenants, and provisions contained in the Road Maintenance Agreement.

Dated: Dec 17, 2013

Property Owner: Donald and Valerie Campbell, Husband and Wife

By: Donald Campbell
Name: Donald Campbell
Title: Husband

By: Valerie Campbell
Name: Valerie Campbell
Title: Wife

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

State of California

County of Placer

On 12-17-13 before me, Deborah Yue, Notary Public, personally appeared Donald Campbell and Valerie Campbell, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature _____ (Seal)

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

2

RECORDING REQUESTED BY

PLACER TITLE COMPANY

Escrow Number: 102-22682-LO

**AND WHEN RECORDED MAIL TO**

COUNTY OF PLACER
11476 C AVENUE
AUBURN, CA 95603

PLACER, County Recorder
JIM MCCAULEY
**DOC- 2004-0149016**
Acct 2-PLACER TITLE
Friday, NOV 05, 2004 14:30:00
NOC $0.00
Ttl Pd $0.00 Nbr-0001181136
scl/SL/1-5

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is : $0 City Transfer Tax: $0.00
(X) computed on full value of property conveyed, or
() computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **BOR PROPERTIES, LLC , A CALIFORNIA LIMITED LIABILITY COMPANY**

Hereby GRANT(S) to **COUNTY OF PLACER , A POLITICAL SUBDIVISION**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**See Exhibit "A" attached hereto and made a part hereof.**

Dated: November 04, 2004

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

| Name | Street Address | City & State |
|---|---|---|



O:\Grandeed.doc (4/2002)

**SIGNATURE PAGE FOR GRANT DEED**

BOR PROPERTIES, LLC, a California limited liability company

By: James J. Didion by Paul S. Aronowitz his attorney in fact
James J. Didion, Member
Paul S. Aronowitz
attorney in fact

By: The Dennis and Nancy Meyer Family Trust dated March 6, 1997, Member

Dennis G. Meyer, Co-Trustee

Nancy I. Meyer, Co-Trustee

By: The Aronowitz Family Trust, Member

Paul S. Aronowitz, Co-Trustee

Diane J. Aronowitz, Co-Trustee

STATE OF CALIFORNIA
COUNTY OF Placer

On 11/4/04 before me, L. ORY, personally appeared Dennis G. Meyer, Nancy I. Meyer, Paul S. Aronowitz, Diane J. Aronowitz personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument an acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument

WITNESS my hand and official seal.

Signature:
Commission Expiration Date: 11/8/05

TCC1 L. ORY COMM. #1328947 NOTARY PUBLIC - CALIFORNIA PLACER COUNTY My Comm. Expires Nov. 8, 2005 TCC1

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE, IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

Name | Street Address | City & State

# EXHIBIT "A"

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF THE WEST ONE-HALF OF SECTION 23, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDM. DESCRIBED AS FOLLOWS:

BEGINNING AT A ONE AND ONE-HALF INCH DIAMETER IRON PIPE MARKING THE SOUTH ONE-QUARTER CORNER OF THE ABOVE DESCRIBED SECTION 23, THENCE SOUTH 88 DEGREES, 48 MINUTES, 35 SECONDS WEST ALONG THE SOUTH LINE OF SAID SECTION 23 FOR A DISTANCE OF 229.58 FEET; THENCE LEAVING SAID SOUTH LINE THE FOLLOWING (13) CONSECUTIVE COURSES:
1) NORTH 34 DEGREES, 01 MINUTES, 42 SECONDS WEST FOR A DISTANCE OF 92.02 FEET; 2) NORTH 44 DEGREES, 14 MINUTES, 12 SECONDS WEST FOR A DISTANCE OF 57.88 FEET; 3) NORTH 50 DEGREES, 33 MINUTES, 43 SECONDS WEST FOR A DISTANCE OF 88.89 FEET; 4) NORTH 44 DEGREES, 13 MINUTES, 39 SECONDS WEST FOR A DISTANCE OF 55.27 FEET; 5) NORTH 30 DEGREES, 47 MINUTES, 28 SECONDS WEST FOR A DISTANCE OF 64.08 FEET; 6) NORTH 30 DEGREES, 16 MINUTES, 58 SECONDS WEST FOR A DISTANCE OF 82.57 FEET; 7) NORTH 37 DEGREES, 00 MINUTES, 48 SECONDS WEST FOR A DISTANCE OF 66.45 FEET; 8) NORTH 64 DEGREES, 13 MINUTES, 33 SECONDS WEST FOR A DISTANCE OF 100.68 FEET; 9) NORTH 35 DEGREES, 46 MINUTES, 27 SECONDS WEST FOR A DISTANCE OF 152.62 FEET; 10) NORTH 27 DEGREES, 37 MINUTES, 37 SECONDS WEST FOR A DISTANCE OF 150.09 FEET; 11) NORTH 00 DEGREES, 02 MINUTES, 10 SECONDS WEST FOR A DISTANCE OF 976.05 FEET; 12) NORTH 44 DEGREES, 49 MINUTES, 07 SECONDS WEST FOR A DISTANCE OF 1294.32 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 23; AND 13) SOUTH 89 DEGREES, 29 MINUTES, 07 SECONDS WEST ALONG SAID NORTH LINE FOR A DISTANCE OF 947.15 FEET TO THE WEST ONE-QUARTER CORNER OF SECTION 23; THENCE NORTH 01 DEGREE, 33 MINUTES, 55 SECONDS WEST ALONG THE WEST LINE OF SECTION 23 FOR A DISTANCE OF 2767.74 FEET TO THE NORTHWEST CORNER OF SECTION 23; THENCE SOUTH 87 DEGREES, 00 MINUTES, 24 SECONDS EAST ALONG THE NORTH LINE OF SECTION 23 FOR A DISTANCE OF 2759.61 FEET TO THE NORTH ONE-QUARTER CORNER OF SECTION 23; THENCE SOUTH 00 DEGREEES, 18 MINUTES, 18 SECONDS WEST ALONG THE NORTH-SOUTH CENTERLINE OF SECTION 23 FOR A DISTANCE OF 5197.37 FEET TO THE POINT OF BEGINNING.

APN: 026-080-006 AND 026-080-016 PORTION

RESERVING THEREFROM AN EASEMENT FOR ROAD AND UTILITY PURPOSES AND APPURTENANCES THERETO OVER, UNDER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY:

A STRIP OF LAND HAVING A RIGHT ANGLE WIDTH OF SEVENTY-FIVE (75.00) FEET LYING THIRTY SEVEN AND ONE-HALF (37.50) FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT A POINT ON THE SOUTH LINE OF THE ABOVE DESCRIBED SECTION 23, AND FROM SAID POINT AT A ONE AND ONE-HALF INCH DIAMETER IRON PIPE MARKING THE SOUTH QUARTER CORNER OF SAID SECTION 23 BEARS SOUTH 88 DEGREES, 48 MINUTES, 35 SECONDS WEST ALONG THE SOUTHERLY LINE OF SAID SECTION 23 FOR A DISTANCE OF 242.82 FEET; THENCE FROM THE POINT OF BEGINNING, LEAVING SAID SOUTH LINE NORTH 36 DEGREES, 41 MINUTES, 01 SECONDS WEST FOR A DISTANCE OF 111.43 FEET; THENCE NORTH 47 DEGREES, 07 MINUTES, 17 SECONDS WEST FOR A DISTANCE OF 60.00 FEET; THENCE NORTH 53 DEGREES, 23 MINUTES, 05 SECONDS WEST FOR A DISTANCE OF 119.21 FEET TO THE TERMINUS OF SAID EASEMENT.

NOTE: THE NORTHWESTERLY SIDELINE OF THE ABOVE DESCRIBED STRIP OF LAND SHALL BE LENGTHENED OR SHORTENED, AS THE CASE MAY BE, TO END IN THE NORTHEASTERLY LINE OF THE GRANTOR'S NAMED HEREIN AND THE SOUTHERLY LINE OF THE ABOVE DESCRIBED SECTION 23.

ACKNOWLEDGEMENT

CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Multi-Purpose Trail Easement attached hereto, pursuant to authority conferred by Resolution No. 2004-284.

SIGNATURE

DATED: Mary Beth Dietrich Deputy Director, Facility Services
11-05-04 TITLE:

ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 2004, from BOR Properties, LLC, a California Limited Liability Company, to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No. 2004-284 of said Board adopted on October 5, 2004, and the Grantee consents to the recordation thereof by it's duly authorized agent.

SIGNATURE COMPLETED BY (TYPE OR PRINT)

DATED: 11-05-04 Mary Beth Dietrich Mary Dietrich
TITLE: Deputy Director of Facility Services

ACCEPTANCE (2): BY BOARD OF SUPERVISORS:
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20____, from_____

to the County of Placer, a government agency, is hereby accepted by the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No._____ of said Board adopted on_____ _____, and the Grantee consents to the recordation thereof by it's duly authorized agent.

Dated:____ _____
Chairman, Board of Supervisors of the County of Placer

Rev.11/04/04

5

RECORDING REQUESTED BY

Placer Title Company

Escrow Number: 102-38653-DY

**AND WHEN RECORDED MAIL TO**

COUNTY OF PLACER,
DEPT OF FACILITY SERVICES
ATTN: PROPERTY MANAGER
11476 C AVENUE
AUBURN, CA 95603

PLACER, County Recorder
JIM MCCAULEY
DOC- 2013-0116652-00
PLACER TITLE - RECORDING
MONDAY, DEC 23, 2013 14:36:21
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00
Ttl Pd $0.00 Rcpt # 02328521
CLKCNMLFJ1/JC/1-6

A.P.N.: A PORTION OF 026-080-073

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is $0.00 City Transfer Tax: $0.00
(X) computed on full value of property conveyed, or
() computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

**RAJA HADDAD AND PAMELA HADDAD, TRUSTEES**
**OF THE RAJA AND PAMELA HADDAD REVOCABLE TRUST DATED JULY 14, 2010**

Hereby GRANT(S) to

**COUNTY OF PLACER,**
**A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**SEE EXHIBIT "B1" AND EXHIBIT "B2"**
**ATTACHED HERETO AND MADE A PART HEREOF**

Dated: December 08, 2013

THE RAJA AND PAMELA HADDAD REVOCABLE TRUST DATED JULY 14, 2010

By: Raja Haddad Trustee
RAJA HADDAD, TRUSTEE

By: Pamela Haddad Trustee
PAMELA HADDAD, TRUSTEE

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

Name Street Address City & State



slrpkg.doc

STATE OF CALIFORNIA
COUNTY OF Placer

On 12.18.13 before me, Deborah Yue, Notary Public,

personally appeared Raja Haddad and Pamela Haddad

,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: _____

Commission Expiration Date: _____

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

**EXHIBIT B-1**

# PURCHASE PROPERTY LEGAL DESCRIPTION
## New Property

All that portion of the property described in the Deed to Haddad recorded as Document 2011-0041594, Official Records of Placer County situated in the Northeast Quarter of Section 23, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California described as follows:

All that portion of said property described in the Deed to Haddad lying northerly of the center of Coon Creek.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

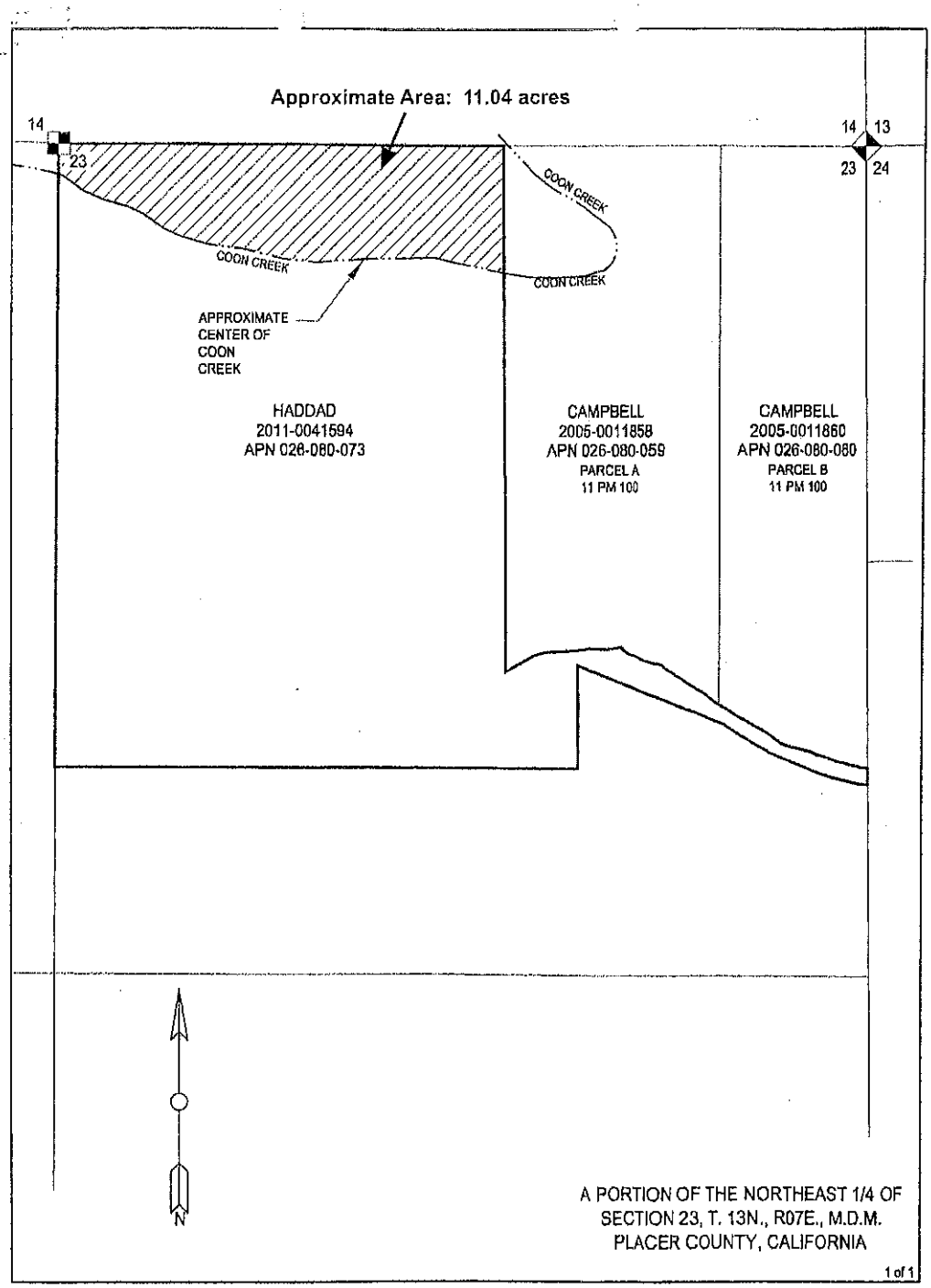
Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: MAY 8, 2013

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-2013
STATE OF CALIFORNIA

PH

**EXHIBIT B-2**

# PURCHASE PROPERTY MAP
## New Property




PH

FS

# Before the Board of Supervisors
# County of Placer, State of California

**IN THE MATTER OF: A RESOLUTION AUTHORIZING THE DIRECTOR OF FACILITY SERVICES, OR HIS DESIGNEE, TO EXECUTE TWO AGREEMENTS OF PURCHASE AND SALE BETWEEN THE COUNTY OF PLACER AND 1) DONALD AND VALERIE CAMPBELL AND 2) RAJA AND PAMELA HADDAD, AND TO ACQUIRE A TRAIL EASEMENT FROM LOIS M. LOUDON, AND EXECUTE ALL OTHER DOCUMENTATION, AND, TO TAKE ALL OTHER ACTIONS NECESSARY TO THESE PROPERTY TRANSACTIONS.**

**Resol. No:** 2013-074

The following **RESOLUTION** was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held April 23, 2013 by the following vote on roll call:

Ayes: DURAN, WEYGANDT, UHLER, MONTGOMERY, HOLMES

Noes: NONE

Absent: NONE

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST

ANN HOLMAN
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

Signed and approved by me after its passage.

Chair, Board of Supervisors

Attest:

Clerk of said Board

---

**WHEREAS**, Donald and Valerie Campbell are the fee-title owners APNs 026-080-059, 026-080-060 (Campbell); and,

**WHEREAS,** Raja and Pamela Haddad, trustees of the Raja and Pamela Revocable Trust dated July 14, 2010 are the fee-title owners of APN 026-080-073 (Haddad); and,

**WHEREAS,** Lois M. Loudon, Trustee of the Lois M. Loudon Revocable Trust executed April 20, 2004, is the fee-title owner of APN 026-130-041 (Loudon); and,

**WHEREAS**, the Campbell, Haddad, and Loudon properties are located in the Garden Bar/Big Hill area of Placer County and possess significant conservation, habitat, and public recreation values; and,

**WHEREAS,** for future public trail access, the County desires to acquire: 11.04 acres and 6.5 acres in fee, together with rights for future construction access, from Haddad and Campbell respectively; a 5.4 acre Conservation Easement from Campbell; and a 0.18 acre trail easement from Loudon.

**NOW, THEREFORE, BE IT RESOLVED,** the County Board of Supervisors does hereby authorize the Director of Facility Services, or his designee, on its behalf, to execute two Agreements of

Purchase and Sale one with Haddad and the other with Campbell to transfer the aforementioned property interests; to execute an Open Space Conservation Easement from Campbell; to accept and record a trail easement from Loudon; to execute all other documentation and take all other actions necessary to complete these transactions; and does hereby consent to the acceptance, granting, and recordation of the deeds and easements, subject to approval by County Counsel and Risk Management.

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

PTC 102-38873-DY

**RECORDING REQUESTED AND WHEN RECORDED PLEASE RETURN TO:**

**County of Placer**
**Department of Facility Services**
**ATTN: Property Manager**
**11476 C Avenue**
**Auburn, CA. 95603**

PLACER, County Recorder
JIM MCCAULEY
DOC- 2013-0116677-00
PLACER TITLE - RECORDING
MONDAY, DEC 23, 2013 14:49:50
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02328545
CLK7NMLFJ1/CC/3-7

Exempt from Recording Fees – Govt Code 27383

# COUNTY OF PLACER

# OFFER OF DEDICATION

## MULTIPURPOSE TRAIL EASEMENT

For the receipt of one dollar ($1.00) or other good and valuable consideration, Lois M. Loudon, Trustee of the Lois M. Loudon Revocable Trust, executed April 20, 2004, and Norman Loudon Pettit and Debora K. Pettit, Husband and Wife, as Joint Tenants, **the undersigned GRANTOR(S), hereby irrevocably offers for dedication to the County of Placer, State of California**, an Easement for Multipurpose Trail purposes for non-motorized ingress and egress together with the right of construction, maintenance, and all appurtenances pertaining thereto upon, over, under and across all that real property situated in the County of Placer, State of California. Said real property measures approximately 0.2 acres and is a northwestern portion of APN 026-130-041 (GRANTOR's property), bounded and described as follows:

*(Any and all interest in the property conveyed by grantor to the County of Placer pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the grantor.)*

**(See Attached Exhibits "A-1" & "A-2")**

Upon completion of trail construction over said Multipurpose Trail Easement as described above and the date the County of Placer's public trail providing trail connectivity from Hidden Falls Regional Park and the Bear River is open for the public ("Hidden Falls Trail"), GRANTOR shall have egress and ingress rights to Hidden Falls Trail across said Multipurpose Trail Easement through the gate installed by Placer Land Trust, at no cost to GRANTOR. GRANTOR's access through such gate shall be limited to GRANTOR for its sole and private use during established Park hours. GRANTOR shall be responsible for controlling access through said gate. Following the opening of Hidden Falls Trail, COUNTY and Placer Land Trust, a California nonprofit benefit corporation, and its employees, officers, and assigns, shall be allowed to pass through gate and GRANTOR's property for emergency purposes only.

GRANTOR(S):Lois M. Loudon Revocable Trust,
Executed April 20, 2004

Dated this 8 Day of OCTOBER, 20 13,

Lois M. Loudon Trustee
Sign name

**Lois M. Loudon, Trustee**
Print name and title

Debora K. Pettit
Sign Name

**Debora K. Pettit, Wife as Joint Tenant**
Print Name and Title

Norman Loudon Pettit
Sign name

**Norman Loudon Pettit, Husband as Joint Tenant**
Print name and title

See following page for Acknowledgement

## ACKNOWLEDGEMENT

State of California }
County of Placer }

On _____ before me,
_____(name, title),
personally appeared _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal) _____ Signature

**CAPACITY CLAIMED BY SIGNER**

☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES

☐ CORPORATE OFFICER(S)
_____ TITLE(S)
_____ COMPANY

☐ PARTNER(S)
_____ PARTNERSHIP

☐ ATTORNEY-IN-FACT
_____ PRINCIPAL(S)

☐ TRUSTEE(S)
_____ TRUST

☐ OTHER
_____ TITLE(S)
_____ ENTITY(IES) REPRESENTATIVE

**CONSENT TO RECORDATION:**
The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, but reserves the right to do so in the future, pursuant to authority conferred by Resolution No. 2013-074.

10-21-13
DATE

Mary Dietrich
SIGN NAME

MARY DIETRICH, Director
PRINT NAME AND TITLE

**ACCEPTANCE (1): BY AUTHORIZED AGENT:**
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20____, from _____
To the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No. 2013-074 adopted on April 23, 2013, and the Grantee consents to the recordation thereof by it's duly authorized agent.

_____
DATE

_____
SIGN NAME

_____
PRINT NAME AND TITLE

State of California )
County of Placer )

On october 8, 2013, before me, D. YUE, Notary Public, personally appeared DEBORA K. PETTIT, NORMAN LOUDON PETTIT AND LOIS M. LOUDON, proved to me on the basis of satisfactory evidence to be the person whose name(s) is/are subscribed to the to the within instrument, and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signatures(s) on the instrument the person(s) acted, executed the instrument..

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary

Seal

D. YUE

My Commission Expires: 8-30-17

D. YUE
Commission # 2035677
Notary Public - California
Placer County
My Comm. Expires Aug 30, 2017

Notary Name: D. YUE

Notary Phone Number: 530-885-7722

Notary Registration No: 2035677

County of Principal Place of Business: PLACER

ATTACHED TO COUNTY OF PLACER, OFFER OF DEDICATION, MULTIPURPOSE TRAIL EASEMENT

**EXHIBIT A-1**

# LEGAL DESCRIPTION

## Multi-Purpose Trail Easement

All that portion of the property described in the Deed to Loudon recorded as Document 2011-0079644, Official Records of Placer County, being a portion of the Northwest Quarter of the Northwest Quarter of Section 24, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California described as follows:

Beginning at the Northwest corner of said Section 24; thence from said Point of Beginning, along the North line of said Section 24, East, 125.00 feet; thence leaving said North line in a Southwesterly direction to a point on the West line of said Section 24 that bears South, along said west line 125.00 feet from the point of beginning; thence along the west line of said Section 24 North, 125.00 feet to the Point of Beginning.

End of description

Description prepared by:

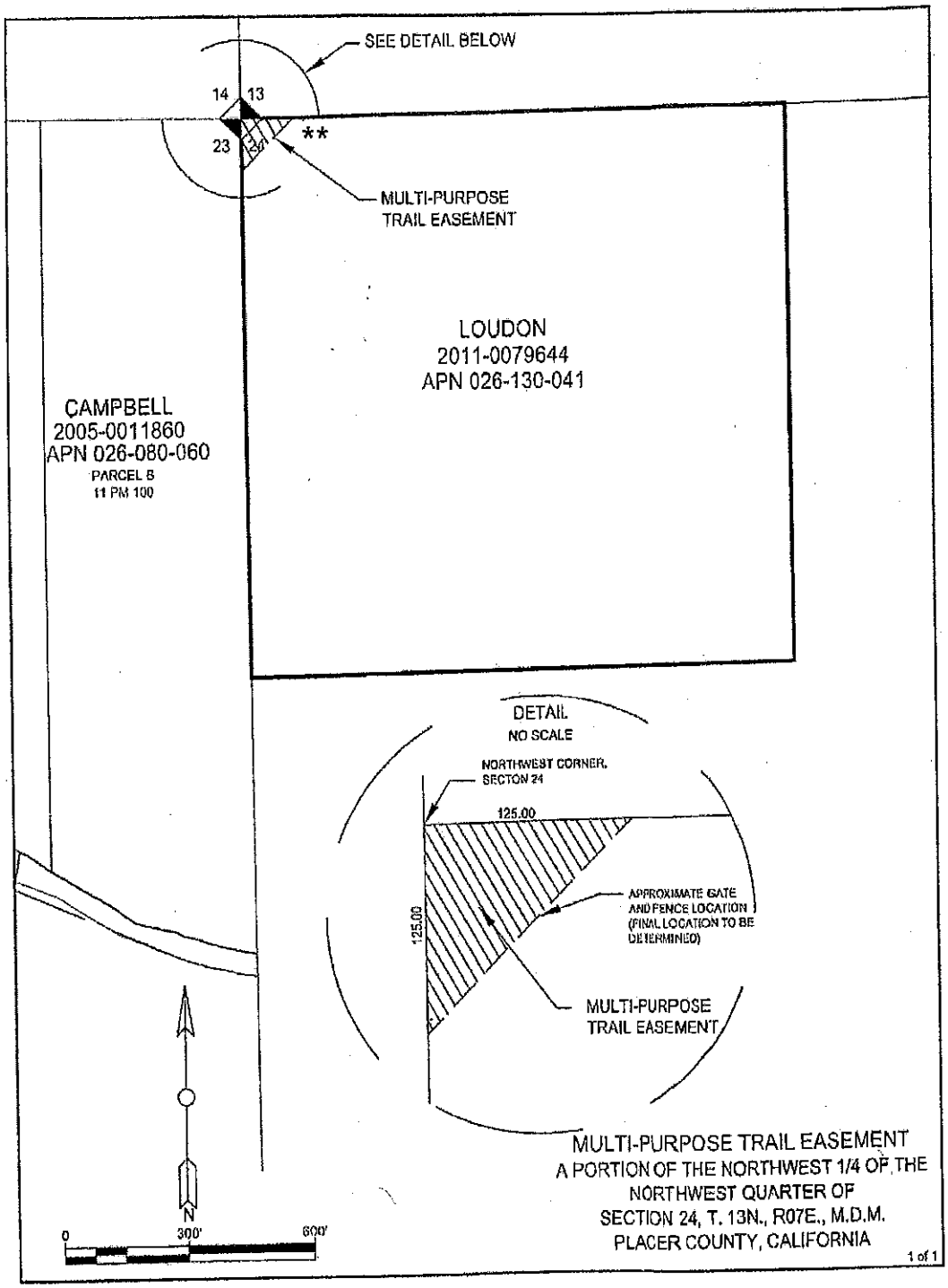
**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 4-23-13

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-2013
STATE OF CALIFORNIA

**EXHIBIT A-2**

## MULTIPURPOSE TRAIL EASEMENT




**24

Order No.: 102-38873
Property Address: 8575 Hubbard Road, Auburn, CA 95602
Loan No.:

**CONSENT OF LIEN HOLDER**
**AND SUBORDINATION OF LIEN**

The undersigned beneficiary under that certain Deed of Trust executed by Norman Loudon Pettit and Debora K. Pettit as Trustor, and Placer Title Company as Trustee, dated September 16, 2010 and recorded December 8, 2010 Instrument No. 2010-0102233 Official Records of Placer County, State of California, consents to all of the provisions contained in the Grant of Multipurpose Trail Easement Agreement for the benefit of the County of Placer, attached hereto and made a part hereof and agrees that the lien of the Deed of Trust shall be junior and subordinate and subject to said Grant of Multipurpose Trail Easement.

Dated:

Lender: Mark and Nancy Weiner, successor trustees of the Kopp Family Revocable Trust

By: Mark Weiner
Name: Mark Weiner
Title: Successor Trustee of the Kopp Family Revocable Trust

By: Nancy Weiner
Name: Nancy Weiner
Title: Successor Trustee of the Kopp Family Revocable Trust

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

State of California
County of Sacramento

On 10/14/13 before me, Erica M. Gibson, Notary Public, personally appeared Mark Weiner + Nancy Weiner, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature _____ (Seal)

ERICA M. GIBSON
COMM. # 2006731
NOTARY PUBLIC - CALIFORNIA
SACRAMENTO COUNTY
COMM. EXPIRES FEB. 8, 2017

Order No.: 102-38873
Property Address: 8575 Hubbard Road, Auburn, CA 95602
Loan No.:

## CONSENT OF LIEN HOLDER AND SUBORDINATION OF LIEN

The undersigned beneficiary under that certain Deed of Trust executed by Lois M. Loudon, Norman Loudon Pettit and Debora K. Pettit as Trustor, and Old Republic Title Company as Trustee, dated February 28, 2012 and recorded March 6, 2012 Instrument No. 2012-0019570 Official Records of Placer County, State of California, consents to all of the provisions contained in the Grant of Multipurpose Trail Easement Agreement for the benefit of the County of Placer, attached hereto and made a part hereof and agrees that the lien of the Deed of Trust shall be junior and subordinate and subject to said Grant of Multipurpose Trail Easement.

Dated:

Lender: Roy and June Matsunaga, Husband and Wife, as Joint Tenants

By: Roy Matsunaga
Name: Roy Matsunaga
Title: Husband

By: June Matsunaga
Name: June Matsunaga
Title: Wife

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

State of California

County of Los Angeles

On 10.23.2013 before me, Shanna T. Hemphill, Notary Public, personally appeared Roy Matsunaga and June Matsunaga, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature _____ (Seal)

SHANNA T. HEMPHILL
Commission # 2008951
Notary Public - California
Los Angeles County
My Comm. Expires Feb 28, 2017

PLACER, County Recorder
JIM MCCAULEY
**DOC- 2003-0210570**
Acct 2-PLACER TITLE
Tuesday, DEC 23, 2003 14:30:00
NOC $0.00
Ttl Pd $0.00 Nbr-0001000883
odn/DN/1-4

RECORDING REQUESTED BY
PLACER TITLE CO.
110-1278

Project Name

When recorded return to
Placer County Department
Of Public Works

**COUNTY OF PLACER**

**Department of Public Works**

# OFFER OF DEDICATION

For the receipt of one dollar ($1.00) or other good and valuable consideration, J. Spears Family Enterprises, L.P., a California limited partnership, _____,
**the undersigned GRANTOR(S), HEREBY IRREVOCABLY OFFERS FOR DEDICATION TO THE COUNTY OF PLACER, STATE OF CALIFORNIA**, an easement for road purposes and incidentals thereto, including the utility rights over, on, under and across all that real property situated in the County of Placer, State of California, bounded and described as follows:
*(Any and all interest in the property conveyed by grantor to the County of Placer pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the grantor.)*

See Exhibit A, attached hereto and made a part hereof.

---

J. Spears Family Enterprises L.P.
a California limited partnership
GRANTOR(S)

Dated this_____Day of _____, 20____.

Julia M Spears

Trustee / Beneficiary_____

Julia Spears, General Partner

Recording Reference_____

See reverse side for acknowledgement

cn/

# ACKNOWLEDGEMENT

State of California
County of Placer

On 12/22/03 before me, Julia E. Pickard (name, title of officer),
Personally appeared Juliá M. Spears
θ personally known to me –OR- θ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

JULIA E. PICKARD
Comm. # 1337941
NOTARY PUBLIC - CALIFORNIA
Placer County
My Comm. Expires Jan. 6, 2006

Signature

**CAPACITY CLAIMED BY SIGNER**

θ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES

θ CORPORATE OFFICER(S)
TITLE(S)
COMPANY

θ PARTNER(S) PARTNERSHIP

θ FACT
PRINCIPAL(S)

θ TRUSTEE(S) TRUST
TITLE(S)

θ OTHER
TITLE(S)
ENTITY(IES) REPRESENTED
ENTITY(IES) REPRESENTED

**CONSENT TO RECORDATION:**
The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, but reserves the right to do so in the future, pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002.

SIGNATURE

DATED:_____ _____
TITLE:

**ACCEPTANCE (1): BY AUTHORIZED AGENT:**
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20_____, from J. Spears Family Enterprises, L.P., a California limited partnership to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution No. 2003-292 adopted November 18, 2003, and the Grantee consents to the recordation thereof by it's duly authorized agent.

SIGNATURE COMPLETED BY (TYPE OR PRINT)

DATED:_____ _____
TITLE:

**ACCEPTANCE (2): BY BOARD OF SUPERVISORS:**
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20____, from_____ to the County of Placer, a government agency, is hereby accepted by the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No._____ of said Board adopted on_____ _____, and the Grantee consents to the recordation thereof by it's duly authorized agent.

Dated:_____ _____
Chairman, Board of Supervisors of the County of Placer

Rev.8/03

# ACKNOWLEDGEMENT

State of California
County of Placer

On_____before me,_____(name, title of officer),
Personally appeared_____
▶ personally known to me –OR- ▶ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature

**CAPACITY CLAIMED BY SIGNER**

▶ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES

▶ CORPORATE OFFICER(S)
_____ TITLE(S)
_____ COMPANY

▶ PARTNER(S) _____ PARTNERSHIP

▶ ATTORNEY-IN-FACT
_____ PRINCIPAL(S)

▶ TRUSTEE(S) _____ TRUST

▶ OTHER _____ TITLE(S)

_____ TITLE(S)

_____ ENTITY(IES) REPRESENTED

_____ ENTITY(IES) REPRESENTED

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SIGNATURE COMPLETED BY (TYPE OR PRINT)

DATED: December 22nd 2003 _____ Thomas Miller
TITLE: Director of Facility Services

**ACCEPTANCE (2): BY BOARD OF SUPERVISORS:**
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20____, from_____
to the County of Placer, a government agency, is hereby accepted by the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No._____ of said Board adopted on_____
_____, and the Grantee consents to the recordation thereof by it's duly authorized agent.

Dated:_____ _____
Chairman, Board of Supervisors of the County of Placer

Rev.8/03

**EXHIBIT "A"**

A portion of the southeast quarter of Section 17, Township 13 North, Range 7 East M.D.M., Placer County, California more particularly described as follows:

Commencing at the center of said Section 17; thence South 00°03'21" East along the north and south centerline of said Section 17 a distance of 452.73 feet to the centerline of Garden Bar Road as shown on that Record of Survey filed in Book 9 of Surveys, at Page 53, Placer County Records; thence leaving said north and south centerline South 89°54'54" East along said Garden Bar Road centerline a distance of 151.28 to the centerline of a private road as shown on said Record of Survey the Point of Beginning; thence from said Point of Beginning continuing along said Garden Bar Road centerline the following two (2) courses:

1) South 89°54'54" East a distance of 60.29 feet
2) Along the arc of a tangent 81.00 foot radius curve to the left, through a central angle of 63°34'34" a distance of 89.88 feet, the chord of which bears North 58°17'49" East a distance of 85.34 feet;

thence leaving said Garden Bar Road centerline South 23°30'45" East a distance of 131.13 feet to the centerline of a private road as shown on said Record of Survey; thence along said private road centerline North 67°49'33" West a distance of 200.00 feet to the Point of Beginning.

Containing 7,103 square feet more or less.

The meridian of this description is identical to the Record of Survey filed in Book 9 of Surveys at Page 53 Placer County Records.

LICENSED LAND SURVEYOR
CHARLES B. GRANT
Exp. 3-31-06
No. 6158
STATE OF CALIFORNIA

Charles B. Grant

RECORDING REQUESTED BY:
PLACER TITLE CO.
112-1278

RECORDING REQUESTED BY AND

WHEN RECORDED, PLEASE MAIL TO:
County of Placer
Department of Facility Services
1476 C Avenue
Auburn, CA 95603
Attn: Property Manager

PLACER, County Recorder
JIM MCCAULEY
DOC- 2003-0210569
Acct 2-PLACER TITLE
Tuesday, DEC 23, 2003 14:30:00
NOC $0.00
Ttl Pd $0.00 Nbr-0001000882
odn/DN/1-6

DOCUMENTARY TRANSFER TAX:
Exempt pursuant to CA R&T §11922

Original in Acquisition File

APNs: 026-072-045, 026-072-047, 026-072-049-510, 026-072-050-510, 026-072-054 through 026-072-063 and 026-080-065 through 026-080-072, inclusive

# GRANT DEED

For good and valuable consideration, the receipt of which is hereby acknowledged, The Trust for Public Land, a California nonprofit public benefit corporation ("Grantor"), does hereby grant, bargain, sell and convey to the County of Placer, a political subdivision of the State of California ("Grantee"), and its assigns, all the real property situated in the County of Placer, State of California, described at Exhibit A attached hereto and incorporated herein by this reference (the "Property").

SUBJECT to easements, reservations and restrictions of record.

TOGETHER WITH a nonexclusive easement for vehicular and nonmotorized transportation (including without limitation pedestrian, bicycle or equestrian) ingress and egress, forty (40) feet in width, lying twenty (20) feet on each side of the centerline of the existing private road as shown on the Record of Survey recorded July 15, 1983 at Book 9, Placer County Records of Surveys, Page 53 with a vehicular road surface of no more than twenty-four (24) feet in width with the exception of pull-outs as may be required for fire control purposes, from the intersection of Garden Bar Road, a public road, to the intersection of such existing road and the western boundary of the property described herein, and an appurtenant drainage and cut or fill slope easement as needed to maintain such access easement. All trails and paved roads benefiting Grantee shall be contained within said forty (40) foot easement area.

TO HAVE AND TO HOLD, the above granted and described premises, together with all tenements, hereditaments, and appurtenances, including water and water rights, minerals and mineral rights, buildings, structures, improvements and easements, thereto belonging or

appertaining, if any, and any reversions, remainders, rents, issues, or profits thereof, unto the COUNTY OF PLACER.

IN WITNESS WHEREOF, Grantor has executed this instrument this 18th day of December, 2003.

THE TRUST FOR PUBLIC LAND,
a California nonprofit public benefit corporation

By: _____
M. Holly Haugh, Regional Counsel

ACKNOWLEDGMENT

State of CALIFORNIA )
)ss.
County of SAN FRANCISCO )

On this 18th day of December, 2003, before me, Patricia A. Strickland, a notary public, personally appeared M. Holly Haugh, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

_____
Notary Public

My commission expires 10/30/04

PATRICIA A. STRICKLAND
Commission # 1282231
Notary Public - California
San Francisco County
My Comm. Expires Oct 30, 2004

Spears/GD1 Dispo.doc

# ACKNOWLEDGEMENT

State of California
County of Placer

On_____before me,_____(name, title of officer),
Personally appeared_____
► personally known to me –OR- ► proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature

**CAPACITY CLAIMED BY SIGNER**

► INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES

► CORPORATE OFFICER(S)
_____
TITLE(S)
_____
COMPANY

► PARTNER(S) _____ PARTNERSHIP

► ATTORNEY-IN-FACT
_____
PRINCIPAL(S)

► TRUSTEE(S) _____ TRUST

► OTHER _____ TITLE(S)

_____
TITLE(S)

_____
ENTITY(IES) REPRESENTED

_____
ENTITY(IES) REPRESENTED

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SIGNATURE

DATED:_____ _____
TITLE:

**ACCEPTANCE (1): BY AUTHORIZED AGENT:**
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20_____, from The Trust for Public Land, a California nonprofit public benefit corporation to the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution No. 2003-292 adopted November 18, 2003, and the Grantee consents to the recordation thereof by it's duly authorized agent.

SIGNATURE COMPLETED BY (TYPE OR PRINT)

DATED: December 22nd 2003 Thomas Miller
TITLE: Director of Facility Services

**ACCEPTANCE (2): BY BOARD OF SUPERVISORS:**
This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20____, from_____
to the County of Placer, a government agency, is hereby accepted by the Board of Supervisors of the County of Placer pursuant to authority conferred by Resolution No._____ of said Board adopted on_____
_____, and the Grantee consents to the recordation thereof by it's duly authorized agent.

Dated:_____ _____
Chairman, Board of Supervisors of the County of Placer

Rev 8/03

# Before the Board of Supervisors
# County of Placer, State of California

**In the matter of:** A Resolution authorizing the Director of Facility Services to execute the Purchase and Sale Agreement and any other documents necessary to complete the acquisition of approximately 961 acres of the Spears Ranch near Lincoln.

**Resol. No:** 2003-292
**Ord. No:**
**First Reading:**

The following RESOLUTION was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held November 18, 2003, by the following vote on roll call:

Ayes: SANTUCCI, WEYGANDT, GAINES, BLOOMFIELD

Noes: NONE

Absent: WHITE

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE
ATTEST

ANN HOLMAN
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

Signed and approved by me after its passage.

Chairman, Board of Supervisors

Attest:
Clerk of said Board
Ann Holman

---

WHEREAS, the Trust for Public Land (TPL) holds an Option Agreement to purchase 961 acres of the Spears Ranch near Lincoln; and

WHEREAS, acquisition of the 961 acres meets the goals and objectives of the Placer Legacy Open Space and Agricultural Program; and

WHEREAS, on July 8, 2003, the Placer County Board of Supervisors authorized negotiations with TPL for the County's acquisition of this property.

THEREFORE, BE IT RESOLVED that the Placer County Board of Supervisors does 1) hereby authorize the Director of Facility Services to execute on behalf of the County a Purchase and Sale Agreement and any other documents necessary to complete the acquisition of approximately 961 acres of the Spears Ranch near Lincoln; 2) hereby authorize any disbursements of County funds necessary to complete the transaction; and 3) hereby consent to the recordation of the deeds for said property described in the Purchase and Sale Agreement.

Order No. 110-1278*1
Policy No. CNJP-PROFORMA

## EXHIBIT "A" LEGAL DESCRIPTION

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE:

THE SOUTH HALF OF SECTION 16, (ALSO KNOWN AS LOTS 66, 67, 72 AND 73, INCLUSIVE OF HEREDIA ESTATE), THE NORTH HALF OF SECTION 21, (THE EAST HALF OF SAID NORTH HALF ARE LOTS 58 TO 61 INCLUSIVE OF HEREDIA ESTATE) AND THE NORTH HALF OF SECTION 22 (ALSO KNOWN AS LOTS 54 TO 57 AND 62 TO 65, INCLUSIVE OF HEREDIA ESTATE, AS PER MAP IN THE OFFICE OF THE PLACER COUNTY RECORDER) ALL IN TOWNSHIP 13 NORTH, RANGE 7 EAST,MDB&M.
EXCEPTING THEREFROM LOTS 68, 69, 70 AND 71 OF THE HEREDIA ESTATE FILED IN BOOK A OF MAPS, AT PAGE 15, PLACER COUNTY RECORDS.

PARCEL TWO:

LOTS 68, 69, 70 AND 71, AS SHOWN ON THE MAP OF THE HEREDIA ESTATE FILED IN BOOK A OF MAPS, AT PAGE 15, PLACER COUNTY RECORDS, LOCATED IN SECTION 16, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDM, PLACER COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 70, SAID POINT BEING IDENTICAL TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 16; THENCE FROM SAID POINT OF BEGINNING NORTH 89 DEGREES 26 MINUTES 37 SECONDS EAST ALONG THE NORTH BOUNDARY OF SAID LOTS 70 AND 71, A DISTANCE OF 2,693.07 FEET TO THE NORTHEAST CORNER OF SAID LOT 71, SAID POINT BEING IDENTICAL TO THE NORTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE SOUTH 02 DEGREES 37 MINUTES 09 SECONDS WEST ALONG THE EAST BOUNDARY OF SAID LOTS 71 AND 68 A DISTANCE OF 2,609.00 FEET TO THE SOUTHEAST CORNER OF SAID LOT 68, SAID POINT BEING IDENTICAL TO THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE SOUTH 89 DEGREES 23 MINUTES 05 SECONDS WEST ALONG THE SOUTH BOUNDARY OF SAID LOTS 68 AND 69 A DISTANCE OF 2,653.50 FEET TO THE SOUTHWEST CORNER OF SAID LOT 69, SAID POINT BEING IDENTICAL TO THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 01 DEGREES 44 MINUTES 54 SECONDS EAST ALONG THE WEST BOUNDARY OF SAID LOTS 69 AND 70 A DISTANCE OF 2,609.82 FEET TO THE POINT OF BEGINNING.

APNS: 026-072-045, 026-072-047, 026-072-049-510, 026-072-050-510, 026-072-054 THROUGH 026-072-063, INCLUSIVE AND 026-080-065 THROUGH 026-080-072, INCLUSIVE

PARCEL THREE:

AN EASEMENT FOR INGRESS AND EGRESS AS GRANTED TO BRADLEY ALAN SPEARS AND GAYLE LYNN SPEARS, HUSBAND AND WIFE AS JOINT TENANTS, IN DEED RECORDED OCTOBER 20, 1997 AS INSTRUMENT NO. 97-0065040.

EXCEPTING THEREFROM ANY PORTION LYING WITHIN PARCEL ONE DESCRIBED HEREINABOVE.

PARCEL FOUR:

Order No. 110-1278*1
Policy No. CNJP-PROFORMA

**EXHIBIT "A" LEGAL DESCRIPTION**
**(Continued)**

A NON-EXCLUSIVE EASEMENT FOR VEHICULAR AND NONMOTORIZED TRANSPORTATION (INCLUDING WITHOUT LIMITATION PEDESTRIAN, BICYCLE OR EQUESTRIAN)INGRESS AND EGRESS, FORTY (40) FEET IN WIDTH, LYING TWENTY (20) FEET ON EACH SIDE OF THE CENTERLINE OF THE EXISTING PRIVATE ROAD AS SHOWN ON THE RECORD OF SURVEY RECORDED JULY 15, 1983 AT BOOK 9, PLACER COUNTY RECORDS OF SURVEYS, PAGE 53 WITH A VEHICULAR ROAD SURFACE OF NO MORE THAN TWENTY-FOUR (24) FEET IN WIDTH WITH THE EXCEPTION OF PULL-OUTS AS MAY BE REQUIRED FOR FIRE CONTROL PURPOSES, FROM THE INTERSECTION OF GARDEN BAR ROAD, A PUBLIC ROAD, TO THE INTERSECTION OF SUCH EXISTING ROAD AND THE WESTERN BOUNDARY OF THE PROPERTY DESCRIBED HEREIN, AND AN APPURTENANT DRAINAGE AND CUT OR FILL SLOPE EASEMENT AS NEEDED TO MAINTAIN SUCH ACCESS EASEMENT. ALL TRAILS AND PAVED ROADS BENEFITING GRANTEE SHALL BE CONTAINED WITHIN SAID FORTY (40) FOOT EASEMENT AREA.

Placer County
Department of Facility Services
11476 C Avenue
Auburn, CA 95603

# NOTICE OF EXEMPTION

**To:** _X_ County Clerk
County of Placer

___ Office of Planning & Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

**Project Title:** Spears Ranch Acquisition

**Project Location:** Agreement of Purchase and Sale for approximately 961 acres of the Spears Family Ranch located on Garden Bar Road near Lincoln, in unincorporated Placer County. (APNs: 026-072-045, 026-072-047, 026-072-049-510, 026-072-054 through 026-072-063 inclusive, 026-080-065 through 026-080-072 inclusive, and 026-072-050-510). The Property is separated into one 40-acre parcel on which a residence is located and remaining parcels totaling approximately 921 acres.

**Description of Project:** The scope of this Project includes the preparation of a Purchase and Sale Agreement, and its execution by the County of Placer and The Trust for Public Land.

**Name of Public Agency Making Environmental Determination:** Placer County Department of Facility Services.

**Name of Person or Agency Carrying Out Project:** Placer County Department of Facility Services, Property Management Division.

**Reasons Why Project is Exempt:** The acquisition is categorically exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15316. That section provides for the transfer of ownership of land in order to establish a park where the land is in a natural condition and a park management plan has not been prepared. Any future park development will require discretionary action by the Placer County Board of Supervisors. The acquisition is also exempt from CEQA under Guidelines Sections 15317 and 15325, which each exempt property acquisitions made in order to maintain the open space character of an area. The acquisition is also exempt under Guidelines Section 15301 as it will continue existing facilities and activities on the site. It can also be seen with certainty that this action will have no significant impact under Guidelines Section 15061(b)(3).

POSTED NOV 18 2003
through
JIM McCAULEY, COUNTY CLERK
By R Drone
Deputy Clerk

**Lead Agency Contact Person:** Mary Dietrich

**Area Code/Telephone Number:** (530) 886-4957

Mary Dietrich
Lead Agency Signature

11-18-03
Date

#1983

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

Recorded at the request of:
Placer Land Trust
102-28900-DY
When recorded return to:
Placer Land Trust
Attn: Executive Director
11521 Blocker Drive, Suite 100
Auburn, CA 95603

#102-28900 DY

PLACER, County Recorder
JIM MCCAULEY
DOC- 2007-0099531-00
Acct 2-PLACER TITLE
Wednesday, OCT 17, 2007 14:30:00
MIC $3.00|AUT $111.00|SBS $110.00
DOC$1,430.00|REC $113.00|PEN $2.00
Ttl Pd $1,769.00 Nbr-0001714819
had/HD/1-111

DOCUMENTARY TRANSFER TAX $ 1430.00
___Computed on full value of property conveyed OR
___Value less remaining encumbrances
The Undersigned
Signature of declarant
X Unincorporated area City of
Parcel No.

# DEED OF CONSERVATION EASEMENT
## (Liberty Ranch Big Hill Preserve, Placer County)

**THIS DEED OF CONSERVATION EASEMENT is granted this 14 day of September, 2007, by H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994, having an address at P.O. Box 2332, Roseville, CA, 95746-2332 ("Grantors"), to Placer Land Trust, a California nonprofit public benefit corporation, having an address at 11521 Blocker Drive, Suite 100, Auburn, CA, 95603 ("Grantee").**

## RECITALS

A. Grantors are the sole owners in fee simple of certain real property in Placer County, California, sometimes referred to as the Freiheit Big Hill Preserve or the Liberty Ranch Big Hill Preserve, approximately 321 acres designated as Assessor's Parcel Number 026-061-013, more particularly described in Attachment A, Legal Description of Property, attached hereto (the "Property").

B. A minimum of 313 acres of the Property shall be an oak woodland preserve, more particularly described in Attachment B, Description of Preserve, attached hereto (the "Preserve").

C. A maximum of eight acres of the Property shall be reserved for the building of one homesite, more particularly described in Attachment C, Description of Homesite Reserve Area, attached hereto (the "Homesite Reserve Area").

C. The Preserve possesses exceptional natural, recreational and open space values of great importance to Grantors and Grantee (collectively, the "Parties") the Sierra foothills ecosystem, and the people of Placer County and the State of California. These values are collectively referred to as the "Conservation Values".

D. The specific Conservation Values of the Preserve are further documented in an inventory of relevant features of the Preserve, dated July 27, 2007, described in Attachment D, Baseline Documentation Report for Liberty Ranch Big Hill Preserve, attached hereto, which consists



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of reports, maps, photographs, and other documentation that the Parties agree provide, collectively, an accurate representation of the Preserve at the time of this grant and which is intended to serve as an objective, though nonexclusive, information baseline for monitoring compliance with the terms of this grant (the "Baseline Documentation").

E. Grantors intend that the Conservation Values of the Preserve be permanently preserved and maintained by permitting only those land uses on the Property that do not significantly impair or interfere with the Conservation Values. Grantors intend to use the Property consistent with the purpose of this Easement, and adhere to all terms, covenants and conditions of this Easement.

F. Grantors intend that the Preserve be permanently preserved, maintained and managed as a protected natural preserve for the benefit of oak woodlands and associated habitat, in accordance with the requirements set forth in Attachment E, Management Plan for Liberty Ranch Big Hill Preserve (the "Management Plan").

G. Grantors intend, as owners of the Property and for good and valuable consideration, to convey to Grantee the right to preserve and protect the Conservation Values of the Property and Preserve in perpetuity according to the standards referenced above and the terms hereinafter set forth.

H. Grantee is a publicly supported, tax-exempt nonprofit organization and a qualified organization under Sections 501(c)(3) and 170(h), respectively, of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder (the "Internal Revenue Code"), and Section 815.3 of the California Civil Code, and whose primary purpose is the permanent preservation of natural and agricultural lands in the Placer County region. Grantee is willing and able to assume the responsibility to monitor and enforce the terms and conditions of this Easement.

I. This Deed of Conservation Easement is being acquired, in part, with funds from the California Wildlife Foundation, a private nonprofit organization, and the State of California, acting through the Resources Agency and the Wildlife Conservation Board, and the County of Placer.

J. This Easement supports public policies of the State of California, including Section 1362 of the California Fish and Game Code, in which the California Legislature has declared an intention to (1) support and encourage voluntary, long-term private stewardship of California's oak woodlands, and (2) provide incentives to protect and encourae farming and ranching operations that are operated in a manner that protects and promotes healthy oak woodlands and for the protection of oak trees providing superior wildlife values on private lands.

**NOW, THEREFORE**, for good and valuable consideration, in consideration of the above and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the State of California, Grantors hereby voluntarily grants and conveys to Grantee a Conservation Easement ("Easement") in perpetuity over the Property of the nature and character

and to the extent hereinafter set forth.

1. **Purpose.** It is the purpose of this Easement to assure that the Preserve will be retained forever in its natural, open space, and scenic condition, and to protect forever the Conservation Values of the Preserve as specified in the Baseline Documentation. Further, it is the purpose of this Easement to prevent any use or development of the Property that will significantly damage or impair the Preserve or its Conservation Values, with the exception of development in the Homesite Reserve Area as allowed and limited by this Easement and the incorporated Management Plan. Grantors and Grantee intend that this Easement will confine the use of the Property only to such activities that are consistent with the purpose and terms of this Easement and the incorporated Management Plan.

2. **Rights of Grantee.** To accomplish the purpose of this Easement the following rights are conveyed to Grantee by this Easement:

   (a) To preserve and protect the Conservation Values.

   (b) To enter upon the Property at reasonable times and at least annually in order to monitor compliance with and otherwise enforce the terms of this Easement, to assess the condition of the Property including without limitation the Conservation Values, and to perform, monitor, and enforce the terms of the Management Plan, in accordance with Section 6.

   (c) To allow State of California representatives access to the Property not less than once in any period of three calendar years with advance notice to the Grantors and preferably in the company of Grantee, to assess Grantee's compliance with the terms, covenants, and conditions of one or more grant agreements between the State of California Resources Agency and Wildlife Conservation Board and the Grantee.

   (d) To prevent any activity on or use of the Property that is inconsistent with the purpose of this Easement and the Management Plan.

   (e) To require the restoration of such areas or features of the Preserve that may be damaged by any inconsistent activity or use, pursuant to the remedies set forth in Section 6.

   (f) To approve the construction of a public trail on the Preserve as defined in the Management Plan.

   (g) To post one or more signs on the Preserve indicating the participation of the State of California and other funders in Grantee's purchase of the Easement.

   (h) To monitor the Grantors' use, management, and maintenance of the Property, as defined in the Management Plan, and require mutually agreeable corrective actions if inconsistent practices are observed.

3. **Prohibited Uses.** Any activity on or use of the Property inconsistent with the purpose of this Easement or the protection of the Conservation Values is prohibited. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited:

(a) The legal or *de facto* division, subdivision, or partitioning of the Property for any purpose.

(b) The placement, construction or maintenance of any buildings, structures or other improvements on the Preserve, other than roads and utilities for purposes of access to and servicing of the Homesite Reserve Area as allowed in the Management Plan, and fencing, trails, and signage that is allowed by the Management Plan.

(c) Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or below the surface of the Property, or granting or authorizing surface entry for any of these purposes. Notwithstanding, said activities shall be allowed to the extent they are part of and reasonably required for construction of improvements on the Homesite Reserve Area.

(d) The cutting of trees or the removal or alteration of vegetation on the Preserve, including weed abatement, other than Grantee-approved activities set forth in the Management Plan including but not limited to: the removal of non-native/invasive plants; the removal or pruning of trees or vegetation for trails, fire suppression, public health and safety; limited removal or alteration of vegetation associated with installation and maintenance of roads and utilities for the purposes of access to and servicing of the Homesite Reserve Area as allowed in the Management Plan.

(e) Planting, introduction or dispersal of non-native or exotic plant or animal species on the Preserve, with the exception of livestock for grazing that is compatible with the Management Plan.

(f) Unseasonable watering on the Preserve.

(g) Agricultural activity on the Preserve, other than livestock grazing that is compatible with the Management Plan.

(h) Use of fertilizers, herbicides, pesticides, biocides, or other agricultural chemicals on the Preserve unless allowed by the Management Plan.

(i) The altering of the general topography of the Preserve other than as required by law for public health and safety, or in conjunction with and as reasonably required for the installation of roads and utilities for the purposes of access to and servicing of the Homesite Reserve Area as allowed in the Management Plan.

(j) Mosquito abatement activities on the Preserve, unless required by law.

(k) Incompatible fire protection activities on the Preserve.

(l) Transferring any water right necessary to maintain or restore the Conservation Values of the Preserve.

(m) Commercial or industrial uses of the Preserve.

(n) The dumping or accumulation of trash, ashes, garbage, inoperative vehicles, waste or other debris on the Property including, without limitation Hazardous Materials. For the purposes of this instrument, "Hazardous Materials" shall mean any substance defined,

listed, or otherwise classified pursuant to any federal, state, or local law, regulations, or requirements as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment. Notwithstanding, said restrictions shall not prohibit the accumulation of trash, ashes, garbage, inoperative vehicles, waste or other debris on the Property including, without limitation Hazardous Materials, in the ordinary and customary use of the Homesite Reserve Area and in accordance with all applicable local, state or Federal rules and regulations, provided that any such activities do not impair the Conservation Values of the Preserve.

(o) Any motorized vehicle use off designated roadways identified in the Baseline Documentation, except for: the purposes of the ranching, maintenance or stewardship of the Property as allowed in the Management Plan; as required to comply with local, state or federal law; for public health and safety; or within the Homesite Reserve Area.

4. **Reserved Rights of Grantors.** Grantors reserve to themselves, their representatives, and assigns, all rights accruing from their ownership of the Property, including the right to engage in, or permit or invite others to engage in, all lawful uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Easement. Without limiting the generality of the foregoing, the following activities and uses are specifically reserved:

(a) The right to construct one single-family residence within Homesite Reserve Area, provided the construction of this residence does not adversely affect the Conservation Values, other than the Preserve's scenic values. Grantors shall be entitled to clear vegetation, construct the single-family residence, and to enjoy and make other use of the Homesite Reserve Area as permitted by the County's Agricultural/Residential Zoning Ordinance in effect on the Property as of the date of this Easement.

(b) All right, title and interest in and to all tributary and non-tributary water and water rights in, on, under, or appurtenant to the Property, provided that such water rights are used on the Property in a manner consistent with the purpose and terms of this Easement, and provided that any and all water rights necessary to maintain or restore the Conservation Values are retained and used to maintain or restore the Conservation Values according to the Management Plan.

(c) All rights for the management and improvement of the Property that are specifically allowed by the Management Plan and that are not otherwise prohibited by this Easement and the Management Plan.

5. **Notice and Approval.**

5.1 **Notice of Intention to Undertake Certain Permitted Actions.** Grantors shall notify Grantee prior to undertaking certain activities as permitted and limited in Sections 1, 3, and 4 of this Easement, in order to afford Grantee an adequate opportunity to participate in evaluating the compatibility of certain activities with the Easement conditions and to recommend either mitigation measures or that the activity not occur. The purpose of this notice is to prevent Easement violations through a cooperative approach.

5.2 **Grantee's Approval.** Where Grantee's approval is required, as set forth in this Easement and the Attachments, Grantee shall grant or withhold its approval in writing within five (5) business days of receipt of Grantors' request. Grantee's approval may be withheld only upon a reasonable determination by Grantee that the action as proposed would be inconsistent with the purpose of this Easement and the protection of the Conservation Values.

5.3 **Mediation.** If a dispute arises between the Parties concerning use or activities on the Property, or the failure of a Party to consent either in a timely manner or consent at all to the request of the another Party, either party may refer the dispute to mediation by request made in writing to the other, and the Parties agree not to proceed with the use or activity pending resolution of the dispute. Within ten (10) days of the receipt of such a request, the Parties shall select a single trained and impartial mediator. If the Parties are unable to agree on the selection of a single mediator, then the Parties shall, within fifteen (15) days of receipt of the initial request, jointly apply to a proper court for the appointment of a trained and impartial mediator. Mediation shall then proceed in accordance with the following guidelines:

(a) Purpose. The purpose of the mediation is to: (i) promote discussion between the Parties; (ii) assist the Parties to develop and exchange pertinent information concerning the issues in dispute; and (iii) assist the Parties to develop proposals which will enable them to arrive at a mutually acceptable resolution of the controversy. The mediation is not intended to result in any express or *de facto* modification or amendment of the terms, conditions, or restrictions of this Easement.

(b) Participation. The mediator may meet with the Parties and their counsel jointly or *ex parte*. The Parties agree that they will participate in the mediation process in good faith and expeditiously, attending all sessions scheduled by the mediator. Representatives of the Parties with settlement authority will attend mediation sessions as requested by the mediator.

(c) Confidentiality. All information presented to the mediator shall be deemed confidential and shall be disclosed by the mediator only with the consent of the Parties or their respective counsel. The mediator shall not be subject to subpoena by any party. No statements made or documents prepared for mediation sessions shall be disclosed in any subsequent proceeding or construed as an admission of a party.

(d) Time Period. Neither party shall be obligated to continue the mediation process beyond a period of ninety (90) days from the date of receipt of the initial request or if the mediator concludes that there is no reasonable likelihood that continuing mediation will result in a mutually agreeable resolution of the dispute.

(e) Costs. The costs of the mediator shall be borne equally by Grantors and Grantee; the Parties shall bear their own expenses, including attorneys' fees, individually, except that the costs incurred by either party for purposes of correcting a default or breach of this Easement on the part of the other party shall be borne by the losing party.

(f) If any party commences a court action based on a dispute of claim to which this provision applies without first attempting to resolve the matter through mediation, then in the discretion of the judge, that party shall not be entitled to recover attorney's fees, even if they would otherwise be available in any such court action.

6. **Grantee's Remedies.**

6.1 **Notice of Violation; Corrective Action.** If Grantee determines that a violation of the terms of this Easement has occurred or is threatened, Grantee shall give written notice to Grantors of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purpose of this Easement, to restore the portion of the Property so injured to its prior condition in accordance with a plan approved by Grantee.

6.2 **Injunctive Relief.** If Grantors fail to cure the violation within thirty (30) days after receipt of notice thereof from Grantee, or under circumstances where the violation cannot reasonably be cured within a thirty (30) day period, fail to begin curing such violation within the thirty (30) day period, or fail to continue diligently to cure such violation until finally cured, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Easement, to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction, and to require the restoration of the Preserve to the condition that existed prior to any such injury.

6.3 **Damages.** Grantee shall be entitled to recover damages from the Grantors for actions by the Grantors in violation of the terms of this Easement or causing injury to any Conservation Values protected by this Easement, including, without limitation, damages for the loss of scenic, aesthetic, or environmental values. Without limiting Grantors' liability therefor, Grantee, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the Preserve.

6.4 **Emergency Enforcement.** If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee may pursue its remedies under this Section 6 without prior notice to Grantors or without waiting for the period provided for cure to expire.

6.5 **Scope of Relief.** Grantee's rights under this Section 6 apply equally in the event of either actual or threatened violations of the terms of this Easement. Grantors agree that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in paragraph 6.2, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this Section 6 shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity.

6.6 **Costs of Enforcement.** All reasonable costs incurred by Grantee in enforcing the terms of

this Easement against Grantors, including, without limitation, costs and expenses of suit and reasonable attorneys' fees, and any costs of restoration necessitated by Grantors' violation of the terms of this Easement shall be borne by Grantors.

6.7 **Forbearance.** Forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantors shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantors shall impair such right or remedy or be construed as a waiver.

6.8 **Acts Beyond Grantors' Control.** Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantors for any injury to or change in the Property resulting from natural environmental causes beyond Grantors' control, including, without limitation, fire, flood, storm, and earth movement caused by earthquake, or from any prudent action taken by Grantors under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes.

6.9 **Third Party Liability.** Grantee has the right to pursue damages from third parties, but not to the exclusion of any right of the Grantors to seek damages or relief from any third party for damage to the Property.

7. **Costs, Liabilities, Taxes, and Environmental Compliance.**

7.1 **Costs, Legal Requirements, and Liabilities.** Grantors retain all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of adequate liability insurance coverage. Grantee shall be named as additional insured, and be provided a certificate of insurance from the Grantors if requested. Grantors remain solely responsible for obtaining any applicable governmental permits and approvals for any construction or other activity or use permitted by this Easement, and all such construction or other activity or use shall be undertaken in accordance with all applicable federal, state, and local laws, regulations, and requirements. Grantors shall keep the Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by Grantors, and any future liens shall be subordinate to this Easement and to the executory interest of the State of California.

7.2 **Taxes.** Grantors shall pay before delinquency all applicable federal, state and local taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes imposed upon, or incurred as a result of, this Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantee has the right to monitor the status of Grantors' payment of property taxes on an annual basis.

7.3 **Remediation.** If there occurs a release in, on, or about the Property of any substance which causes damage to the values protected by this Easement, Grantors agree to take all steps

necessary to assure its containment and remediation, including any cleanup and restoration that may be required, unless the release was caused by either of the following:

(a) Grantee, its officers, employees, agents, contractors, invitees or licensees, in which case Grantee shall be responsible for those costs, or

(b) The general public through no fault of Grantors.

7.4 **Control.** Nothing in this Easement shall be construed as giving rise, in the absence of a judicial decree, to any right or ability in Grantee to exercise physical or managerial control over the day-to-day operations of the Property, or any of Grantors' activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), and corresponding state statute.

7.5 **Hold Harmless.** Grantors hereby release and agree to hold harmless, indemnify, and defend Grantee and its members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively "Indemnified Parties") from and against any and all liabilities, penalties, fines, charges, costs, losses, damages, expenses, causes of action, claims, demands, orders, judgments, or administrative actions, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with: (1) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, unless due to the negligence of any of the Indemnified Parties; (2) the violation or alleged violation of, or other failure to comply with, any state, federal, or local law, regulation, or requirement, including, without limitation, CERCLA and corresponding state statute by any person other than any of the Indemnified Parties, in any way affecting, involving, or relating to the Property; and (3) the presence or release in, on, from, or about the Property, at any time, of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment, unless caused by any of the Indemnified Parties.

## 8. Extinguishment, Valuation, and Condemnation.

8.1 **Extinguishment.** Grantors and Grantee, and their successors, may not voluntarily extinguish the Easement, in whole or in part. Conservation easements can only be extinguished in whole or in part through appropriate legal proceedings in a court of competent jurisdiction. If circumstances arise in the future that render the purpose of this Easement impossible to accomplish, this Easement can only be terminated or extinguished, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction. The amount of the proceeds to which Grantee shall be entitled, after the satisfaction of prior claims, from any sale, exchange, or involuntary conversion of all or any portion of the Property subsequent to such termination or extinguishment, shall be the stipulated fair market value of the Easement, or proportionate part thereof, as determined in accordance with paragraph 8.2.

8.2 **Valuation.** This Easement constitutes a real property interest immediately vested in Grantee, which the Parties stipulate to have a fair market value determined by the standard practice of determining the appraised value of the Property with and without the Easement at the time of appraisal. This valuation is to be completed if the Easement is terminated or extinguished pursuant to paragraph 8.3. This valuation shall follow accepted Internal Revenue Service and appraisal standards, with the value of the Easement being the difference between the value of the Property at its highest and best use according to economic value, and the value of the Property with this Easement in effect.

8.3 **Condemnation.** If all or any part of the Preserve is acquired by exercise of the power of eminent domain or by purchase in lieu of a related condemnation proceeding, whether by public, corporate, or other authority, so as to terminate this Easement, in whole or in part, the Parties and the State of California shall act jointly to recover the full value of the interests in the Preserve subject to the taking or in lieu purchase and all direct or incidental damages resulting therefrom.

8.4 **Application of Proceeds.** All expenses reasonably incurred by Grantors and Grantee in connection with the taking or in lieu purchase as described in paragraph 8.3 shall first be reimbursed out of the amount recovered. Then, the Grantee's share of the amount recovered after expenses shall be equal to the fair market value of the Easement as valued in paragraph 8.2, or the entire amount recovered, whichever is the lesser amount. Then, the Grantors' share of the amount recovered shall be equal to the fair market value of the Property minus the Easement as valued in paragraph 8.2, or the remaining amount recovered, whichever is the lesser amount. Finally, any remaining amount shall be paid to Grantee and Grantors in proportion to the amount that the fair market value of their interest bears to the fair market value of the total Property including the Easement. Grantee shall direct a portion of any non-reimbursed proceeds received to the State of California and other organizations that contributed funds for the acquisition of the Easement, based on a percentage equal to their contribution to the purchase of the Easement.

9. **Assignment and Executory Limitation.**

9.1 **Assignment.** This Easement may be assigned, sold, transferred, exchanged or otherwise conveyed by Grantee only to an organization that is a qualified organization at the time of transfer under Section 170(h) of the Internal Revenue Code (or any successor provision then applicable), and authorized to acquire and hold conservation easements under California Civil Code, Sections 815 and 816 (or any successor provision then applicable) or the laws of the United States. Such qualified organization must be willing and financially able to assume all of the obligations and responsibilities of Grantee. As a condition of such transfer, the successor Grantee shall require that the conservation purpose that this grant is intended to advance continue to be carried out, including the executory interest and right of entry on the part of the State of California. To the extent possible under the circumstances of the transfer, Grantee will give Grantors at least sixty (60) days written notice prior to the date of transfer. The failure of Grantee to give such notice shall not affect the validity of such assignment nor shall it impair the validity of this Easement or limit its enforceability

in any way. Grantors shall approve any assignment of this Easement, which shall not unreasonably withhold consent. Furthermore, the State of California acting through the Resources Agency and Wildlife Conservation Board shall approve any assignment of this Easement, which shall not be unreasonably withheld so long as the Easement's purpose is upheld. If Grantee fails to perform its duties under this Easement through a default of one or more grant agreements with the State of California, the State of California, acting through the Resources Agency and Wildlife Conservation Board, may require Grantee to convey its interest in the Easement to the State of California or another entity or organization authorized by California law to acquire and hold conservation easements and which is willing and financially able to assume all of the obligations and responsibilities of the Grantee.

9.2 **Executory Limitation.** If Grantee shall cease to exist for any reason, cease to be a qualified organization under Section 170(h) of the Internal Revenue Code, or cease to be authorized to acquire and hold conservation easements under Section 815.3(a) of the California Civil Code, then title to this Easement will immediately vest in the State of California. However, prior to that termination, upon approval of the Parties and the State of California, the Easement may be assigned according to paragraph 9.1.

10. **Subsequent Transfers.** Grantors agree to incorporate the terms of this Easement by reference in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantors further agree to give written notice to Grantee of the transfer of any interest at least twenty (20) days prior to the date of such transfer. The failure of Grantors to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

11. **Estoppel Certificates.** Upon request by Grantors, Grantee shall within twenty (20) days execute and deliver to Grantors, or to any party designated by Grantors, any document, including an estoppel certificate, which certifies, to the best of Grantee's knowledge, Grantors' compliance with any obligation of Grantors contained in this Easement or otherwise evidences the status of this Easement. Such certification shall be limited to the condition of the Property as of Grantee's most recent inspection. If Grantors request more current documentation, Grantee shall conduct an inspection, at Grantors' expense, within thirty (30) days of receipt of Grantors' written request therefor.

12. **Notices.** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

| | |
|---|---|
| To Grantors: | Freedom Trust<br>Attn: H. Robert Freiheit & Denise Ann Freiheit<br>P.O. Box 2332<br>Roseville, CA 95746-2332 |
| To Grantee: | Placer Land Trust |

Attn: Executive Director
11521 Blocker Drive, Suite 100
Auburn, CA 95603

To State of California:

Resources Agency
Attn: Bonds & Grants Unit
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Wildlife Conservation Board
Attn: Executive Director
1807 13th Street, Suite 103
Sacramento, CA 95814

It shall be the respective duty and responsibility of the Grantors and/or Grantee, or their/its heirs, assigns, representatives or successors to notify the other party of any and all change of address to which legal notice is to be directed, in writing, by certified U.S. Mail, or other such equivalent mail delivery, within thirty (30) days of such change.

13. **Recordation.** Grantee shall record this instrument in timely fashion in the official records of Placer County, California, and may re-record it at any time as may be required to preserve its rights in this Easement.

14. **General Provisions.**

14.1 **Controlling Law.** The interpretation and performance of this Easement shall be governed by the laws of the State of California.

14.2 **Liberal Construction.** This Easement shall be liberally construed in favor of the grant to effect the purpose of this Easement and the policy and purpose of California State Civil Code, Sections 815 and 816. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

14.3 **Severability.** If any provision of this Easement, or the application thereof to any person/entity or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

14.4 **Entire Agreement.** This instrument (including all Attachments) sets forth the entire agreement of the Parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

14.5 **Amendment.** The Parties recognize that circumstances could arise which justify amendment of certain of the terms, covenants, or restrictions contained in this Easement,

and that some activities may require the discretionary consent of Grantee. To this end, the Parties have the right to agree to amendments and discretionary consents to this Easement with the written consent of both Parties and the State of California acting through the Resources Agency and the Wildlife Conservation Board. The State of California's approval of any amendment shall not be unreasonably withheld. The Parties and the State of California anticipate and agree that this Easement shall be amended if and when the Homestic Reserve Area is delineated; this particular amendment does not require approval of the State of California. Notwithstanding the foregoing, the Parties have no right or power to consent to any action or agree to any amendment that would: increase the level of residential development permitted by the terms of this Easement; limit the term or result in termination of this Easement; diminish or adversely affect the Conservation Values; conflict with the purpose of this Easement; or adversely affect the qualification of this Easement or the status of Grantee under applicable laws, including the Internal Revenue Code. Amendments will become effective upon recording at the Placer County Recorder's Office.

14.6 **Security.** This Easement may not be used as security for any debt without the written approval of the State of California, acting through the Resources Agency and the Wildlife Conservation Board.

14.7 **No Forfeiture.** Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.

14.8 **Joint Obligation.** The obligations imposed by this Easement upon Grantors shall be joint and several.

14.9 **Successors.** The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the Parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The terms "Grantors" and "Grantee," wherever used herein, and any pronouns used in place thereof, shall include, respectively, the above-named Grantors and their personal representatives, heirs, successors, and assigns, and the above-named Grantee and its successors and assigns.

14.10 **Termination of Rights and Obligations.** A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

14.11 **Captions.** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

14.12 **Counterparts.** The Parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both Parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

**TO HAVE AND TO HOLD** unto Grantee, its successors, and assigns forever.

**IN WITNESS WHEREOF** Grantors and Grantee have set their hands on the day and year first above written.

**Grantors:**

H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994
P.O. Box 2332
Roseville, CA 95746-2332

H. Robert Freiheit, Trustee

H. Robert Freiheit
Trustee

Denise Ann Freiheit, Trustee

Denise Ann Freiheit
Trustee

**Grantee:**

Placer Land Trust
11521 Blocker Drive, Suite 100
Auburn, CA 95603

Fred Yeager

Fred Yeager
President

Patricia Callan-McKinney

Patricia Callan-McKinney
Treasurer

**SCHEDULE OF ATTACHMENTS**

A. Legal Description of Property
B. Description of Preserve
C. Description of Homesite Reserve Area
D. Baseline Documentation Report for Liberty Ranch Big Hill Preserve
E. Management Plan for Liberty Ranch Big Hill Preserve

## Attachment A

## Legal Description of Property

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**PARCEL ONE:**

**THE EAST HALF OF SECTION 11, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.&M.**

**EXCEPTING THEREFROM ALL THAT PORTION LYING WITHIN THE EXTERIOR BOUNDARIES OF PARCEL MAP NO. 72107 FILED FOR RECORD MARCH 21, 1997, IN BOOK 9 OF PARCEL MAPS, AT PAGE 152.**

**APN: 026-061-013-510 AND 026-061-013-520**

**PARCEL TWO:**

**A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH, FOR INGRESS AND EGRESS AS DISCLOSED IN GRANT DEED RECORDED MARCH 24, 1995, INSTRUMENT NO. 95-014536 RECORDS OF PLACER COUNTY.**

## Attachment B

## Description of Preserve

The Preserve consists of the balance of the Property minus the Homesite Reserve Area as described in Attachment C. Until such time as the Homesite Reserve Area is delineated and this Easement amended to reflect that delineation, the entirety of the Property shall be considered part of the Preserve.

## Attachment C

## Description of Homesite Reserve Area

The Homesite Reserve Area ("HRA") shall consist of no more than eight (8) acres of the Property to be designed by Grantors, or its successors. The Homesite Reserve Area may be comprised of up to three (3) distinct areas connected by twenty (20) foot wide roadways, with each distinct area having a minimum size of one (1) acre, and with the connecting roadways (to the extent not overlaying existing farm roads as identified in the Baseline Documentation Report) part of the 8-acre Homesite Reserve Area, all within the allowable "HRA Zone" as described below.

The entire 8 acres of the HRA shall be within a larger HRA Zone. The HRA Zone shall be an area of the southwest corner of the Property within a semi-circular area defined as follows:

- Within eight hundred (800) feet from the point on the Property line that is three hundred (300) feet north of where the Property line intersects with the northeastern side of New Hope School Road.

For a general visual description of HRA Zone, see the map on the following page. Note that the map is only a visual approximation of the HRA Zone; in the case of any inconsistency between the map and the above definition of the HRA Zone, the above definition shall prevail.

When the HRA location is determined by the Grantors, Grantors or its successor shall prepare and record a map and written description that delineates the final HRA for Grantee approval, which shall not be unreasonably withheld. Grantee shall execute any and all documents reasonably necessary for the recordation of said map and written description.

When the HRA is delineated, Grantors and Grantee shall jointly amend this Easement (including this page and the map on the following page) according to the procedure described in paragraph 14.5 of the Easement, and re-record the Easement with the Placer County Recorder's Office. The Grantee shall then provide copies of the amended and re-recorded Easement to the State of California (Wildlife Conservation Board and Resources Agency).

Until such time as the HRA has been delineated and the Easement amended and recorded to reflect the HRA delineation, the Parties agree that the HRA Zone shall be considered part of the Preserve, subject to the terms and conditions of this Easement.

## Attachment D

## Baseline Documentation Report for Liberty Ranch Big Hill Preserve

The *Baseline Documentation Report for Liberty Ranch Big Hill Preserve*, dated July 27, 2007, is enclosed on the following pages.

## Attachment E

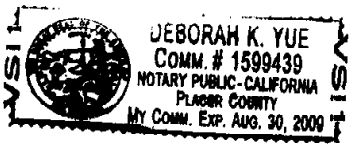
## Management Plan for Liberty Ranch Big Hill Preserve

The *Management Plan for Liberty Ranch Big Hill Preserve*, dated July 27, 2007, is enclosed on the following pages.

State of California )
) ss.
County of Placer )

On September 14, 2007, before me, Deborah K. Yue Notary Public, personally appeared Fred Yeager, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.




GOVERNMENT CODE 27361.7
I certify under penalty of perjury that the notary seal reads as follows:
Name of Notary Deborah K. Yue
Date Commission Expires 8-30-09 Commission # 1599439
County of Commission Placer Mfg. ID. # VE511
State of Commission California
Signature
(Firm name, if any) Placer Title Co.
9-19-07, Auburn, Ca

State of California )
) ss.
County of Placer )

On September 14, 2007, before me, Deborah K. Yue, Notary Public, personally appeared Patricia Callan-McKinney, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

State of California )
) ss.
County of Placer )

On September 18, 2007, before me, Deborah K. Yue Notary Public, personally appeared H. Robert Freiheit, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Deborah K Yue

DEBORAH K. YUE
COMM. # 1599439
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2009

State of California )
) ss.
County of Placer )

On September 18, 2007, before me, Deborah K. Yue Notary Public personally appeared Denise Ann Freiheit, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Deborah K Yue

DEBORAH K. YUE
COMM. # 1599439
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2009

# Management Plan
## for
# Liberty Ranch Big Hill Preserve

**THIS PAGE CONTAINS PICTURES AND/OR CHARTS THAT PLACER COUNTY RECORDER CANNOT SCAN.**

**THIS ORIGINAL PAGE CAN BE VIEWED AT THE OFFICE OF**

**PLACER LAND TRUST**
**11521 BLOCKER DRIVE, SUITE 100**
**AUBURN, CA 95603**

| | |
|---|---|
| Date: | July 27, 2007 |
| Prepared For: | Placer Land Trust (Easement Holder) & H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994 (Landowner) |
| Prepared By: | Placer Land Trust and consultants |

Approved and Adopted by the Placer Land Trust Board of Directors on July 26, 2007.

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# 1.0 INTRODUCTION

## 1.1 Definitions

Important terms in this document are defined as follows.

Baseline Documentation Report
The *Baseline Documentation Report for Liberty Ranch Big Hill Preserve*, dated July 27, 2007. This document – signed by the Landowner and the Easement Holder prior to or simultaneous with the recordation of the Conservation Easement – describes the relevant conditions of the Property, and specifically the Preserve. The document defines the Conservation Values on the Preserve that are to be permanently protected by the Conservation Easement, and is used by the Easement Holder to monitor and enforce the terms and conditions of the Easement. In part, the Baseline Documentation Report sets forth important descriptions and delineations, such as existing roadways, that inform the scope of activities allowed on the Preserve. The Baseline Documentation Report consists of text, maps and photographs. Attached as Exhibit I.

Conservation Easement
The *Deed of Conservation Easement*, expected to be recorded on the Property on or around September 15, 2007, or as it may be amended, granted to the Easement Holder by the Landowner for valuable consideration. The Conservation Easement is a perpetual legal agreement between the Landowner and the Easement Holder (and their successors) that is permanently attached to the deed of the Property, setting forth terms, conditions, restrictions and prohibitions that permanently protect the Preserve and its Conservation Values for public benefit. The Conservation Easement includes by incorporation the Baseline Documentation Report and the Management Plan.

Conservation Values
The conservation values are the important natural attributes and values (both present and future) on the Preserve that are identified during the project evaluation and planning process. Both the Landowner and the Easement Holder have agreed to permanently protect via the Conservation Easement. The Conservation Values are defined in the Baseline Documentation Report.

Easement Holder
The Easement Holder is a qualified owner of the Conservation Easement and the entity responsible for enforcing the terms of the Conservation Easement and the Management Plan to ensure the permanent protection of the Preserve and its Conservation Values. The current Easement Holder is Placer Land Trust (PLT).

Funders
The funding entities provided funding to Placer Land Trust to acquire the Conservation Easement and/or manage the Conservation Easement in perpetuity. These include the California Wildlife Foundation, the Sierra Nevada Cascade Conservation Grant Program, the Wildlife Conservation Board, and the County of Placer.

Homesite Reserve Area
An as-yet to be determined area of the Property of no more than eight (8) acres that is exempt from many terms and conditions of the Conservation Easement and the Management Plan in order to allow limited future Homesite development. A map showing the area in which the Homesite Reserve Area may be located is attached as Exhibit D. The Homesite Reserve Area may be comprised of up to three (3) distinct areas connected by twenty (20) foot wide roadways, with each distinct area having a minimum size of one (1) acre, and with the connecting roadways (to the extent not overlaying existing farm roads as identified in the Baseline Documentation Report) part of the 8-acre Homesite Reserve Area, all within the allowable "HRA Zone" as mapped in Exhibit D.

Homesite Reserve Area Zone (HRA Zone)
A semi-circular area within 800 feet of the point on the western Property boundary line that is 300 feet north of the intersection of the western Property boundary line and New Hope School Road, as described and mapped in Exhibit D, in which the Homesite Reserve Area may be located in the future.

Landowner
The current Landowner is H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994. The current Trustees of the Freedom Trust, a family trust, are H. Robert Freiheit and Denise Ann Freiheit.

Management Plan
(This document.) The *Management Plan for Liberty Ranch Big Hill Preserve*, dated July 27, 2007, or as it may be amended. This document defines the goals of the project, roles and responsibilities of each party, legal and financial arrangements, and acknowledges each stakeholder's role in the project to permanently protect the Conservation Values of the Preserve. See Section 2.0 for a further description of the Management Plan objectives.

Placer Legacy
The Placer Legacy Open Space & Agricultural Conservation Program is the Placer County governments land conservation program and is administered by its Planning Department.

Preserve
The entirety of the Property except for the Homesite Reserve Area (a maximum of eight acres, as it may be delineated in the future), that contains the Conservation Values is permanently protected by the terms and conditions of Conservation Easement and the Management Plan. The description of the Preserve is attached as Exhibit C.

Property
The land owned by the Landowner, in this case 321 acres, consisting of both the Preserve and the Homesite Reserve Area. The Property is identified by Placer County Assessor's Parcel Number 026-061-013 and is situated on portions of Big Hill Road and New Hope School Road, northwest of Auburn in the unincorporated area of Placer County. The legal description of the Property is attached as Exhibit A.

State of California
As narrowly defined in this document, the agencies, programs, and representatives of the State of California Resources Agency acting through the Sierra Nevada Cascade Conservation Grant Program and the Wildlife Conservation Board to administer grant funds used to complete this project.

Stewardship
As narrowly defined in this document, land stewardship includes the ongoing and perpetual management, monitoring and enforcement of the terms of the Conservation Easement and the Management Plan.

## 1.2 Acronyms

Acronyms used in this document are defined as follows.

| | |
|---|---|
| CDFG | California Department of Fish & Game |
| CWF | California Wildlife Foundation |
| DBH | Diameter at Breast Height |
| HRA | Homesite Reserve Area |
| IOD | Irrevocable Offer of Dedication |
| PLT | Placer Land Trust |
| SNCC | Sierra Nevada Cascade Conservation Grant Program |
| WCB | Wildlife Conservation Board |

## 1.3 Executive Summary

H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994 (Landowner) own the Property. The Property contains the Preserve – consisting of relatively pristine and unfragmented oak woodlands in the Coon Creek and Bear River watersheds of Placer County – and may also include an 8-acre Homesite Reserve Area as outlined in Exhibit D.

In order to permanently protect the Preserve and its Conservation Values, the Freedom Trust is selling a perpetual Conservation Easement to Placer Land Trust (PLT). Placer Land Trust is a 501(c)(3) California private nonprofit public benefit corporation dedicated to working with willing landowners and conservation partners to permanently preserve natural and agricultural lands in Placer County for future generations. For more details about the history and development of this project, see Section III of the Baseline Documentation Report.

PLT expects to record the Conservation Easement on the deed of the Property at the Placer County Recorder's Office on or around September 15, 2007. The Conservation Easement is a legal agreement between the Landowner and the Easement Holder that is binding upon the parties and their successors through its encumbrance of the deed of the Property in perpetuity, protecting forever the Preserve and its Conservation Values.

This Management Plan is an agreement between the Landowner and the Easement Holder that is incorporated into the Conservation Easement, and sets forth the terms and conditions for the ongoing and perpetual management of the Preserve and its Conservation Values.

## 2.0 PLAN OBJECTIVES

### 2.1 Project Purpose

The primary goals in acquiring the Conservation Easement are the protection of scenic open space, important Bear River and Coon Creek watershed lands, Sierra Nevada foothill oak woodlands, and wildlife habitat on the Property. The following language, taken from the Conservation Easement, is included to articulate the purposes of the Liberty Ranch conservation project:

> *It is the purpose of this Easement to assure that the Preserve will be retained forever in its natural, open space, and scenic condition, and to protect forever the Conservation Values of the Preserve as specified in the Baseline Documentation Report. Further, it is the purpose of this Easement to prevent any use or development of the Property that will significantly damage or impair the Preserve or its Conservation Values, with the exception of development in the Homesite Reserve Area as allowed and limited by this Easement and the incorporated Management Plan. Grantor and Grantee intend that this Easement will confine the use of the Property only to such activities that are consistent with the purpose and terms of this Easement and the incorporated Management Plan.*

### 2.2 Management Plan Development

This Management Plan was developed prior to the recordation of the Conservation Easement by PLT staff (including Executive Director Jeff Darlington and Stewardship Coordinator Joselin Matkins) with input from the Landowner, Funders, legal counsel, and independent consultants Mehrey Vaghti and Brian Williams. For a list of the qualifications of PLT staff and independent consultants, see the Baseline Documentation Report.

### 2.3 Management Plan Objectives

This Management Plan is an agreement between the Freedom Trust and PLT that sets forth roles and obligations for the permanent protection of the Preserve. As with the Conservation Easement, the terms and conditions of the Management Plan are binding on all successors in perpetuity.

Note: This Management Plan does not specify or govern management activities on the Homesite Reserve Area, once it is delineated, with the exception of uses or activities in the Homesite Reserve Area that negatively impact the Conservation Values (other than scenic values) of the Preserve.

### 2.3.1 Purpose

The purpose of this Management Plan is to specify management practices and allowable uses for the Preserve in conjunction with the Conservation Easement, using an adaptive management approach.

### 2.3.2 Primary Goals

The primary goals in the implementation of this Management Plan are the permanent protection of the following physical attributes of the Preserve.

- important Bear River and Coon Creek watershed lands
- Sierra Nevada foothill oak woodlands
- wildlife habitat
- scenic open space

### 2.3.3 Secondary Goal

The secondary goal of this Management Plan is to affirm the process for creation of a:

- public, non-motorized recreational trail on the Preserve

### 2.3.4 Ancillary Goals

Other goals that may be achieved in the future, with the consent of both parties and with additional funding if required, include:

- protection of a portion of a critical wildlife and open space corridor running north-south between the Bear River and Coon Creek
- restoration and improvement of habitat
- additional compatible public use of the Property, including potential trail linkages to other permanently preserved lands and/or public lands

## 3.0 CURRENT CONDITIONS

The current conditions of the Property, including the Homesite Reserve Area and the Preserve, and including the Conservation Values of the Preserve, are described in the Baseline Documentation Report (Exhibit I). The information in this Section 3 is a summary only.

### 3.1 Property

The Property includes the Homesite Reserve Area and the Preserve area.

### 3.2 Homesite Reserve Area and Homesite Reserve Area Zone

The Landowner has reserved the right to develop an 8-acre portion of the Property as the Homesite Reserve Area, which shall be located within the Homesite Reserve Area Zone (HRA Zone) as defined and mapped in the attached Exhibit D. Limited future residential development is allowed in the Homesite Reserve Area. The Homesite Reserve Area is further described in Exhibit D. The HRA Zone is largely undeveloped except for road grading and clearing, a domestic well, the private unpaved New Hope School Road, and fencing. At the date of recordation of the Conservation Easement, the HRA Zone has been described and mapped (see Exhibit D), but the Homesite Reserve Area has not yet been delineated, described, or mapped.

### 3.3 Preserve

The Preserve is largely undeveloped and is situated in one of the largest unfragmented areas of oak woodlands in Placer County. The private paved Big Hill Road crosses the northern portion of the Preserve, and the private unpaved New Hope School Road crosses the southwestern corner of the Preserve. The Preserve also contains a system of graded and ungraded roads. The current conditions of the Preserve are described in the Baseline Documentation Report (Exhibit I), and the Preserve is described in Description of Preserve (Exhibit C). Exhibits E through H also further describe the current conditions of the Preserve.

### 3.4 Conservation Values

The Conservation Values of the Preserve are contained in the Baseline Documentation Report (Exhibit I). In summary, the Conservation Values include:

- natural habitat values
- open space and scenic values
- recreational values

## 4.0 METHOD OF PROTECTION

### 4.1 Preserve Ownership

The Preserve is owned by H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994 (Landowner). The Landowner has agreed to be bound by the terms of the Conservation Easement and the Management Plan.

### 4.2 Conservation Easement

The Preserve shall be protected in perpetuity by a Conservation Easement, a legally binding agreement which includes and incorporates this Management Plan and encumbers the deed of the Property. The Conservation Easement will be purchased from the Freedom Trust by PLT using grant funds from public and private sources, based upon an agreed-upon fair market value as determined by a qualified appraisal.

#### 4.2.1 Easement Holder

PLT shall own and hold the Conservation Easement. As the Easement Holder, PLT is bound by the terms of the Conservation Easement and the Management Plan. PLT is a publicly supported, tax-exempt nonprofit public benefit organization under Section 501(c)(3) and is qualified to acquire and hold conservation easements for public benefit under Section 170(h), respectively, of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder. PLT is also qualified to acquire and hold conservation easements in California under Sections 815 and 816 of the California Civil Code. The Conservation Easement and this Management Plan are consistent with Placer Land Trust's mission to work with willing landowners to permanently preserve natural and agricultural lands in the Placer County region.

#### 4.2.2 Supremacy of Conservation Easement

This Management Plan is incorporated in and consistent with the Conservation Easement on the Preserve held by PLT. All management activities on and uses of the Preserve must comply with the terms of the Conservation Easement, and in the case of any inconsistency, the Conservation Easement supersedes this Management Plan. Any other agreements or encumbrances on the Property must be subordinate to the Conservation Easement.

### 4.3 Successors

The Conservation Easement and this Management Plan are legally binding, in perpetuity, for current and future Landowners and Easement Holders, including heirs and successors.

### 4.4 Funding Mechanism

PLT obtained funding for the acquisition, stewardship, and defense of the Conservation Easement from several funders, listed below.

### 4.4.1 Acquisition Funding

Funders for this project included:

- California Wildlife Foundation (CWF), a private nonprofit organization that collaborates with partner organizations to protect the state's rich diversity of wildlife species by acquiring, restoring, and managing sufficient habitat to sustain healthy populations over time.

- Sierra Nevada Cascade Conservation Grant Program (SNCC), a division of the State of California Resources Agency that provides funding for acquisitions to protect water quality in lakes, reservoirs, rivers, streams and wetlands in the Sierra Nevada-Cascade Mountain Region.

- Wildlife Conservation Board (WCB), a division of the State of California Resources Agency that administers a capital outlay program for wildlife conservation and related public recreation in California.

- County of Placer, a division of the State of California, through the County's "Placer Legacy Open Space and Agricultural Conservation Program", a program to protect important lands in Placer County for public benefit.

### 4.4.2 Stewardship Fund

A contribution to PLT's Stewardship Fund has been made by CWF for the ongoing and perpetual management of the Conservation Easement to cover PLT's obligations relative to the Conservation Easement and the Management Plan (such as easement monitoring and implementation of this Management Plan). Other potential future contributions from public agencies, private foundations and individuals (including the Landowner) may also be used for this purpose. These funds will be invested in an interest-bearing account to generate annual interest sufficient to cover annual stewardship expenses. Annual stewardship expenses for the Easement are estimated at $10,000; using a conservative yield of four percent, an endowment of approximately $250,000 should therefore be created to generate approximately $10,000 in annual interest income. PLT may accomplish stewardship tasks using these funds through the work of salaried staff, volunteers, and paid consultants.

### 4.4.3 Legal Defense Fund

A contribution to PLT's Legal Defense Fund has been made by CWF. These funds will contribute to potential future costs needed to defend the Conservation Easement and protect the Preserve and its Conservation Values. The Landowner and other funders may contribute funding to PLT's Legal Defense Fund.

## 5.0 PLAN IMPLEMENTATION

### 5.1 Landowner Responsibilities

The Landowner is responsible for all obligations resulting from and consistent with ownership of the Property, and complying with all laws affecting the Property. All rights and obligations not expressly conveyed to the Easement Holder in the Conservation Easement or in this Management Plan, as they may be amended, are held by the Landowner. Notably, Landowner responsibilities include, but are not limited to, the following listed in the remainder of this Section 5.1 below.

#### 5.1.1 Habitat Management

The Landowner is responsible for certain habitat management duties as described in Section 7.0 of this Management Plan. The Landowner's habitat management duties are primarily duties to refrain from activities harmful to the Conservation Values of the Preserve (rather than "proactive" duties). For example, the Landowner has a duty to refrain from activities that promote the spread of non-native exotic weeds; however, the Landowner does not have a duty to actively re-introduce or propagate native plants.

#### 5.1.2 Property Management

The Landowner is responsible for property management as described in Section 9.0 of this Management Plan. Notably, property management includes maintenance of infrastructure and fuel load reduction.

#### 5.1.3 Property Taxes

The Landowner is responsible for paying all property taxes due on the Property. The Landowner must provide annual proof of property tax payment to Easement Holder, if requested.

#### 5.1.4 Title Protection

The Landowner is responsible for maintaining title insurance on the Property, and keeping title of the Property free from liens, loans, and encumbrances that are inconsistent with the terms of the Conservation Easement and this Management Plan.

### 5.2 Easement Holder Responsibilities

The Easement Holder is responsible for enforcing the terms of the Conservation Easement and this Management Plan, and protecting the Conservation Values of the Preserve. The Easement Holder's specific responsibilities are expressly defined by the Conservation Easement and this Management Plan. Easement Holder responsibilities relative to this Management Plan are found in the remainder of this Section 5.2 below.

### 5.2.1 Monitoring

The purpose of monitoring the Preserve is to ensure that the terms of the Conservation Easement and the purposes of the Easement Holder's grant agreements with the Funders are being upheld. The Easement Holder's monitoring protocol is set forth in this section 5.2.1. Changes to the monitoring protocol are not anticipated but may be appropriate over time, given the adaptive management approach of this Plan. After obtaining the written approval of any proposed changes to the monitoring protocol from the Funders, the Easement Holder will provide written notice to the Landowner and the Funders if the monitoring protocol is changed significantly.

Regular Planned Monitoring: The Easement Holder shall regularly inspect the Preserve and monitor activities on the Preserve anywhere from one to four times per year to ensure the terms of the Conservation Easement are being upheld. The Easement Holder will also plan regular monitoring in connection with any planned change of ownership or management of the Property.

Additional Unplanned Monitoring: Additional unplanned monitoring visits, including emergency monitoring visits, are allowed if necessary at the Easement Holder's discretion. Additional monitoring visits might be required if adverse conditions are noted, if violations are found or anticipated, if there is an unplanned change of ownership or management of the Property, if activities such as trespassing begin to cause increasing problems, or if an emergency situation arises threatening the Conservation Values of the Preserve. Additional monitoring visits may focus on a particular issue or a particular geographic area and need not be comprehensive to the entire Preserve.

Notice to Landowner: The Easement Holder will provide written notice to the Landowner, with copies to the Funders, in advance of any regular planned monitoring visit. The Easement Holder will attempt to provide notice to the Landowner for any additional unplanned monitoring visit; however, the Easement Holder may proceed with the unplanned monitoring visit without notice to the Landowner if deemed necessary to prevent damage to the Conservation Values of the Preserve. The Easement Holder will provide written confirmation to the Landowner of any monitoring visit and report any significant findings in writing.

Pre-Monitoring Activities: The Easement Holder will gather the following information and materials in preparation for a monitoring visit:

- Conservation Easement
- Management Plan
- Most recent monitoring report and/or Baseline Documentation Report
- Any monitoring report, maps, photographs, documents, or correspondence relevant to the reason for the monitoring visit
- Monitoring checklist

Monitors: The personnel performing the monitoring visit will be determined by the Easement Holder. At least one of the monitoring personnel must be familiar with the

Preserve, the Easement, the Management Plan, the Baseline Documentation Report, the most recent monitoring report, and the monitoring checklist, and must be trained on Placer Land Trust's monitoring protocol. Currently, Placer Land Trust's Stewardship Coordinator is the primary monitoring personnel ("Lead Monitor"), and fully qualified. The Lead Monitor will be Placer Land Trust's current Stewardship Coordinator or another qualified individual. Lesser qualified participants, including volunteers, may assist under the supervision of the Lead Monitor.

Grant Compliance Monitoring: WCB and SNCC staff may access the Preserve not less than once every three years, preferably in the company of the Easement Holder, to monitor the Easement Holder's compliance with the terms of WCB and SNCC grant agreements.

Procedures and Methods of Monitoring: Regular monitoring visits may be accomplished by a combination of travel by vehicle on existing roads and on foot or by utility vehicle (or by non-motorized travel) when off existing roads. Monitoring will include the following activities, which will be included on a monitoring checklist that identifies specific places, items, issues and conditions to monitor:

- Inspection of the Preserve boundaries
- Inspections of portions of the Preserve interior, with a rotating geographic focus if more than one visit per year, to ensure the entire property is inspected annually
- Inspection of the Main Trail (see Section 9.5.1)
- Taking photographs and notes at designated photopoints (see Exhibit I)
- Taking photographs and notes at other locations where necessary to document activities or situations that may affect the Conservation Values of the Preserve
- Documentation of the overall state of the Preserve and any activity or situation that may affect the Conservation Values of the Preserve

Additionally, the following conditions and activities will be monitored as needed:

- Fence construction
- Significant fence maintenance
- Trail and/or trailhead construction
- Signage installation
- Significant changes in public access or recreation activity
- Any alteration of vegetation
- Activities allowed by the Conservation Easement and/or Management Plan that require Easement Holder approval

Monitoring Reports: After each monitoring visit, the Easement Holder will create a written monitoring report that includes the following information:

- Date and time of monitoring visit
- Conditions (weather, visibility, etc.)
- Identities and number of participants, with qualifications and affiliations
- Purpose of monitoring visit (e.g., regular planned monitoring visit, special inspection due to suspected violation, etc.)
- Method of monitoring (e.g., drive-by, walking visit, etc.) and route of travel

- Documentation of monitoring procedures and activities, including any information brought to the monitoring visit
- Description and summary of observations documented at photo points as identified in Exhibit I
- Description of site conditions relative to the terms, conditions, and purpose of the Easement and the Easement Holder's grant agreements, including any observable changes from the Baseline Documentation Report or the last completed monitoring report
- Any additional comments and observations, including facts relating to any possible violation(s) observed and any follow-up recommendations
- Recordation of any new plant or animal species noted

Post-Monitoring Activities: Within 30 days of the monitoring visit, the Lead Monitor will prepare a written monitoring report. A copy of the monitoring report will be sent to the Landowner and WCB, and a copy retained by the Easement Holder. Checklists, notes, photographs and other relevant items used in the monitoring visit will be stored in the property file at the offices of the Easement Holder, with off-site storage for back-up records retention.

Response to Possible Violations: If the Easement Holder identifies a possible violation during a monitoring visit, the Easement Holder will immediately notify the Landowner in writing. The notice will document the date, time, location, and description of the possible violation, and will contain instructions for avoiding or correcting the problem in keeping with the terms of the Easement and this Plan.

### 5.2.2 Approval

The Easement Holder shall approve any conditional uses of the Preserve contained in the Easement or this Management Plan, including but not limited to trail easements and trail/trailhead construction. Approval shall not be unreasonably withheld; however, approval shall be withheld if the proposed conditional use will negatively impact the Preserve or its Conservation Values.

## 5.3 Annual Work Plan

It is recommended that an annual work plan be drafted by the Easement Holder and approved by the Landowner to describe specific anticipated activities and timeframes during the following year. Any annual work plan shall be consistent with the terms of the Conservation Easement and this Management Plan, and subservient to both.

## 5.4 Plan Review and Amendments

It is recommended that the Easement Holder periodically review this Management Plan, in consultation with other conservation experts and using an adaptive management approach, and discuss proposed amendments with the Landowner. The adaptive management approach outlined in this Management Plan allows the Landowner and the Easement Holder some

flexibility in management decision-making. All decisions regarding the management of the Preserve shall be consistent with the Management Plan goal and the terms of the Conservation Easement. The Easement Holder and the Landowner shall jointly review and approve any management decision not expressly prescribed in this Management Plan. If a major change is needed that would necessitate an update or amendment to this Management Plan, the Management Plan may be updated or amended by the mutual consent and written agreement of the Landowner and Easement Holder. In that case, the Easement Holder will update the Management Plan and distribute a copy to the Landowner, and the Easement Holder will notify SNCC, WCB, and other Funders and stakeholders (grazing contractor, trail easement holder, etc.) within thirty (30) days of the update.

### 5.5 Changes in Personnel

The Easement Holder and the Landowner shall inform the other within thirty (30) days of any change in personnel affecting the efficient implementation of, and communication about, the Conservation Easement and Management Plan.

## 6.0 PROHIBITED ACTIVITES

### 6.1 Activities Prohibited by Conservation Easement

The Conservation Easement prohibits any activity or use of the Property that is inconsistent with the purpose of the Conservation Easement. In addition, the Conservation Easement contains the following specific prohibitions with regards to the Property and the Preserve:

(a) *The legal or* de facto *division, subdivision, or partitioning of the Property for any purpose.*

(b) *The placement, construction or maintenance of any buildings, structures or other improvements on the Preserve, other than roads and utilities for purposes of access to and servicing of the Homesite Reserve Area as allowed in the Management Plan, and fencing, trails, and signage that is allowed by the Management Plan such as one or more Preserve signs stating the Property's protected status and acknowledging project supporters and contributors.*

(c) *Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or below the surface of the Property, or granting or authorizing surface entry for any of these purposes. Notwithstanding, said activities shall be allowed to the extent they are part of and reasonably required for construction of improvements on the Homesite Reserve Area.*

(d) *The cutting of trees or the removal or alteration of vegetation on the Preserve, including weed abatement, other than Grantee-approved activities set forth in the Management Plan including but not limited to: the removal of non-native/invasive plants; the removal or pruning of trees or vegetation for trails, fire suppression, public health and safety; limited removal or alteration of vegetation associated with installation and maintenance of roads and utilities for the purposes of access to and servicing of the Homesite Reserve Area as allowed in the Management Plan.*

(e) *Planting, introduction or dispersal of non-native or exotic plant or animal species on the Preserve, with the exception of livestock for grazing that is compatible with the Management Plan.*

(f) *Unseasonable watering on the Preserve.*

(g) *Agricultural activity on the Preserve, other than livestock grazing that is compatible with the Management Plan.*

(h) *Use of fertilizers, herbicides, pesticides, biocides, or other agricultural chemicals on the Preserve unless allowed by the Management Plan.*

(i) *The altering of the general topography of the Preserve other than as required by law for public health and safety, or in conjunction with and as reasonably required for the installation of roads and utilities for the purposes of access to and servicing of the Homesite Reserve Area as allowed in the Management Plan.*

*(j) Mosquito abatement activities on the Preserve, unless required by law.*

*(k) Incompatible fire protection activities on the Preserve.*

*(l) Transferring any water right necessary to maintain or restore the Conservation Values of the Preserve.*

*(m) Commercial or industrial uses of the Preserve.*

*(n) The dumping or accumulation of trash, ashes, garbage, inoperative vehicles, waste or other debris on the Property including, without limitation Hazardous Materials. For the purposes of this instrument, "Hazardous Materials" shall mean any substance defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulations, or requirements as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment. Notwithstanding, said restrictions shall not prohibit the accumulation of trash, ashes, garbage, inoperative vehicles, waste or other debris on the Property including, without limitation Hazardous Materials, in the ordinary and customary use of the Homesite Reserve Area and in accordance with all applicable local, state or Federal rules and regulations, provided that any such activities do not impair the Conservation Values of the Preserve.*

*(o) Any motorized vehicle use off designated roadways identified in the Baseline Documentation, except for: the purposes of the ranching, maintenance or stewardship of the Property as allowed in the Management Plan; as required to comply with local, state or federal law; for public health and safety; or within the Homesite Reserve Area.*

### 6.2 Activities Prohibited by Management Plan

In addition to the prohibitions defined in the Conservation Easement, the following activities are prohibited by this Management Plan.

(a) Overgrazing of the Preserve by livestock. For the purposes of this Management Plan, overgrazing is defined as grazing that results in the non-localized reduction of residual dry matter to less than an average of four (4) inches in height, which would adversely affect the Conservation Values of the Preserve. The adverse results of overgrazing could include but may not be limited to such impacts as: the prevention of the regeneration of oaks and other native vegetation, the introduction and spread of non-native and invasive species, and erosion affecting water quality.

(b) Irrigation on the Preserve, except as approved by the Easement Holder to enhance or restore Conservation Values, or for agricultural uses within the "Allowable Agricultural Irrigation Zone" as specifically defined and designated on the map attached hereto as Exhibit D. Irrigation within this zone is intended to provide seasonal feed for livestock. Any irrigation within this zone shall be consistent with the protection of the Conservation Values as much as is commercially reasonable. Within the Allowable Agricultural Irrigation Zone, irrigation under the canopy of oak trees is discouraged, and irrigation under the canopy of oak trees greater than thirty-six (36) inches in diameter at breast

height (DBH) is subject to written permission from the Easement Holder. The adverse results of irrigation could include but may not be limited to such impacts as: the decline in health and death of oak trees, the displacement of native vegetation in favor of non-native and invasive vegetation, and the displacement of native wildlife in favor of non-native and destructive animal species.

(c) Creation of additional roads, with the exception of one road across the Preserve to the Homesite Reserve Area ("driveway"). The driveway may be paved. The driveway shall not be more than ten (10) feet in width, except that it may be wider in places to facilitate turnouts. The construction of the driveway shall avoid, if reasonably possible, damage to or death of oak trees greater than eight (8) inches in diameter at breast height (DBH). To ensure that the driveway is constructed and located in a way to minimize damage to the Conservation Values, the Landowner shall require written approval of the Easement Holder prior to constructing the driveway; such approval shall not be unreasonably withheld. The adverse results of new roads could include but may not be limited to such impacts as: the fragmentation and loss of habitat, the accumulation of dry matter posing a fire hazard, the introduction and spread of non-native and invasive species, and erosion affecting water quality.

(d) Widening, expansion or extension of existing roads, or paving (or similar improvement) of existing roads other than the driveway. Roads may not be regraded, but limited site-specific grading within the confines of existing roads, to repair erosion damage on roads and to keep roads passable, as part of reasonable maintenance, is allowed. Limited vegetation removal is allowable within five (5) feet of either side of the centerline of the road as reasonably necessary for road passage and maintenance. For purposes of this Section 6.2(d), limited vegetation removal is defined as the cutting, pruning, and removal of vegetation no lower than one inch from the ground, specifically not to include the denudement of the ground surface by scraping, grading or other means. The adverse results of extensive improvements to existing roads could include but may not be limited to such impacts as: the accumulation of dry matter posing a fire hazard, the introduction and spread of non-native and invasive species, and erosion affecting water quality.

## 7.0 HABITAT MANAGEMENT

### 7.1 Adaptive Management

The management of the Preserve should strive to follow adaptive management practices. Adaptive management is defined as a type of natural resource management in which decisions are made as part of an ongoing science-based process. Adaptive management involves testing, monitoring, and evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings and the needs of society. Results are used to modify management policy, strategies and practices.

### 7.2 Joint Responsibility

The management of the Conservation Values and in particular the habitat on the Preserve is a joint responsibility of the Landowner and the Easement Holder. Both the Landowner and the Easement Holder have a duty and obligation to uphold the Easement and therefore protect the Conservation Values.

The Easement and this Management Plan contain prohibitions and restrictions on Landowner activities that are or could be harmful to the Conservation Values.

The Easement and this Management Plan also grant certain rights to the Easement Holder to prohibit and restrict harmful activities, enforce these prohibitions and restrictions, and perform remediation and restoration or demand that remediation and restoration be performed by the Landowner or third parties.

### 7.3 Vegetation Management

Although no specific vegetation management activities are recommended at this time, it is recognized that management or use of the Preserve is likely to influence existing vegetation distribution and composition. Given that conservation of natural features is a stated purpose of the Easement, it is stressed that all management activities on and uses of the Preserve shall be done with due consideration of their impacts on vegetation. No undue harm to vegetation shall result from any management activities on or uses of the Preserve, except in the fulfillment of fire management and exotic plant control as described in this Management Plan.

#### 7.3.1 Exotic Pest Plant Species Management

Although no exotic pest plant species management is required at this time, it is recognized that use of the Preserve is likely to influence existing vegetation distribution and composition. Management of exotic (non-native) pest plant species can be a complex and expensive task. It is important to recognize that the Easement Holder (or any other party) can only conduct as much exotic species management as can be accomplished with available funding. Given that conservation of natural features is a stated purpose of the Easement, it is stressed that all exotic pest plant management activities on the Preserve shall be done with due consideration of their impacts on native vegetation, wildlife and water quality.

For the purposes of this Management Plan, plants native to the Preserve will be defined as those plants believed by the scientific community to have been present in western Placer County prior to the settlement of Europeans. Exotic pest plants are plants that are not native with the potential to invade habitats, replacing native vegetation. The California Exotic Pest Control Council List A, List B, and Red Alert List are useful referencing in determining exotic pest plants of concern.

Exotic weed management via moderate livestock grazing is identified as the best strategy of control of non-native species. Some mechanical removal and/or biological controls are also permissible, given advance written permission by the Easement Holder. Chemical herbicides may be used only with the advance written permission of the Easement Holder. Such permission will be denied if the Easement Holder deems in its sole discretion that the proposed use of chemical herbicides is excessive or will otherwise do more harm than good to the Conservation Values of the Preserve.

### 7.3.2 Fire Management

Fire management is a responsibility of the Landowner. The Easement Holder and the Landowner should work together to devise a fire management approach with the mutually complementary goals of reducing the threat of catastrophic fire and providing important ecological benefits. The Landowner bears the obligation and cost of meeting any fire management and suppression responsibilities.

## 7.4 Wildlife Management

Although no specific wildlife or wildlife habitat management activities are recommended at this time, it is recognized that management or use of the Preserve is likely to influence existing wildlife and wildlife habitat distribution and composition. Given that conservation of wildlife habitat is a stated purpose of this Management Plan, it is stressed that all management activities on and uses of the Preserve shall be done with due consideration of their impacts on habitat. No undue harm to wildlife or significant wildlife habitats shall result from any management activities on or uses of the Preserve, except in the fulfillment of fire management and exotic plant control as described in this Management Plan.

## 8.0 REMEDIATION/RESTORATION ACTIVITIES

### 8.1 Remediation

Remediation is required when prohibited or unauthorized activities or uses of the Preserve damage the Conservation Values of the Preserve. The Easement Holder has the right and obligation to require remediation of violations of the Easement or this Management Plan, including the right to require responsible parties (including the Landowner) to bear costs for required remediation.

### 8.2 Restoration and Enhancement

Although no specific restoration and enhancement activities are recommended at this time, it is recognized that the Landowner and Easement Holder may want to conduct habitat restoration in the future. This could include the removal of exotic plant species, planting native plants or other restoration activities. Given that conservation of natural features is a stated purpose of the Easement, it is stressed that all management activities on the Preserve shall be done with due consideration of their impacts on vegetation, wildlife and water quality.

## 9.0 PROPERTY MANAGEMENT

### 9.1 Structures and Other Like Improvements

The attached Baseline Documentation Report describes the structures and other like improvements (collectively, "man-made elements") on the Property. The Landowner is responsible for managing and maintaining any man-made elements on the Preserve in a manner that is consistent with the protection of the Conservation Values. The Landowner, in conjunction with any relevant neighborhood associations or groups, is responsible for maintaining the two private roads that cross the Property.

### 9.2 Fencing

Fences can be an important tool in managing property, habitat, and land use, and can assist in protecting the Conservation Values of the Preserve. A combination of required, conditional, and optional fencing – using an adaptive management approach – is prescribed for the multiple uses of the Property.

#### 9.2.1 Exterior Property Fencing

Within one year from the date of the recordation of the Conservation Easement, the Landowner shall, to the extent not already fenced, fence the western boundary, northern boundary, and portions of the eastern and southern boundaries of the Property, as further defined and as described as "Required Exterior Fencing" in Exhibit D, attached hereto. All new exterior fencing shall be 4-strand (or more) barbed wire fencing. This exterior fencing (and any associated tasks and costs) shall be the Landowner's responsibility and shall be at the Landowner's expense. The Landowner may, at its discretion, ask adjacent property owners to share the cost of the fencing along shared property lines, provided that the Landowner retains the responsibility for the fencing for purposes of this Management Plan. The exterior fencing shall have unfenced gaps where Big Hill Road and New Hope School Road cross the Property line. The exterior fencing (and any associated tasks and costs) is required by the Easement Holder to meet Management Plan goals and to discourage trespassing and incompatible land use. In the future, PLT may require a gap or a gate in the exterior fencing at a location to be determined near the northwest corner of the Property to accommodate a public trail; such alteration of the exterior fencing shall not be at the Landowner's expense, but rather it shall be a responsibility and expense of the Trail Easement Holder as described in Section 9.5.1 below. Due to topography, inaccessibility, and other reasons, some other portions of the exterior of the Property do not need to be fenced. If, however, the Landowner wishes to fence the remaining exterior of the Property, the Landowner must provide notice to the Easement Holder (approval is not required).

#### 9.2.2 Homesite Reserve Area Fencing

Either the Landowner or the Easement Holder may opt to fence the exterior of the Homesite Reserve Area, once the Homesite Reserve Area has been delineated, to support the multiple uses of the Liberty Ranch property. This fence must be located along the

boundary line of the Homesite Reserve Area unless otherwise agreed to in writing by both the Landowner and the Easement Holder. This fencing may be of any type (wood, barbed wire, etc.). The costs of this fencing shall be borne by the party opting for this fencing.

### 9.2.3 Interior Fencing

At the time of the recordation of the Conservation Easement, no interior fencing is required. However, temporary or permanent interior fencing (or cross-fencing) may be advisable if and when land use activities change in the future. If, due to a change in land use activities by the Landowner such interior fencing (and any associated tasks and costs) is required to ensure compliance with the terms of the Easement or this Management Plan, or to prevent a loss of Conservation Values, at the discretion of the Easement Holder, then the required interior fencing shall be the responsibility of the Landowner and shall be at the Landowner's expense. If interior fencing (and any associated tasks and costs) is required to restrict or direct allowable public use associated with public trail(s) on the Property, then it is the responsibility of the Trail Easement Holder as defined in item 9.5 below, subject to approval of the Landowner and the Easement Holder. The Easement Holder may voluntarily fence portions of the interior of the Preserve to enhance the Preserve's Conservation Values, at the Easement Holder's expense, subject to advance written approval by the Landowner; such approval will not be unreasonably withheld. The Landowner may also voluntarily fence portions of the interior of the Preserve for its own reasons (for example, around the proposed irrigation area) if the Easement Holder provides written approval in advance; such approval will not be unreasonably withheld if the proposed fencing does not conflict with the protection of the Conservation Values.

## 9.3 Signage

Preserve signage and warning signs discouraging trespassing and incompatible land uses are allowed, and in some cases required, by PLT and the Funders.

### 9.3.1 Preserve Signage

Large signs (approximately 2' x 3') describing the Preserve, listing contributors, and warning of incompatible use will be placed at one or more entrances to the Preserve on Big Hill Road and New Hope School Road, and may be placed at any other likely entrance locations and along trail routes. Preserve signage cost, installation and maintenance are the responsibility of the Easement Holder.

### 9.3.2 Warning Signage

The Landowner and the Easement Holder may, at their own discretion and cost and with advance Notice to the other party, place signs discouraging trespassing and incompatible land uses along the Preserve boundary lines. The Easement Holder reserves the right to prohibit and/or remove signage it deems in appropriate, with advance notice to the Landowner.

## 9.4 Public Access

This Management Plan and the Conservation Easement anticipate and allow limited public access.

Specifically, public access is anticipated and allowed by this Management Plan and the Conservation Easement for the express purpose of accessing a future trail (or trails) on and across the Property, for generally passive recreational public use.

Public access for other activities on the Property may be allowed by mutual written agreement between PLT and the Landowner, provided it does not interfere with or negatively impact the goals of this Management Plan, and the Conservation Values as defined in the Conservation Easement.

## 9.5 Trails

One or more public use trails and trailheads are allowed by the Conservation Easement.

### 9.5.1 Main Trail

Specifically, one main public use trail ("Main Trail") shall be constructed on the Property for passive, non-motorized recreational use, including pedestrian, bicycle, and/or equestrian use. The Main Trail will run generally northward along an ephemeral stream corridor from the southeastern Property corner, crossing Big Hill Road, and then running NW along a perennial stream corridor to the northwestern Property corner, linking the Coon Creek watershed to the Bear River watershed. The exact route/location of the Main Trail is subject to a number of factors, including topography, slope, and adjacent land type/use. The Main Trail will be an approximately 1 ¼ mile trail. The approximate Main Trail route is delineated in the attached Trails Map (Exhibit J).

At the direction of PLT, and within six (6) months of the date of the recordation of the Conservation Easement, the Landowner shall grant an Irrevocable Offer of Dedication ("IOD") for a trail easement to the County of Placer or other suitable entity approved by PLT for the purposes of creating the specifically delineated Main Trail. The IOD must be approved by PLT in writing, and compatible with the terms of the Easement and this Management Plan; PLT approval will not be unreasonably withheld.

After the grant of the IOD, at the request of PLT and subject to the approval of PLT, the Landowner shall grant a trail easement to the County of Placer or other suitable entity approved by PLT ("Trail Easement Holder") for creation (including grading, clearing, and construction) and ongoing maintenance of the Main Trail. The Trail Easement Holder must submit a construction, management and maintenance plan for the Main Trail to the Landowner and to PLT for written approval. The trail easement must be approved in writing, and if compatible with the terms of the Easement and this Management Plan, approval by PLT and the Landowner will not be unreasonably withheld.

The trail easement will be a width of fifteen (15) feet, and may be wider when reasonably necessary to negotiate the Main Trail around physical features deemed by PLT to be important part of the Conservation Values (such as rock outcroppings, large trees, or important native plant communities) or to navigate along topographical lines or steep grades. The grade of the Main Trail shall be no greater than ten percent (10%), unless it is impractical to do so for short, steep stretches of the Main Trail (in which case the grade shall be as minimal as possible). Bridges will be constructed to cross perennial streams. The trail easement area shall be fenced where reasonably necessary by the Trail Easement Holder to control activities and minimize impact to other significant Conservation Values and to control access to areas of the Property outside the trail easement; such fencing costs and obligations will be the Trail Easement Holder's; and the location of the fencing may be located a reasonable distance outside the easement where reasonably necessary for the aesthetics of the trail. To the extent that fencing shall be located outside of the trail easement, said location shall be subject to the approval of the Landowner, which approval shall not be unreasonably withheld. Existing fencing and other suitable barriers (such as large rock outcroppings or blackberry hedges) may be utilized in lieu of new fence construction where appropriate, if approved by PLT. Signage will be erected or allowed to be erected by PLT at various points on the Main Trail, including interpretive signage at appropriate locations and cautionary signage at the Preserve boundaries and on both sides of Big Hill Road.

The Trail Easement Holder shall bear all costs for construction and maintenance of the Main Trail, and shall be responsible for ensuring that the trail easement area, activities, and uses are compatible with the terms of the Easement and this Management Plan.

Motorized vehicles shall be prohibited on the Main Trail and any other trails on the Property, with the exception of the use of utility vehicles by the Landowner, PLT, and/or the Trail Easement Holder, as needed for trail maintenance purposes, or access by emergency personnel for public heath and safety.

The Main Trail, at the time of construction, shall be part of a larger trail network, whether then in existence, or for which easements or fee title has been acquired, so that the Main Trail will be connected to other trails located off of the Property.

No constructed trailheads are allowed on the Preserve. No parking shall be allowed on the Preserve, with the exception of parking of vehicles by the Landowner or the Easement Holder on or adjacent to existing roads for purposes consistent with the Easement and this Management Plan.

At its sole discretion, PLT has the right and obligation to disapprove any trail construction plans that it deems in its sole discretion to negatively impact the Preserve's Conservation Values.

## 9.6 Motorized Vehicle Use

Motorized vehicle use on the Preserve can be an important part of the Landowner's property management, and may also be necessary for the transportation and management of livestock by the Landowner or the grazing tenant(s), and monitoring of the Preserve by the Easement Holder. Although recreational motorized vehicle use is prohibited by the Conservation Easement, motorized vehicle use is allowed for the management and maintenance of the Property.

Reasonable care should be taken – especially by the Landowner, grazing tenant(s) and other frequent users – that vehicle use does not unnecessarily damage, erode or scar the landscape. Also, reasonable care should be taken by all users that motorized vehicles do not inadvertently transport non-native invasive plant species onto the Preserve; motor vehicle users are especially encouraged to ensure that the tires of their vehicles are free of such matter.

Motorized vehicle use shall be confined to existing roadways if commercially reasonable to do so. For the purposes of livestock and grazing management, and for general Property management and maintenance purposes, motorized vehicles may be used "off road" as long as the use does not have a significant adverse affect on the Conservation Values. Further, the level of off road activity must not be sufficiently intense or repetitive in a certain location as to create a new roadway.

Smaller motorized vehicles designed for traversing rough terrain with minimal impact – such as ATVs or utility vehicles – are recommended for off road use rather than motorcycles, cars, or trucks.

The use of heavy equipment – such as bulldozers, loaders and backhoes – off of designated roadways is only permissible with prior written approval from the Easement Holder; such approval shall not be unreasonably withheld unless the proposed use would have a significant adverse affect on the Conservation Values.

### 9.7 Research, Archaeological and Educational Uses

Individuals or groups wishing to use the Preserve for scientific research, archaeological research, or educational purposes that are consistent with the terms of the Easement may be allowed, with written approval from the Landowner and PLT.

## 10.0 REFERENCE

California Wildlife Conservation Board (WCB). 2007. Grant Agreement WC-6064RN (Big Hill Preserve, Expansion 1).

California Wildlife Conservation Board (WCB). 2006. Policies Governing Grant Agreements and Conservation Easements.

Freedom Trust. 1994. Certification of Trust.

Placer Land Trust (PLT) and Freedom Trust. 2007. Deed of Conservation Easement (Liberty Ranch Big Hill Preserve, Placer County).

Placer Land Trust (PLT) and Freedom Trust. 2007. Purchase & Sale Agreement (Freiheit Big Hill Preserve Conservation Easement, Placer County, California).

State of California, Resources Agency. 2007. Sierra Nevada Cascade Conservation Grant Program Grant Agreement S82211-0 (Freiheit Big Hill Preserve).

United States Department of the Interior, Geological Survey. 1981. Lincoln, California Quadrangle, Placer County. 7.5 Minute Series Topographic. U.S. Geological Survey.

## 11.0 LIST OF EXHIBITS

Exhibit A – Legal Description of Property

Exhibit B – Vicinity Map

Exhibit C – Description of Preserve

Exhibit D – Description of Planned Fencing, Irrigation, and Homesite Reserve Area

Exhibit E – Topographic Map

Exhibit F – Soils Map

Exhibit G – Hydrology/Watershed Map

Exhibit H – Land Cover Map

Exhibit I – Baseline Documentation Report for Liberty Ranch Big Hill Preserve

Exhibit J – Trails Map

# EXHIBIT A

## LEGAL DESCRIPTION

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**PARCEL ONE:**

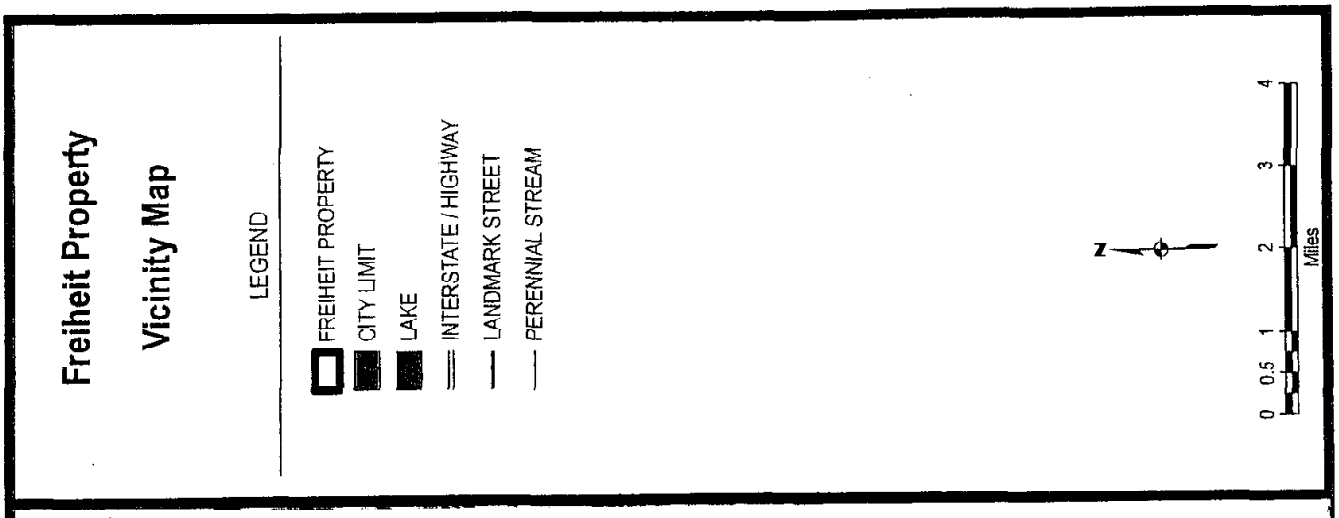
**THE EAST HALF OF SECTION 11, TOWNSHIP 13 NORTH, RANGE 7 EAST, M.D.B.&M.**

**EXCEPTING THEREFROM ALL THAT PORTION LYING WITHIN THE EXTERIOR BOUNDARIES OF PARCEL MAP NO. 72107 FILED FOR RECORD MARCH 21, 1997, IN BOOK 9 OF PARCEL MAPS, AT PAGE 152.**

**APN: 026-061-013-510 AND 026-061-013-520**

**PARCEL TWO:**

**A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH, FOR INGRESS AND EGRESS AS DISCLOSED IN GRANT DEED RECORDED MARCH 24, 1995, INSTRUMENT NO. 95-014536 RECORDS OF PLACER COUNTY.**

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**11521 BLOCKER DRIVE, SUITE 100**
**AUBURN, CA 95603**

## Exhibit C

## Description of Preserve

The Preserve consists of the Property minus the Homesite Reserve Area as described in the Conservation Easement and as it may be delineated in the future.

Until such time as the Homesite Reserve Area has been delineated and the Conservation Easement amended and recorded to reflect the Homesite Reserve Area delineation, the Parties agree that the entire Property shall be considered part of the Preserve, subject to the terms and conditions of the Conservation Easement.

# Exhibit D

**Freiheit Conservation Easement**
**Management Plan**

## Irrigation Area and HRA Zone Map

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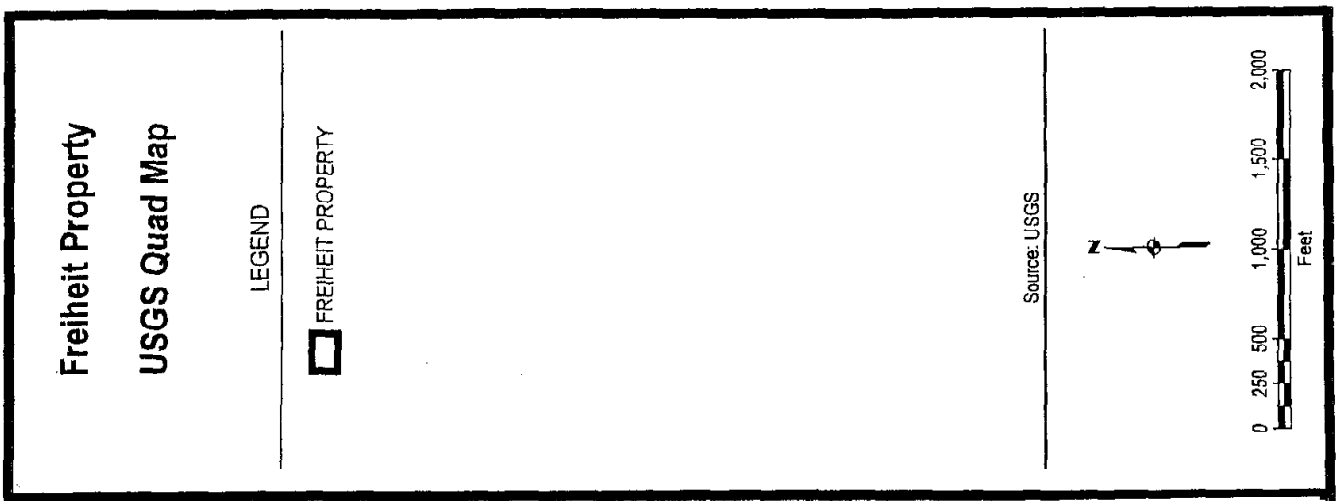
Notes - Map Created June 17, 2007

1. Parcel boundary, water features, and red road layer provided by Placer County GIS, November 2006.
2. Farm road layers were created on April 21 using a Garmin GPS unit.
3. Oak woodland canopy extent based on 2005 arial photograph.
4. The Homesite Reserve Area (HRA) Zone location area was created using a circle with and 800' radius. The center of the circle is located 300' north of where New Hope School Road crosses the western property line.
5. Irrigation area defined by measuring 500' along the western property line, north of New School Road and 500' along the southern property line, east of New School Road and creating a triangular area in the southwestern portion of the property,
6. Irrigation area and homesite reserve area zone presened on this map are estimations. If area of acitivity is near boundary profession survey verification will be required to determine extact boundaries.

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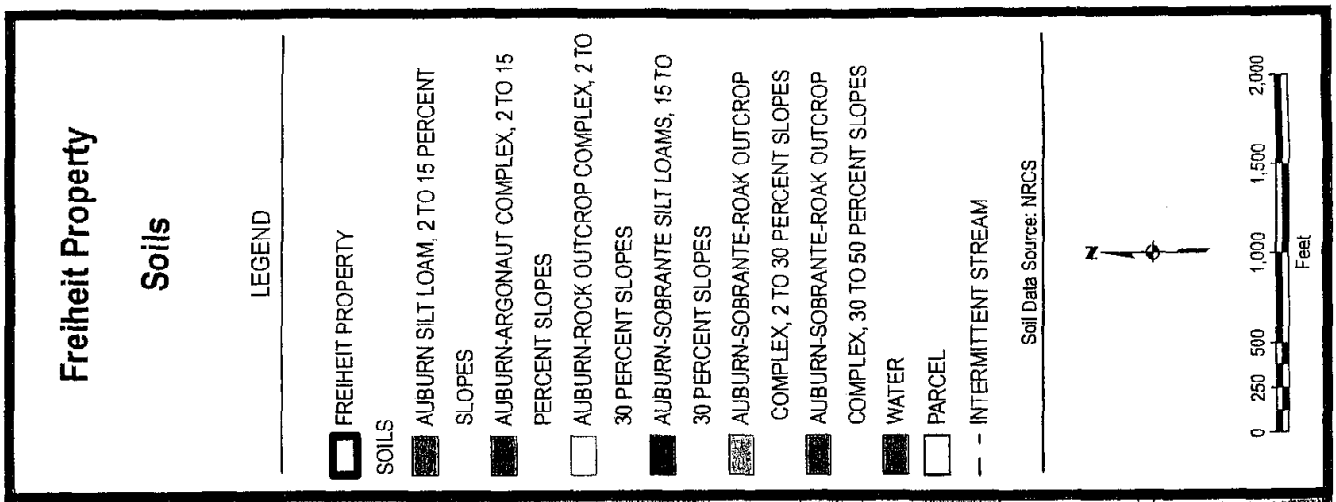


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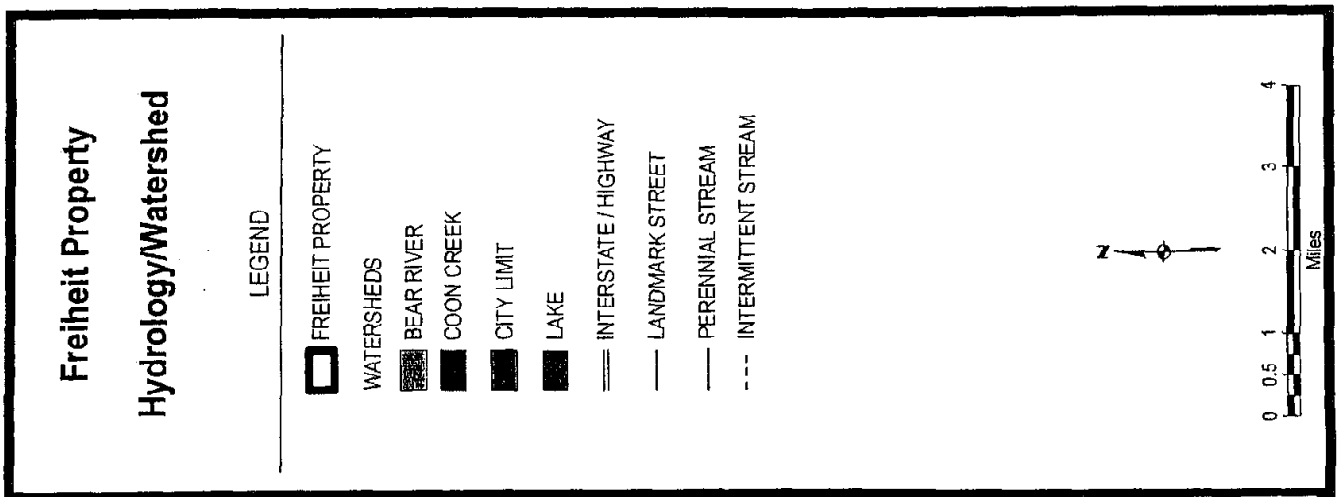


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# Freiheit Property
# Land Cover

**CWHR* Habitat Types**

- Annual Grassland
- Blue Oak Pine Woodland
- Blue Oak Woodland
- Mixed Chaparral
- Montane Hardwood Conifer
- Urban
- Montane Hardwood
- Water
- Property Boundary

* CA Wildlife Habitat Relationships

Source: CalVeg 2000

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**Exhibit I**

**Baseline Documentation Report**

[INCLUDED ON THE FOLLOWING PAGES]

# Exhibit J - Trails Map

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# Baseline Documentation Report
# for
# Liberty Ranch Big Hill Preserve

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**AUBURN, CA 95603**

July 27, 2007

Prepared by the staff of Placer Land Trust, a California nonprofit public benefit corporation, with the assistance of independent contractors Mehrey Vaghti and Brian Williams, for Placer Land Trust's acquisition and permanent protection of a perpetual conservation easement on the Liberty Ranch Big Hill Preserve in Placer County, California.

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# I. Conservation Easement Area ("Property")

## Conservation Easement Summary

**Disclaimer**
The Conservation Easement Summary in this Baseline Documentation Report is for informational purposes only. In the case of any inconsistency between this Baseline Documentation Report and the Easement, the Easement shall prevail.

**Grantor**
Name: H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994
Contact: H. Robert Freiheit
Address: PO Box 2332, Roseville, CA 95746-2332
Phone: (916) 797-0207 Email: robert@libertyholding.com

**Grantee**
Name: Placer Land Trust
Contact: Jeff Darlington, Executive Director
Address: 11521 Blocker Drive, Suite 100, Auburn, CA, 95603
Phone: (530) 887-9222 Email: info@placerlandtrust.org

**Conservation Easement Information**
Recording: Expected date of recordation of the Conservation Easement is October 1, 2007.
Property: Placer County Assessor's Parcel Number 026-061-013-510 and 026-061-013-520 is covered by the Easement.
Location: The Property is located on Big Hill Road northwest of the City of Auburn and northeast of the City of Lincoln, in the unincorporated area of Placer County. It contains relatively pristine and unfragmented oak woodlands in the Coon Creek and Bear River watersheds. (The Property is further described on the following page and the attached maps.)
Size: The size of the Property is approximately 321 acres; 313 acres is designated as a protected Preserve and up to 8 acres is designated as a Homesite Reserve Area.

**Purpose**
It is the purpose of this Easement to assure that the Property will be retained forever in its natural, open space, and scenic condition, and to protect forever the Conservation Values of the Property as specified in this Baseline Documentation Report. Further, it is the purpose of this Easement to prevent any use or development of the Property that will significantly damage or impair the Property or its Conservation Values, with the exception of development in the Homesite Reserve Area as allowed and limited by the incorporated Management Plan for Liberty Ranch Big Hill Preserve (Management Plan). Grantor and Grantee intend that this Easement will confine the use of the Property only to

such activities that are consistent with the purpose and terms of this Easement and the incorporated Management Plan.

**Conservation Values**
The Property possesses exceptional natural, scenic, recreational and open space values of great importance to Grantors and Grantee, the Sierra foothills ecosystem, and the people of Placer County and the State of California. These values, as further described in Section II, are collectively referred to as the "Conservation Values". The Conservation Values of the Property are generally defined as the natural and scenic values the Property currently possesses. The natural and scenic values of the Property ("Conservation Values") are more particularly described in Section III of this report. Collectively, these values contribute to a healthy Sierra foothills ecosystem, which is of great importance to Placer Land Trust, PLT's project partners and funders, the people of Placer County, and the State of California.

**Specific Restrictions**
Any activity on or use of the Property inconsistent with the purpose of this Easement or the Management Plan, is prohibited. A complete list of specifically prohibited activities and uses is listed in the Easement.

**Grantor's Reserved Rights**
Grantor reserves many rights as the landowner of the Property. In addition to those rights not otherwise restricted by the Easement, the Grantor specifically reserves the right to limited development in the Homesite Reserve Area and certain water rights. A complete list of specifically reserved rights is listed in the Easement.

## Location of Property

The Property (~321 acres) contains Big Hill (elev. 1613 feet) on the divide of the Coon Creek and Bear River watersheds of Placer County. It is situated in one of the largest unfragmented areas of oak woodlands in Placer County. The private paved Big Hill Road crosses the northern portion of the Property, and the private unpaved New Hope School Road crosses the southwestern corner of the Property. The Property consists of Placer County Assessor's Parcel Number 026-061-013-510 and 026-061-013-520. For the Property's legal description and plot map, see Attachment D, Title Report. For a visual description of the Property, see Attachment A-2.

The Property is located in the Sierra Nevada foothills 840 to 1613 feet above mean sea level in a largely undeveloped area of western Placer County. The topography of the Property varies throughout and is characterized by a variety of topological features including; perennial and ephemeral streams draining steep rocky outcroppings, oak woodland savannahs, and riparian corridors (along NID fed traditionally ephemeral streams). Historically, the northern portion of the Property was grazed by cattle, sheep, and goats. The property is currently seasonally grazed. Section III of this report contains a more detailed description of the Property.

# II. Baseline Documentation of Conservation Values

## Significance of Property

The permanent preservation of the Property in its current state will provide significant natural, scenic, and open space benefits to the public. The Property provides diverse plant and wildlife habitat, constitutes an important part of the Big Hill viewshed, the oak woodland environment of western Placer County, and the Bear River and Coon Creek watersheds.

### Ecological Significance

Liberty Ranch Big Hill Preserve is composed of mixed oak woodlands, steep rocky outcroppings and riparian corridors fed by Nevada Irrigation District (NID) that support a variety of plant communities and wildlife species. The property supports several plant communities including mixed oak woodlands, oak woodland savannah, and a narrow band of riparian woodland along the NID fed streams.

A healthy oak woodland can moderate temperature extremes, reduce soil erosion, and sustain water quality, thereby supporting the richest diversity of wildlife species abundance over any other habitat in California. Approximately 331 species of wildlife inhabit Placer County's oak woodlands. The Property's Big Hill location enhances the preservation of both the Bear River and Coon Creek watersheds and will further the protection of riparian habitat and water quality for Placer County and surrounding areas. Riparian zones provide critical habitat for a wide range of terrestrial and aquatic species while also contributing to water quality by filtering excessive nutrients and other pollutants before the water reaches the stream.

### State Conservation Goals

The protection of this Property will benefit the people of State of California and is in accordance with the goals of the State. In Section 815 of the California Civil Code, the California Legislature declared: (1) that "the preservation of land in its natural, scenic, agricultural, historical, forested, or open-space condition is among the most important environmental assets of California"; and (2) that it is "in the public interest of this state to encourage the voluntary conveyance of conservation easements to qualified nonprofit organizations".

The preservation of the Property is in keeping with the goals of the following State agencies and programs that have chosen to provide grant funding for this project:

- Sierra Nevada-Cascade Conservation Grant Program, administered by the Resources Agency using Proposition 50 funding to protect water quality.
- Wildlife Conservation Board, providing funding for wildlife conservation and related public recreation.

The goals of the project are also in keeping with the goals of the California Dept. of Conservation, the California Dept. of Fish & Game, and the State Water Resources Control Board.

**Local Significance**

The protection of the Property supports the goals of Placer County, as evidenced not only by the County's funding contribution to the project, but also by the Placer County General Plan, which includes as its goals the protection of:

- Scenic corridors through the use of open space easements
- Aesthetic qualities of natural drainage courses
- Significant ecological resource areas
- Diversity of plant and animal communities

The preservation of the oak woodlands on the Property is in keeping with the goals of Placer County, as evidenced by the Placer County Oak Woodland Management Plan which supports the preservation of "oak woodland-dominated natural communities and the value these communities provide to wildlife, air quality, water quality, and quality of life." The protection of the Property is in line with the proposed Placer County Habitat Conservation Plan / Natural Communities Conservation Plan (aka, the "Placer County Conservation Plan").

## Recreational Significance

No public recreation exists on the Property; however, the Property has limited but significant public recreation potential, especially if/when existing and new public-use trails can be extended to and through the Property.

## Agricultural Significance

Although the Property does not contain prime soils, it is ideal for dry pasture grazing. Over the past several generations, the Property has been grazed by cattle, sheep, and goats, and is currently supporting seasonal semi- free range cattle grazing.

# III. Documentation of Baseline Conditions

## Description of Natural Values

The natural values of the Property as they exist at the time of this report (as described by the Property's topography, vegetation, wildlife, hydrology, geology, and soils) are included in the Conservation Values of the Property.

The Property is located in the Sierra Nevada foothills ranging from approximately 840 to 1613 feet above mean sea level in an undeveloped region that supports the largest contiguous area of oak woodlands remaining in Placer County. In general, the topography of the Property varies from slightly rolling to very steep slopes, with dense oak and conifer woodlands with dense undergrowth. The Property encompasses several sub-drainages and Big Hill which offers an impressive view of the Sacramento Valley and Coast Ranges to the west, the Bear River canyon to the north, and the Sierra crest to the east.

### Topography

The majority of the property extends north from the highest point on Big Hill and has a north-northeast facing aspect. The northern most third of the property, extending up from the creek bottom has a generally west-southwest facing aspect. The portion of the property extending north of the top of Big Hill drains into the Bear River. The southwest corner of the property slopes southwest from the highest point on Big Hill and eventually drains into Coon Creek.

### Vegetation

The property generally consists of three main plant communities: blue oak woodland, California annual grassland, and riparian woodland. Blue oak woodland dominates the Liberty Ranch property, but its appearance varies considerably depending on slope and aspect. Gentle slopes and hilltops such as Big Hill are generally park-like with a 20-60% canopy cover dominated by blue oak (*Quercus douglasii*). Oaks generally range from 8-24 inches in diameter at breast height (DBH) but some trees exceed 30 in (80 cm). Interior live oaks (*Q. wislizenii* var. *wislizenii*) and foothill pines (*Pinus sabiniana*) are scattered, tending to occur in rocky areas. Shrub cover is generally sparse (<10%) and often clustered near rock outcrops. Poison-oak (*Toxicodendron diversilobum*), chaparral honeysuckle (*Lonicera interrupta*), holly-leaf redberry (*Rhamnus ilicifolia*), and buckbrush (*Ceanothus cuneatus*) are the most frequent. As is typical of most grazed blue oak woodlands, the herbaceous layer is continuous and dense, with exposed soil generally limited to areas disturbed by animals, vehicles, or equipment. Introduced annual grasses are typically dominant, but the grazing of cattle has controlled their dominance to some degree, allowing a considerable cover of annual forbs (roughly 20-40%). Dominant forbs include dove's-foot geranium (*Geranium molle*), filarees (*Erodium* sp.), bedstraws (*Galium* sp.), and sanicles (*Sanicula* sp.). Probable dominant grasses include hedgehog dogtail (*Cynosurus echinatus*), bromes (*Bromus* sp.), annual ryegrass

(*Lolium multiflorum*), barleys (*Hordeum* sp.), vulpias (*Vulpia* sp.), and medusahead (*Taeniatherum caput-medusae*). Widely scattered native perennial grasses included needlegrass (*Nassella* sp.) and big squirreltail (*Elymus multisetus*).

North- and east-facing slopes, especially the northeast of Big Hill, are generally dominated by blue oak but also include interior live oak, foothill pine, California black oak (*Q. kelloggii*), and California buckeye (*Aesculus californicus*). Overall canopy cover is generally 60%-90%. The shrub layer is far more extensive than on gentle hilltop slopes. Poison oak is dominant but chaparral honeysuckle, holly-leaf redberry, toyon (*Heteromeles arbutifolia*), and coffeeberries (*Rhamnus tomentella* ssp. *tomentella*) were also present. The herbaceous layer is not as dense as in the open areas, but the relative cover of native species is greater. Herbaceous vegetation generally restricted to the partly-shaded slopes of this zone includes Chinese-houses (*Collinsia heterophylla*), foothill collinsia (*Collinsia sparsiflora* var. *collina*), sessile wood-rush (*Luzula comosa* var. *subsessilis*), Henderson's shooting-star (*Dodecatheon hendersonii*), and California melic (*Melica californica*). The richness of native species in this zone is especially apparent on the lower slopes near the zone of riparian influence, where the understory was dominated by locally interesting native species: maidenhair fern (*Adiantum jordanii*), Sierra fawn-lily (*Erythronium multiscapoideum*), true lily (*Lilium* sp.), coyote-mint (*Monardella* sp.), cinquefoil (*Potentilla* sp.), and others. The shrub layer even includes a few gooseberries (*Ribes* sp.) and probable serviceberries (*Amelanchier* sp.), quite unusual at this elevation. The diverse assemblage of natives on this foothill property, particularly < 1,000 feet, is perhaps its most unique character.

Patches of grassland are found on the south side of Big Hill. These were most likely areas of blue oak woodland that were historically cleared for range improvement. The grassland flora is typical of the valley-foothill region, with annual grasses mixed with native and non-native forbs. Grass species are similar to those in the blue oak woodlands, but the composition shifts to favor different species, especially medusa-head which is seldom found beneath the canopy of fairly dense oak woodlands. Forbs and wildflowers include subterranean clover (*Trifolium subterraneum*), filarees, little hop clover (*Trifolium dubium*), johnnytuck (*Triphysaria eriantha* ssp. *eriantha*), popcorn-flowers (*Plagiobothrys* sp.), and Douglas' violet (*Viola douglasii*).

Narrow but significant riparian corridors follow the intermittent streams on the north side of the property. Overstory dominants are valley oak (*Q. lobata*) and white alder (*Alnus rhombifolia*), but red willow (*Salix laevigata*) and interior live oak are also important. Understory dominants include Himalayan blackberry (*Rubus discolor*) and poison oak, but their discontinuous cover permits a number of other species including locally dominant wild grape (*Vitis californicus*), horsetails (*Equisetum telmateia* ssp. *braunii*), skunkbrush (*Rhus trilobata*), sedges (*Carex* sp.), and many others.

Rock outcrops are less frequent on the Liberty Ranch property than on the neighboring Taylor Ranch, generally covering 1-10% of the ground. Rock outcrops augment the site's floristic diversity by providing microhabitats and/or refugia from grazing that benefit many plants, some of which may not occur in the absence of outcrops. These include small-flowered miner's lettuce (*Claytonia parviflora* ssp. *parviflora*), Bolander's woodlandstar (*Lithophragma bolanderi*), Hartweg's tauchia (*Tauchia hartwegii*), and pterostegia (*Pterostegia drymarioides*). More exposed rocky slopes provide habitat for caterpillar phacelias (*Phacelia cicutaria*) and bird's-foot ferns (*Pellaea mucronata* var. *mucronata*).

**Invasives**

Invasive plants occur at relatively low densities over most of the site. One exception is along the northeastern creek just west of the east boundary, where a cluster of invasives appears to be associated with historical disturbance, possibly an old homestead (?). Weedy species in this area include yellow star thistle (*Centaurea solstitialis*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus*), cocklebur (*Xanthium strumarium*), and Klamathweed (*Hypericum perforatum*). [The small area (<2 acres) and proximity near many native plants propagules makes this site a good place to target restoration efforts]. Other invasives included Himalayan blackberry along the streams and medusahead in the grassland and savannah. Newly cut roads are very likely to stimulate weed growth and may serve as a source of weed introductions into new places.

**Wildlife**

California's oak and riparian woodlands are well known for their abundant wildlife, and the Liberty Ranch property is no exception. The presence of multiple plant communities, intermittent streams, connection to adjoining natural areas, and a few special habitat features combine to provide habitat for almost the entire suite of potential wildlife species that could occur in Placer County's oak woodlands. The only species unlikely to normally occur would be those that require an extensive shrub canopy [e.g. California thrasher (*Toxostoma redivivum*)], or those that require special habitat features such as sheer cliffs [e.g., white-throated swift (*Aeronautes saxatalis*)].

Although some animals prefer certain plant communities, most animals on the property may occur throughout the property and many even prefer the complementary resources of mixed habitats. These species include western skink (*Eumeces skiltonianus*), southern alligator lizard (*Elgaria multicarinata*)*, sharp-tailed snake (*Contia tenuis*), Cooper's hawk (*Accipiter cooperi*), California quail (*Callipepla californica*), western screech-owl (*Otus kennicottii*), acorn woodpecker (*Melanerpes formicivorus*)*, Nuttall's woodpecker (*Picoides nuttallii*)*, ash-throated flycatcher (*Myiarchus cinerascens*), western scrub-jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*)*, bushtit (*Psaltriparus minimus*)*, blue-gray gnatcatcher (*Polioptila caerulea*)*, ornate shrew (*Sorex ornatus*), California myotis (*Myotis californicus*), gray fox

(*Urocyon cinereoargenteus*), striped skunk (*Mephitis mephitis*), bobcat (*Lynx rufus*), feral pig (*Sus scrofa*), western gray squirrel (*Sciurus griseus*), and black-tailed deer (*Odocoileus hemionus*)*. According to the California Department of Fish & Game, the Property provides deer habitat for the non-migratory Camp Beale Herd of the Mother Lode Deer Management Unit, and may be part of the winter range for the migratory Blue Canyon deer herd.

Blue oak woodland and savannah provides preferred habitat for gopher snakes (*Pituophis catenifer*), red-tailed hawks (*Buteo jamaicensis*)*, mourning doves (*Zenaida macroura*), western kingbirds (*Tyrannus verticalis*), violet-green swallows (*Tachycineta bicolor*), white-breasted nuthatches (*Sitta carolinensis*)*, western bluebirds (*Sialia mexicana*), European starlings (*Sturnus vulgaris*), chipping sparrows (*Spizella passerina*), lark sparrows (*Chondestes grammacus*)*, dark-eyed juncos (*Junco hyemalis*)*, Botta's pocket gophers (*Thomomys bottae*)*, and black-tailed jackrabbits (*Lepus californicus*). Interior live oaks provide preferred habitat for Hutton's vireos (*Vireo huttoni*)*, Bewick's wrens (*Thryomanes bewickii*)*, orange-crowned warblers (*Vermivora celata*)*, and dusky-footed woodrats (*Neotoma fuscipes*). Locally uncommon species that may occur in the site's blue, interior live, or mixed oak woodlands include ring-necked snake (*Diadophis punctatus*), hairy woodpecker (*Picoides villosus*), phainopepla (*Phainopepla nitens*)*, Lawrence's goldfinch (*Carduelis lawrencei*), black bear (*Ursus americanus*), ringtail (*Bassariscus astutus*), long-tailed weasel (*Mustela frenata*), mountain lion (*Felis concolor*), and porcupine (*Erethizon dorsatum*).

Grassland patches on Big Hill are large enough to provide habitat for open-country species such as ferruginous hawks (*Buteo regalis*), prairie falcons (*Falco mexicanus*), American pipits (*Anthus* ), western meadowlarks (*Sturnella neglecta*), and California meadow voles (*Microtus californicus*).

Riparian woodlands provide habitat for garter snakes (*Thamnophis* sp.), black-chinned hummingbirds (*Archilochus alexandri*), black phoebes (*Sayornis nigricans*)*, Pacific-slope flycatchers (*Empidonax difficilis*)*, yellow-breasted chats (*Icteria virens*), several species of bats, and raccoons (*Procyon lotor*). The creeks appear to be seasonal, though there may be a small amount of perennial flow due to upstream water developments. Mosquitofish (*Gambusia* sp.)* and bullfrogs (*Rana catesbiana*)* occur in the stream just below the pond near the northeast corner, and an unidentified fish was glimpsed near the northwest corner of the property. Even if there are no perennial pools in the streams, fish may enter the Liberty Ranch streams from perennial waters either upstream or downstream of the site. Cool-water fish such as rainbow trout (*Oncorhyncus mykiss*) or pikeminnow (*Ptychocheilus grandis*) could theoretically use the streams seasonally, but access from the Bear River is probably blocked by downstream impoundments. There is hypothetical habitat for California newts (*Taricha torosa*) and foothill yellow-legged frogs, but these are unlikely.

As with the flora, rock outcrops provide shelter and structure that enhances the site's suitability for wildlife, particularly for reptiles and small mammals. These

species include western rattlesnake (*Crotalus oreganus*), turkey vulture (*Cathartes aura*), rufous-crowned sparrow (*Aimophila ruficeps*)*, and several species of bats and *Peromyscus* mice.

**Hydrology**

Water sources on the property consist of an unnamed creek, an NID fed ephemeral stream, a small drainage on the southwestern portion of the property, and two small drainages on the east side of Big Hill. There are also springs and seeps associated with rock outcroppings. The creek on the Property supports a narrow riparian habitat as does the artificially fed NID stream.

Refer to the Property Map (Attachment A-5) for a map of the approximate boundary on the Property between the Coon Creek watershed and the Bear River watershed.

**Geology**

The parent material was formed during the Mesozoic period and is volcanic and metamorphic in origin, specifically a metavolcanic flow.

**Soils**

Soils from a variety of parent materials are known to support blue oak. They are characteristically shallow, infertile, and moderately to excessively well drained. Soil texture ranges from gravelly loam through stony clay loam. Soils with extensive rock fragments in the profile commonly support blue oak. At Liberty Ranch Big Hill Preserve, the upland soil surface consists of up to 75 percent of the soil surface area covered with scattered stones and rock outcrops. The soils are classified as Auburn-Rock outcrop complex (2 to 30 percent slopes), Auburn-Sobrante silt loam (15 to 30 percent slopes), Auburn-Argonaut Complex (2 to 15 percent slopes) and Auburn-Sobrante-Rock outcrop complex (2 to 30 percent slopes) Auburn-Sobrante-Rock outcrop complex (30 to 50 percent slopes).

Refer to Attachment A-6, Soils Map, for a map of soil types on the Property and the nearby vicinity.

## Description of Scenic and Open Space Values

The scenic values of the Property as they exist at the time of this report are included in the Conservation Values of the Property. The Property is valuable as a scenic preserve due to the diversity and variety of species and topographic features that exist within its boundaries. The oak woodlands and the understory vegetation are not dense, which allows for good views within and across the Property. Within the Property, scenic values include; blue oak woodlands and associated natural communities, Coon Creek and its riparian corridor, multiple rock outcroppings and cliffs, grassy meadows, and a variety of wildlife.

Within the greater foothill region, the Property provides scenic value due to its visibility from nearby ridges and other points up to approximately 40 miles away. The higher elevations on the Property offer views of the Sacramento Valley and coastal mountains to the west, the Sutter Buttes to the northwest, and the Sierra crest to the east, as well as nearby ridges.

## Description of Public Recreational Values

The Management Plan and the Easement anticipate and allow limited public access.

Specifically, public access is anticipated and allowed by the Management Plan and the Easement for the express purpose of accessing a future trail (or trails) through the Property, for generally passive recreational public use. The Landowner and PLT propose to dedicate a trail easement to Placer County for the purposes of creating one or more public trails. See "Trails" in the Management Plan for more information.

Public access for other activities on the Property may be allowed by mutual agreement between PLT and the Landowner, provided it does not interfere with or negatively impact the goals of this Plan, and the Conservation Values as defined in the Easement.

## Description of Public Safety Values

Currently, the Property contains no significant public safety values.

## Description of Existing Man-Made Elements

Man-made elements on the Property are not necessarily included in the Conservation Values of the Easement, but they are included here as documentation of the baseline condition and attributes of the Property at the time of the recordation of the Easement.

The only man-made structures on the Property are roads. Big Hill Road is a private road entering the Property at a locked gate on the northern portion of the eastern property line; it is a paved road that transects the northern portion of the Property, heading generally east-west. New Hope School Road is a private road that crosses the southwest corner of the Property; it is a dirt road. There are several newly regraded "farm roads" running through the property (for exact position see Attachment A-8). There is also evidence of earlier roadways in the area near the northern creek, but these roads have grown over with grasses and other understory vegetation to the point that bare earth is no longer visible.

There are no residential or other structures on the Property, and no canals or irrigation structures. Placer Land Trust and the Landowner anticipate the creation of a Homesite Reserve Area. After the Homesite Reserve Area is established, additional photopoints will be added to ensure that homesite development and associated activities are limited to the Homesite Reserve Area.

# IV. Project Summary and Acknowledgements

## Communications Timeline

The following is an overview of the chronology of relevant communications among PLT, the Landowner, and other relevant parties during the investigation, planning, and implementation of this conservation easement project.

December 2005
Realtors Skip Outman and Peter Nixon informed Jeff Darlington, PLT's Executive Director, that the property was listed for sale by the Landowner (represented by trustee H. Robert Freiheit).

January 2006
Mr. Darlington visited the property on January 6 with representatives from Placer County's "Placer Legacy" program, and performed a preliminary assessment of the property's conservation values.

February 2006
Loren Clark from Placer Legacy met with Mr. Darlington, Mr. Freiheit and his real estate agent Mr. Outman on February 3. Mr. Darlington and members of PLT's Project Selection Committee met onsite with Mr. Freiheit on February 3, and toured portions of the property. Mr. Freiheit expressed his interest in seeing the property preserved through a conservation transaction with PLT on February 7. On February 22, PLT's Board of Directors resolved to pursue the project and all necessary funding.

March 2006
During March, limited discussions were held between the parties regarding the nature of the conservation easement. During this time, the property remained on the market and Mr. Freiheit was still considering selling fee title to any interested buyer.

April 2006
Mr. Darlington contacted Mr. Freiheit on April 3 to formally express PLT's interest in purchasing a conservation easement, also reporting that PLT had received interest from a number of funders. At this time, Mr. Freiheit was entertaining an offer from a potential buyer to purchase the property in fee for approximately $1.7 million. Mr. Freiheit agreed to allow PLT some time to present a project proposal, and subsequently rejected the fee title offer from the other buyer. PLT began work on the relevant documents (conservation easement, management plan, and baseline documentation report) in early April. PLT President Bob Cooley-Gilliom and other members of PLT's Project Selection Committee visited the property on April 10. On April 20, PLT's Board of Directors resolved to submit grant applications for State funding for the project. PLT began applying for grant funding from the California Wildlife Foundation, the Sierra Nevada Cascade Conservation Grant Program, and the Wildlife Conservation Board (among other sources) in late April. Mr. Freiheit took Mr. Darlington and members of PLT's Project Selection Committee around portions of the property via ATV on April 24. Also

on April 24, Mr. Freiheit submitted a written letter of intent to PLT and potential funders, expressing his desire to sell PLT a conservation easement over 313 of the 321 acres of the property. PLT at its own expense commissioned an appraisal of the property and the draft conservation easement by appraiser Jim Oakham in late April. PLT presented draft copies of the conservation easement and management plan to Mr. Freiheit and his attorney Paul Aronowitz in mid-April, and received comments from them in late April. Mr. Darlington then forwarded a draft copy of these documents to Mr. Oakham at the end of April for his appraisal purposes.

May-June 2006

PLT received a written funding pledge of $410,000 from the California Wildlife Foundation on May 4. PLT continued to work on the relevant project documents with Mr. Freiheit and Mr. Aronowitz throughout May and June, and PLT continued to work on solicitation of project endorsements and potential funding.

July-August 2006

PLT received a Notice of Exemption from CEQA from Placer County, for the purchase of the conservation easement. At the request of Mr. Darlington, Mr. Freiheit provided a preliminary title report and other property information to PLT in late July, including marking on a map three potential Homesite Reserve Areas. PLT received a preliminary appraisal report from Mr. Oakham on July 11. The preliminary report suggested that the fair market value of the easement would be less than $1 million, and Mr. Freiheit informed PLT that this would not be sufficient for the easement sale. Mr. Darlington and Mr. Freiheit, with the input of Mr. Aronowitz and Mr. Oakham, worked together to add further restrictions in the easement, notably including a clear dedication of a public trail across the property. Mr. Darlington, Mr. Freiheit and Mr. Outman met with Placer Legacy representative on July 14 to discuss parameters of the public trail.

September-October 2006

With the consensus of Mr. Freiheit and Mr. Aronowitz, Mr. Darlington submitted updated information to Mr. Oakham in early September for his final appraisal report. On September 27, the Sierra Nevada Cascade Conservation Grant Program announced that it would fund the Freiheit conservation easement purchase in the amount of $600,000. Discussions continued regarding the details of trail use, homesite development and location, and other issues.

November 2006

PLT received the final appraisal report from Mr. Oakham on Nov. 14, indicating that fair market value of the conservation easement is $1.3 million. Mr. Darlington sent a copy of the appraisal report to Mr. Freiheit on Nov. 17.

December 2006 – February 2007

In early December, Mr. Darlington informed Mr. Freiheit of the overall status of the project, prior to both individuals being out for the holiday season. The parties agreed to get back in touch in mid-January after the holidays. In January and February, the parties continued discussions regarding the details of trail use, homesite development and

location, and other issues. On February 15, the Wildlife Conservation Board publicly announced that it would fund the Liberty Ranch conservation easement purchase in the amount of $235,000.

March 2007

Mr. Darlington and Mr. Freiheit met on March 7 to discuss the latest versions of the easement and management plan, including input from respective legal counsel. At the end of March, Placer County provided PLT with a written pledge of $315,000 in funding for the easement purchase, partly in exchange for an IOD for a future public trail on the property in keeping with the easement and management plan. On March 31, Mr. Darlington requested a copy of the existing grazing lease on the property and a copy of the Freedom Trust incorporation document from Mr. Aronowitz and/or Mr. Freiheit.

April 2007

On April 4, Mr. Darlington delivered a draft purchase and sale agreement to Mr. Freiheit and Mr. Aronowitz, soliciting comment. On site visits to the property in mid and late April, in preparation of the Baseline Documentation Report, PLT observed road grading and clearing activity that caused concern with regards to the conservation values of the property. On April 25, Mr. Aronowitz provided edits to the relevant projects documents to Mr. Darlington, including a new plan to have a "floating" and non-contiguous Homesite Reserve Area, with irrigation and an additional road (driveway) potentially outside of the Homesite Reserve Area. On April 26, Placer Title Company provided an updated preliminary title report to the parties. At the end of April, PLT obtained independent legal review of the various project documents and the latest edits from Mr. Aronowitz.

May 2007

Mr. Darlington expressed PLT's concerns regarding the road grading and clearing actives to Mr. Freiheit and Mr. Aronowitz on May 1. At this time, Mr. Darlington also provided PLT's reaction to the latest edits from Mr. Aronowitz, and requested a map showing the proposed Homesite Reserve Area. On May 17, Mr. Freiheit attended the PLT Board of Directors meeting in Auburn to express his regrets over the road grading/clearing, which was done by a contractor who did not adhere to Mr. Freiheit's direction. Mr. Freiheit also expressed his interest in continuing to work together with PLT to complete the easement project. At the end of May, PLT provided some advice to Mr. Freiheit regarding restoration of the graded/cleared road areas.

June-July 2007

On June 1, Mr. Darlington visited the property and noted that the disturbed ground around the new domestic well had been leveled and cleaned up. Mr. Darlington, Mr. Aronowitz, and Mr. Freiheit worked together to finalize the project documents, with input from project funders and the PLT Board of Directors (which approved the final project documents on July 26, 2007). At the time of the publication of this report, the final documents were being reviewed by all parties, and the recordation of the conservation easement was expected to occur in September 2007.

## Baseline Documentation Report Preparation

Portions of this Baseline Documentation Report were prepared by the following individuals:

- Joselin Matkins, Stewardship Coordinator, Placer Land Trust, has over 10 years experience in ecology. She has experience writing various biological reports from cavity nesting bird surveys and stream pebble counts, to vegetative plot sampling and GIS analysis. She holds an undergraduate degree in Environmental, Population, and Organismal Biology from University of Colorado, and a master's degree in Forest Science from the Oregon State University.
- Mehrey Vaghti, is an ecologist acting as an independent contractor for Placer Land Trust. Ms. Vaghti is a self-employed vegetation and restoration ecologist. For the past nine years she has been involved with vegetation community data collection, classification and mapping throughout California, including Suisun Marsh, Sacramento River, Pt. Reyes National Seashore, San Francisco Bay Delta, and Sierra Nevadan Meadows. She also has two years experience in vegetation restoration, and one year of experience working for land trusts. She earned her M.S. from U.C. Davis in Restoration Ecology and holds a B.S. in Environmental Biology & Management, also from U.C. Davis.
- Brian Williams, Biologist & President, Williams Wildland Consulting Inc., independent contractor for Placer Land Trust. Mr. Williams has over 10 years of experience as a wildlife biologist and botanist in Placer County. He has authored multiple publications on the birds of Placer County, is conducting ongoing research projects on the county's herpetofauna, and has botanized the valley and foothills for several years, including during rare plant surveys in Placer County's oak woodlands. Mr. Williams has a B.S. in Biology from Saint Mary's College and an M.S. in Biological Conservation from CSU Sacramento.
- Jeff Darlington, Executive Director, Placer Land Trust. Mr. Darlington has five years experience assessing and acquiring properties and projects for land conservation purposes, including the creation of baseline documentation reports, conservation easements, and land/habitat management plans. Mr. Darlington coordinated the creation of this report.

The following individuals provided information that was helpful in the creation of this report, through site visits, observations, map creation, and other knowledge/assistance:

- Katy Sater, Stewardship Assistant, Placer Land Trust
- Loren Clark, Assistant Director, Placer County Planning Department.
- Edmund Sullivan, biologist and Planner, Placer County Planning Department.
- Dale Whitmore, Associate Wildlife Biologist, California Dept. of Fish & Game.

## Acknowledgements of Grantor and Grantee

This Baseline Documentation Report is an accurate representation of the "Property", the "Preserve" and the "Conservation Values" as defined in the Easement at the time of the conveyance of the Easement.

Signed,

for **PLACER LAND TRUST (Easement Holder)**

Jeff Darlington, Executive Director, Placer Land Trust — Date 8/16/07

Joselin Matkins, Stewardship Coordinator, Placer Land Trust — Date 8·16·07

**OTHER REPORT PREPARERS**

Melirey Vaghn, Ecologist/Independent Contractor — Date 08·16·07

Brian Williams, Biologist/Independent Contractor — Date 8/10/07

for **FREEDOM TRUST (Landowner)**

H. Robert Freiheit
Trustee, Freedom Trust — Date: 9/18/07

Denise Ann Freiheit
Trustee, Freedom Trust — Date: 9-18-07

# V. Attachments

A. Maps
- A-1. Regional Map
- A-2. Site and Aerial Map
- A-3. Topographic Map
- A-4. Land Cover Map
- A-5. Hydrology/ Watershed Map
- A-6. Soils Map
- A-7. Improved Roads Map
- A-8. Photopoint Map
- A-9. Photopoint Description

B. Species List

C. Photographs

D. Title Report

E. Monitoring Instructions

F. Placer Land Trust Board of Director's Resolution

## Attachment A-1: Regional Map

**THIS PAGE CONTAINS PICTURES AND/OR CHARTS THAT PLACER COUNTY RECORDER CANNOT SCAN.**

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**PLACER LAND TRUST**
**11521 BLOCKER DRIVE, SUITE 100**
**AUBURN, CA 95603**

## Attachment A-2: Site and Aerial Map

## Attachment A-3: Topographic Map

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## Attachment A-4: Land Cover Map

## Attachment A-5: Hydrology/Watershed Map

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## Attachment A-6: Soil Map

**Attachment A-7: Improved Roads Map**

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## Attachment A-8. Photopoint Map

Additional photopoints will be added once the Homesite Reserve Area is defined to ensure that the Conservation Values of areas of the Preserve surrounding the Homesite Reserve Area are not encroached upon and/or negatively impacted by activities taking place within the Homesite Reserve Area.

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# Attachment A-9. Photopoint Description

*Photos taken by Joselin Matkins and Katy Sater on March 28, 2007*

| Photo ID | Sub ID | Bearing (°) | Declinated Bearing (°) | Bearing (direction) | Coordinates | Notes &/or Description |
|---|---|---|---|---|---|---|
| 1 | A | 262 | 245 | W | 10 S 0659991/ UTM 4316555 | SE corner w/ Taylor and trails. |
| 1 | B | 334 | 317 | N | | Looking up trail and fence running N/S |
| 1 | C | 108 | 91 | E | | Looking back into Taylor- property corner |
| 2 | A | 152 | 135 | S | 10 S 0659958/ UTM 4316677 | Road and trail meet, photopoint looking S down trail |
| 2 | B | 200 | 183 | SW | | Looking up new road grade |
| 2 | C | 322 | 305 | N | | looking N down road |
| 3 | A | 82 | 65 | E | 10 S 0659884/ UTM 4316910 | across road cut |
| 3 | B | 152 | 135 | S | | up road |
| 3 | C | 8 | 351 | N | | down road |
| 4 | A | 90 | 73 | E | 10 S 0659778/ UTM 4317160 | along road cut |
| 4 | B | 0 | 343 | N | | |
| 5 | A | 145 | 128 | SW | 10 S 0659271/ UTM 4317205 | |
| 5 | B | 277 | 260 | W | | |
| 5 | C | 2 | 345 | N | | |
| 5 | D | 45 | 28 | NE | | taken 10 feet south of GPS for 21 end of road |
| 6 | A | 0 | 343 | N | 10 S 0659157/ UTM 4317341 | Along western fence midway of property |
| 6 | B | 58 | 41 | E | | |
| 6 | C | 148 | 131 | S | | |
| 7 | A | 340 | 323 | N | 10 S 0659163/ UTM 4317076 | |
| 7 | B | 113 | 96 | E | | |
| 7 | C | 188 | 171 | S | | |
| 8 | A | 334 | 317 | N | 10 S 0659341/ UTM 4316961 | |
| 9 | A | 353 | 336 | N | 10 S 0659334/ UTM4316924 | cross road |
| 9 | B | 62 | 45 | E | | |
| 9 | C | 160 | 143 | S | | |
| 9 | D | 260 | 243 | W | | |
| 10 | A | 338 | 321 | N | 10 S 0659409/ UTM 4316803 | Road N |
| 11 | A | 58 | 41 | NE | 10 S 0659173/ UTM 4316781 | |
| 11 | B | 114 | 97 | E | | |
| 11 | C | 164 | 147 | S | | |
| 11 | D | 290 | 273 | W | | |
| 11 | E | 6 | 349 | N | | |
| 12 | A | 280 | 263 | W | 10 S 0659214/ UTM 4316658 | In upper clearing |
| 12 | B | 0 | 343 | N | | Towards well site |
| 12 | C | 54 | 37 | NE | | across drainage and road |
| 12 | D | 118 | 101 | E | | down drainage |
| 13 | A | 136 | 119 | SE | 10 S 0659373/ UTM 4316589 | down road |
| 13 | B | 246 | 229 | SW | | into drainage |
| 13 | C | 310 | 293 | NW | | Road and trail meet, photopoint looking S down trail |
| 13 | D | 0 | 343 | N | | towards property |
| 14 | A | 6 | 349 | N | 10 S 0659642/ UTM 4317719 | parking area |
| 14 | B | 74 | 57 | E | | |
| 14 | C | 136 | 119 | SE | | |

*(continued)*

| Photo ID | Sub ID | Bearing (°) | Declinated Bearing (°) | Bearing (direction) | Coordinates | Notes &/or Description |
|---|---|---|---|---|---|---|
| 15 | A | 64 | 47 | NE | 10 S 0659685/ UTM 4317547 | Near culvert pump and where road work ends |
| 15 | B | 138 | 121 | SE | | |
| 15 | C | 320 | 303 | NW | | |
| 16 | A | 280 | 263 | W | 10 S 0659841/ UTM 4317507 | Big Hill Road |
| 16 | B | 330 | 313 | N | | Clearing |
| 17 | A | 190 | 173 | S | 10 S 0659839/ UTM 4317504 | Big Hill |
| 18 | A | 216 | 199 | SW | 10 S 0659692/ UTM 04317634 | view of unimproved road and Big Hill |
| 18 | B | 288 | 271 | W | | View towards Big Hill road |
| 18 | C | 350 | 333 | N | | View up unimproved road leading to Big Hill |
| 18 | D | 60 | 43 | NE | | View into property toward N |
| 19 | A | 24 | 7 | N | 10 S 0659746/ UTM 4317645 | View of BHR and star thistle |
| 20 | A | 110 | 93 | E | 10 S 0659748/ UTM 4317643 | |
| 20 | B | 250 | 233 | SW | | |
| 20 | C | 346 | 329 | N | | |
| 21 | A | 180 | 163 | S | 10 S 0659974/ UTM 4316897 | Along Eastern boundary |
| 21 | B | 270 | 253 | W | | up fence looking into property |
| 21 | C | 350 | 333 | N | | down fence |
| 22 | A | 176 | 159 | S | 10 S 0659803/ UTM 4317806 | on road |
| 22 | B | 255 | 238 | W | | |
| 23 | A | 54 | 37 | NE | 10 S 0659921/ UTM 4317972 | |
| 23 | B | 242 | 225 | W | | |
| 24 | A | 160 | 143 | S | 10 S 0659941/ UTM 4318154 | corner bottom |
| 24 | B | 258 | 241 | W | | |
| 25 | A | 76 | 59 | E | 10 S 0659138/ UTM 4318148 | other bottom corner |
| 25 | B | 162 | 145 | S | | |
| 26 | A | 90 | 73 | E | 10 S 065512/ UTM 4316624 | Road S |
| 26 | B | 250 | 233 | W | | more of the road |
| 26 | C | 324 | 307 | N | | |

# Attachment B. Species List

The following species were observed at Taylor Ranch on and prior to February 22, 2007, by biologist Brian Williams and Placer Land Trust staff. Very few plants had reproductive structures by this date, so plants were identified almost exclusively by vegetative characteristics only. Plants were identified based on prior experience; none were subjected to identification keys.

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Trees** | | | |
| *Aesculus californica* | California buckeye | Native | |
| *Alnus rhombifolia* | white alder | Native | common along streams |
| *Ficus carica* | edible fig | Invasive | at least one along stream |
| *Fraxinus* sp. | ash sp. | Native | probable Oregon ash (but possible foothill ash) near creek |
| *Quercus douglasii* | blue oak | Native | |
| *Quercus kelloggii* | black oak | Native | several on NE-facing slopes |
| *Quercus lobata* | valley oak | Native | overstory dominant along stream |
| *Quercus wislizenii* var. *wislizenii* | interior live oak | Native | |
| *Pinus ponderosa* | Ponderosa pine | Native | at least one tree on N slope |
| *Pinus sabinana* | foothill pine | Native | |
| *Prunus* sp. | ornamental tree? | ? | small trees along creek |
| *Salix laevigata* | red willow | Native | most common willow |
| **Shrubs & Vines** | | | |
| *Amelanchier utahensis* (prob.) | Utah serviceberry (prob.) | Native | near creek in NW area |
| *Ceanothus cuneatus* | buckbrush | Native | |
| *Cercis occidentalis* | redbud | Native | |
| *Heteromeles arbutifolia* | toyon | Native | |
| *Keckiella breviflora* var. *glabrisepala* (prob.) | gaping keckiella (prob.) | Native | mostly rock outcrops along slopes |
| *Lonicera interrupta* | chaparral honeysuckle | Native | |
| *Philadelphus lewisii* (poss.) | mock orange (poss.) | Native | young leaves possibly seen near creek |
| *Rhamnus tomentella ssp. tomentella* | hoary coffeeberry | Native | |
| *Rhamnus ilicifolia* | holly-leaf redberry | Native | |
| *Rhus trilobata* | skunkbrush | Native | a few patches near creeks |
| *Ribes roezlii* var. *roezlii* (prob.) | Sierra gooseberry | Native | 3 plants seen, one on Big Hill |
| *Rosa* sp. (prob. *californica*) | wild rose sp. (prob. California) | Native | uncommon near streams |
| *Rubus discolor* | Himalayan blackberry | Invasive | a dominant along streams |
| *Rubus ursinus* | blackberry | Native | along stream |
| *Salix lasiolepis* | arroyo willow | Native | rare along stream |
| *Toxicodendron diversilobum* | western poison-oak | Native | |
| *Vitis californica* | California wild grape | Native | |

*(continued)*

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Ferns & Horsetails, &** | | | |
| *Adiantum jordanii* | California maidenhair | Native | N-facing slopes near stream |
| *Azolla* sp. | mosquito-fern sp. | Native | NE stream below pond |
| *Equisetum telmateia* ssp. *braunii* | giant horsetail | Native | along stream (thick stems, >20 teeth) |
| *Pallea mucronata* var. *mucronata* | common bird's-foot fern | Native | S-facing rocky slopes |
| *Pentagramma triangularis ssp. triangularis* | gold-backed fern | Native | |
| *Polypodium calirhiza* | intermediate polypody | Native | |
| **Grasses** | | | |
| *Briza minor* | lesser quaking-grass | Invasive | |
| *Bromus diandrus* | ripgut brome | Invasive | |
| *Bromus hordeaceus* | soft chess | Invasive | |
| *Bromus sterilis* | poverty brome | Invasive | |
| *Cynosurus echinatus* | hedgehog dogtail | Invasive | typically dominant in BOW |
| *Elymus glaucus* ssp. *glaucus* | blue wildrye | Native | |
| *Elymus multisetus* | big squirreltail | Native | scattered in BOW |
| *Melica californica* | California melic | Native | |
| *Muhlenbergia rigens* | deergrass | Native | near streams |
| *Nassella* sp. (prob. *pulchra*) | needlegrass (prob. purple) | Native | scattered in BOW |
| *Piptatherum miliaceum* (prob.) | smilograss (prob.) | | near stream |
| *Taeniatherum caput-medusae* | medusa-head | Invasive | mostly in grassland |
| *Vulpia myuros* var. *hirsuta* | foxtail fescue | Invasive | |
| **Sedges, Rushes, Lilies, & Monocots** | | | |
| *Brodiaea* sp. | brodiaea sp. | Native | |
| *Carex* sp. | sedge | Native | along stream |
| *Calochortus albus* (prob.) | white globe-lily (prob.) | Native | |
| *Chlorogalum pomeridianum* var. *pomeridianum* | wavy-leaved soap-plant | Native | |
| *Cyperus* sp. | nutsedge sp. | ? | along stream |
| *Dichelostemma capitatum* | blue dicks | Native | |
| *Erythronium multiscapoideum* | Sierra fawn-lily | Native | shady slopes |
| *Juncus effusus* var. *pacificus* | Pacific rush | Native | |
| *Lilium pardalinum* ssp. ? | lily (leopard or shasta) | Native | near stream |

*(continued)*

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Sedges, Rushes, Lilies, & Monocots** | | | |
| *Luzula comosa* var. *subsessilis* | sessile wood-rush | Native | |
| *Sisyrinchium bellum* | blue-eyed grass | Native | |
| *Triteleia laxa* | Ithuriel's-spear | Native | |
| **Other** | | | |
| *Achillea millefolium* | yarrow | Native | |
| *Amsinkia menziesii* var. *menziesii* | Menzies' fiddleneck | Native | |
| *Amsinkia menziesii* var. *intermedia* | common fiddleneck | Native | |
| *Aphanes occidentalis* | western lady's-mantel | Native | |
| *Artemisia douglasiana* | mugwort | Native | uncommon along stream |
| *Asclepias fascicularis* | narrow-leaved milkweed | Native | one plant seen near stream |
| *Asclepias* sp. (*cordifolia* or *speciosa*) | milkweed sp. | Native | one leafing out at rock outcrop |
| *Athysanus pusillus* | petty athysanus | Native | many at parking area |
| *Calandrinia ciliata* | redmaids | Native | uncommon |
| *Calystegia occidentalis* ssp. *occidentalis* | western morning-glory | Native | |
| *Cardamine oligosperma* | western bittercress | Native | |
| *Carduus pycnocephalus* | Italian thistle | Invasive | mostly around rock outcrops |
| *Centaurea solstitialis* | yellow star-thistle | Invasive | |
| *Cerastium glomeratum* | sticky mouse-eared chickweed | Invasive | |
| *Chamomilla suaveolens* | common pineapple-weed | Invasive | roads |
| *Cirsium vulgare* | bull thistle | Invasive | creek near east boundary |
| *Claytonia parviflora* ssp. *parviflora* | small-flowered miner's-lettuce | Native | |
| *Claytonia perfoliata* | common miner's lettuce | Native | |
| *Clarkia* sp. | clarkia sp. | Native | |
| *Collinsia heterophylla* | Chinese-houses | Native | partly shady slopes |
| *Collinsia sparsiflora* var. *collina* | foothill collinsia | Native | partly shady slopes |
| *Dodecatheon hendersonii* | shooting-star | Native | |
| *Draba verna* var. *verna* | spring whitlow-grass | Native | |
| *Epilobium* sp. (prob.) | willowherb (prob.) | ? | |
| *Eriophyllum lanatum* | wooly sunflower | Native | |
| *Erodium cicutarium* | red-stemmed filaree | Invasive | |
| *Erodium brachycarpum* | short-fruited stork's-bill | Invasive | dominant |
| *Eschscholzia caespitosa* | foothill-poppy | Native | west-facing rocky slope |
| *Euphorbia spathulata* | warty spurge | Native | |
| *Euthamia occidentalis* (prob.) | western goldenrod (prob.) | Native | near stream |

*(continued)*

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Other** | | | |
| *Filago* sp. | filago sp. | Native | |
| *Galium aparine* | cleavers | Native | |
| *Galium porrigens* var. *tenue* | narrow-leaved climbing bedstraw | Native | scattered in BOW and elsewhere |
| *Galium parisiense* (prob.) | wall bedstraw (prob.) | Invasive | |
| *Geranium dissectum* | cut-leaved geranium | Invasive | common in BOW |
| *Geranium molle* | dove's-foot geranium | Invasive | a dominant in open BOW |
| *Hypericum calycinum* | Aaron's-beard | Invasive | one patch |
| *Hypericum perforatum* | Klamathweed | Invasive | uncommon |
| *Hypocharis glabra* (prob.) | smooth cat's-ear (prob.) | Invasive | |
| *Lathyrus* sp. (prob.) | pea (prob.) | ? | |
| *Leontodon taraxacoides* spp. *longirostris* (prob.) | long-beaked hawkbit (prob.) | Invasive | |
| *Lepidium nitidum* var. *nitidum* | shining pepper-grass | Native | |
| *Lepidium perfoliatum* | round-leaved peppergrass | Invasive | parking area |
| *Linanthus bicolor* | bicolored linanthus | Native | BOW |
| *Lithophragma bolanderi* | Bolander's woodlandstar | Native | mostly rock outcrops |
| *Lupinus bicolor* | bicolored lupine | Native | |
| *Lupinus pachylobus* | big-podded lupine | Native | |
| *Marah fabaceus* var. *agrestis* | California man-root | Native | one at rock outcrop |
| *Melissa officinalis* | bee-balm | Invasive | uncommon near streams |
| *Mentha* sp. | mint sp. | Invasive | along stream |
| *Micropus californicus* ssp. *californicus* | slender cottonweed | Native | |
| *Monardella* sp. (prob. *sheltonii*) | coyote-mint (prob. Shelton's) | Native | |
| *Montia fontana* ssp. *chondrosperma* | water montia | Native | roadside ditch |
| *Navarretia* sp. | navarretia sp. | Native | old stems in BOW; prob. >1 species |
| *Nemophila heterophylla* | variable-leaved nemophila | Native | shaded area, often at rock outcrops |
| *Nemophila menziesii* ssp. *menziesii* | baby-blue-eyes | Native | uncommon |
| *Pectocarya pusilla* | little pectocarya | Native | grassy flats |
| *Perideridia* sp. | yampah sp. | Native | |
| *Petrorhagia dubia* | grass-pink | Invasive | |
| *Phacelia cicutaria* var. *cicutaria* | caterpillar phaclelia | Native | rocky slopes and outcrops |
| *Phlox gracilis* | slender phlox | Native | |
| *Phoradendron villosum* | oak mistletoe | Native | |

*(continued)*

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Other** | | | |
| *Plagiobothrys fulvus* | fulvous popcorn-flower | Native | |
| *Plagiobothrys nothofulvus* | common popcorn-flower | Native | |
| *Plectritis* sp. (prob.) | plectritis sp. (prob.) | Native | |
| *Potentilla* sp. (prob.) | potentilla sp. (prob.) | Native | |
| *Pterostegia drymarioides* | pterostegia | Native | one cluster at large W-facing rock outcrop |
| *Ranunculus muricatus* | prickle-seeded buttercup | Invasive | moist grassy areas |
| *Ranunculus occidentalis* var. *occidentalis* | western buttercup | Native | widely scattered |
| *Rumex pulcher* | fiddle dock | Invasive | |
| *Rumex* sp. | dock sp. | Invasive | |
| *Sanicula bipinnata* | poison sanicle | Native | common and widespread in BOW |
| *Sanicula bipinnatifida* | purple sanicle | Native | |
| *Sanicula crassicaulis* | Pacific sanicle | Native | |
| *Saxifraga californica* | California saxifrage | Native | shady areas in BOW |
| *Saxifraga integrifolia* (prob.) | Hooker's saxifrage (prob.) | Native | scattered in open BOW |
| *Scandix pecten-veneris* | shepherd's-needle | Invasive | |
| *Senecio vulgaris* | common grounsel; old-man-in-the-spring | Invasive | |
| *Sherardia arvensis* | field-madder | Invasive | fairly common in BOW |
| *Soliva sessilis* | lawn burweed | Invasive | |
| *Sonchus sp.* | sow-thistle | Invasive | |
| *Stachys* sp. (prob.) | hedge-nettle sp. (prob.) | Native | along stream |
| *Stellaria media* (prob.) | common chickweed (prob.) | Invasive | |
| *Stellaria pallida* | pallid starwort | Invasive | common under oaks |
| *Tauchia hartwegii* | Hartweg's tauchia | Native | rocky slopes |
| *Taraxacum officinale* | common dandelion | Invasive | one plant near creek |
| *Thysanocarpus curvipes* | clasping-leaved fringepod | Native | |
| *Torilis* sp. | hedge-parsley sp. | Invasive | |
| *Trifolium depauperatum* var. *depauperatum* | dwarf cowbag clover | Native | moist grassland |
| *Trifolium dubium* | little hop clover | Invasive | common |
| *Trifolium hirtum* | rose clover | Invasive | |
| *Trifolium subterraneum* | subterranean clover | Invasive | mostly in grassland |
| *Triphysaria eriantha* ssp. *eriantha* | johnnytuck | Native | |
| *Triphysaria pusilla* | dwarf owl-clover | Native | |
| *Uropappus lindleyi* (poss.) | silverpuffs (poss.) | Native | |
| *Vicia sativa* ssp. *sativa* | garden vetch | Invasive | |
| *Vicia villosa* ssp. *varia* | winter vetch | Invasive | |
| *Viola douglasii* | Douglas' violet | Native | moist grassy area on Big Hill |
| *Xanthium strumarium* | cocklebur | Native | creek near east boundary |

*(continued)*

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Fish** | | | |
| *Gambusia* sp. | mosquitofish | Invasive | NE stream below pond E of preserve; in pool with bullfrogs |
| unid. fish | unid. fish | ? | larger species seen near NW corner |
| **Amphibians** | | | |
| *Pseudacris regilla* | Pacific treefrog | Native | adults heard and seen |
| *Rana catesbiana* | bullfrog | Invasive | NE stream below pond E of preserve; one small frog was captured to rule out *R. boylii.* |
| **Repiles** | | | |
| *Sceloporus occidentalis* | western fence lizard | Native | |
| *Elgaria multicarinata* | southern alligator lizard | Native | |
| **Birds** | | | |
| *Cathartes aura* | turkey vulture | Native | |
| *Buteo jamaicensis* | red-tailed hawk | Native | |
| *Meleagris gallipavo* | wild turkey | Invasive | |
| *Calypte anna* | Anna's hummingbird | Native | |
| *Melanerpes formicivorous* | acorn woodpecker | Native | |
| *Picoides nuttallii* | Nuttall's woodpecker | Native | |
| *Sayornis nigricans* | black phoebe | Native | |
| *Empidonax difficilis* | Pacific-slope flycatcher | Native | one early arrival calling along creek |
| *Vireo huttoni* | Hutton's vireo | Native | singing among the live oaks |
| *Baeolophus inornatus* | oak titmouse | Native | |
| *Psaltriparus inornatus* | bushtit | Native | |
| *Sitta canadensis* | white-breasted nuthatch | Native | |
| *Troglodytes aedon* | house wren | Native | |
| *Thryomanes bewickii* | Bewick's wren | Native | |
| *Regulus calendula* | ruby-crowned kinglet | Native | |
| *Polioptila* | blue-gray gnatcatcher | Native | one in BOW |
| *Phainopepla nitens* | phainopepla | Native | one male along NE creek |
| *Vermivora celata* | orange-crowned warbler | Native | several singing |
| *Dendroica coronata* | yellow-rumped warbler | Native | |
| *Pipilo maculatus* | spotted towhee | Native | |
| *Aimophila ruficeps* | rufous-crowned sparrow | Native | |
| *Chondestes grammacus* | lark sparrow | Native | |
| *Zonotrichia leucophrys* | white-crowned sparrow | Native | |
| *Zonotrichia atricapilla* | golden-crowned sparrow | Native | |
| *Junco hyemalis* | dark-eyed junco | Native | |
| *Carduelis psaltria* | lesser goldfinch | Native | |
| *Carduelis tristis* | American goldfinch | Native | |

*(continued)*

| SCIENTIFIC NAME | COMMON NAME | Native | STATUS |
|---|---|---|---|
| **Mammals** | | | |
| *Canis latrans* | coyote | Native | seen, scat |
| *Sus scrofa* | feral pig | Invasive | diggings |
| *Odocoileus hemionus* | black-tailed deer | Native | seen, tracks, scat |
| *Sciurus griseus* | western gray squirrel | Native | gnawed pine cones |
| *Thomomys bottae* | Botta's pocket gopher | Native | diggings |
| **Other Animal Taxa** | | | |
| freshwater clams | | ? | sandy deposits along stream; most eaten by mammal, possibly raccoon? |

**Attachment C. Photos**

**THIS PAGE CONTAINS PICTURES AND/OR CHARTS THAT PLACER COUNTY RECORDER CANNOT SCAN.**

**THIS ORIGINAL PAGE CAN BE VIEWED AT THE OFFICE OF**

**PLACER LAND TRUST**
**11521 BLOCKER DRIVE, SUITE 100**
**AUBURN, CA 95603**

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**11521 BLOCKER DRIVE, SUITE 100**
**AUBURN, CA 95603**

# Attachment E. Monitoring Instructions

Note: The monitoring instructions in this Report are for the purposes of PLT's perpetual obligation to protect the Conservation Values. These are included here for reference only. PLT's monitoring protocol for this Preserve is contained in the Management Plan.

## Summary

Monitoring of this Preserve shall be done at least annually by PLT. Monitoring shall be more frequent during construction in the Homesite Reserve Area, during construction of the public trail, and at other times when warranted by conditions or activities on the Preserve. PLT will also allow the State of California to monitor the Preserve not less than once every three years to ensure that the purpose of the State of California's funding contribution is being carried out.

Monitoring will be challenging because the Preserve is large and steep, and the vegetation is often very dense. Monitors should protect against poison oak and sticker-producing grasses (which are abundant), watch out for rattlesnakes, and be prepared for physically demanding hiking on steep terrain, including traversing thick brush.

Geographic information systems (GIS) and hand-held geographic positioning system (GPS) units are recommended to aid in locating photo points. Digital, black/white, and color photography shall be used in monitoring, as well as textual notes. Aerial photographs may be used to document large-scale changes over time. If possible, a member from the previous year's monitoring visit(s) should attend the following year, to aid in locating points and providing a frame of reference.

## Purposes

The purposes of monitoring the Preserve are, in order of importance:

1. To assure the Conservation Values are protected.
2. To prevent, document and/or correct any violations of the Easement.
3. To provide a record for legal defense of the Easement.
4. To build a rapport with the landowner.

## Instructions

1. Schedule the monitoring visit and discuss the Easement and Conservation Values with the Landowner.
2. Review the Easement, Baseline Documentation, and the previous monitoring report.
3. Walk the boundaries of the Preserve.
4. Take photographs at the photo points.
5. Document current conditions.
6. Identify and document any possible violations.
7. Create a monitoring report, and send a copy to the Landowner.
8. Follow up with the Landowner to correct any Easement violations.

## Attachment F. Placer Land Trust Board of Director's Resolution

**Placer Land Trust Board of Directors' Resolution 04202006B**

**WHEREAS**, Placer Land Trust's Project Selection Committee has favorably assessed the conservation values of the Freiheit Big Hill Property,

**WHEREAS**, Placer Land Trust has received funding pledges sufficient to protect and steward this property in perpetuity, and

**WHEREAS**, the Freiheit Big Hill Property is an ideal project for Placer Land Trust's Bear River Watershed Protection Program and is in keeping with the Trust's stated goals and mission;

**NOW THEREFORE**, Placer Land Trust authorizes its Executive Director to commission an appraisal, submit grant applications, and negotiate the acquisition of fee title or a conservation easement in order to permanently protect the Freiheit Big Hill Property, subject to due diligence, receipt of adequate funds, legal review, and approval of the final transaction by Placer Land Trust's Board of Directors.

Motion made by: Mara Bresnick Seconded by: Linda Raimondi

Ayes: 8

Nos: 0

Abstain: 0

Absent: 1

Approved and Adopted this 20th day of April, 2006, in accordance with Placer Land Trust's Bylaws.

Signed,

Mark Perry, Secretary
Placer Land Trust
11521 Blocker Drive, Suite 100
Auburn, CA 95603

# Attachment D. Title Report

ENCLOSED ON THE FOLLOWING PAGES

# Attachment E. Monitoring Instructions

Note: The monitoring instructions in this Report are for the purposes of PLT's perpetual obligation to protect the Conservation Values. These are included here for reference only. PLT's monitoring protocol for this Preserve is contained in the Management Plan.

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## Purposes

The purposes of monitoring the Preserve are, in order of importance:

1. To assure the Conservation Values are protected.
2. To prevent, document and/or correct any violations of the Easement.
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## Instructions

1. Schedule the monitoring visit and discuss the Easement and Conservation Values with the Landowner.
2. Review the Easement, Baseline Documentation, and the previous monitoring report.
3. Walk the boundaries of the Preserve.
4. Take photographs at the photo points.
5. Document current conditions.
6. Identify and document any possible violations.
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Motion made by: Mara Bresnick Seconded by: Linda Raimondi

Ayes: 8

Nos: 0

Abstain: 0

Absent: 1

Approved and Adopted this 20th day of April, 2006, in accordance with Placer Land Trust's Bylaws.

Signed,

Mark Perry, Secretary
Placer Land Trust
11521 Blocker Drive, Suite 100
Auburn, CA 95603

**Project Name: Liberty Ranch**

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

PLACER, County Recorder
JIM MCCAULEY
DOC- 2012-0113579-00

TUESDAY, NOV 27, 2012 15:04:00
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02239604
clkd1mlfj1/JC/1-10

## COUNTY OF PLACER

# OFFER OF DEDICATION

## MULTI-PURPOSE TRAIL EASEMENT

For the receipt of one dollar ($1.00) or other good and valuable consideration,
**H. Robert Freiheit and Denise Ann Freiheit as Trustees of the Freedom Trust created May 25, 1994**
the undersigned GRANTOR(S), hereby irrevocably offers for dedication to the **County of Placer, State of California,** an Easement for Multi-Purpose Trail purposes for non-motorized ingress and egress together with the right of construction, maintenance, and all appurtenances pertaining thereto upon, over, under and across all that real property situated in the County of Placer, State of California, bounded and described as follows:

*(Any and all interest in the property conveyed by grantor to the County of Placer pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the grantor.)*

**(See Attached Exhibits "A" & "B")**

GRANTOR(S) – H. ROBERT FREIHEIT AND DENISE ANN FREIHEIT AS TRUSTEES OF THE FREEDOM TRUST CREATED MAY 25, 1994

Dated this 15 Day of November 2012,

H. Robert Freiheit Trustee
Sign name

H. Robert Freiheit, Trustee
Print name and title

Denise Ann Freiheit Trustee
Sign name

Denise Ann Freiheit, Trustee
Print name and title

See following page for Acknowledgement

# ACKNOWLEDGEMENT

State of California
County of Placer

On November 15, 2012 before me, RB Ronnye A. Bechte, Notary Public
H. Robert Freiheit ~~and Denise Ann Freiheit~~ (name, title),
personally appeared H. Robert Freiheit and Denise Ann Freiheit
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

R. BECHTEL
COMM. #1926641
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
My Commission Expires 02/25/2015

(Seal) Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)
  TITLE(S)
  COMPANY
- ☐ PARTNER(S)
  PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  PRINCIPAL(S)
- ☐ TRUSTEE(S)
  TRUST
- ☐ OTHER
  TITLE(S)
  ENTITY(IES) REPRESENTATIVE

## CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, but reserves the right to do so in the future, pursuant to authority conferred by Ordinance 5152-B.

DATE

SIGN NAME

PRINT NAME AND TITLE

## ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20_____, from _____

To the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002, and the Grantee consents to the recordation thereof by it's duly authorized agent.

DATE

SIGN NAME

PRINT NAME AND TITLE

GOVERNMENT CODE 27361.7

I certify under penalty of perjury that the notary seal on the document to which this statement is attached reads as follows:

Name of Notary R. Bechtel
Date Commission Expires 2-25-15 Commission # 1926641
County of Commission Placer Mfg. I.D. # CCS1
State of Commission California

11-27-12 Auburn, California
Date and Place

Signature (Firm name, if any)

**EXHIBIT "A"**

A portion of the property conveyed to Robert Freiheit and Denise Ann Freiheit, Trustees of the Freedom Trust created May 25, 1994 by that Grant Deed recorded as Document No. 2004-0110064, Official Records of Placer County, situated in the East Half of Section 11, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, described as follows:

A Fifteen (15.00) foot wide strip of land, lying seven and a half (7.50) feet on each side of the following described centerline:

Beginning at a point on the West line of said Freiheit property, being a point on the North-South centerline of said Section 11 from which, the North Quarter Corner of said Section 11 bears North 00°41'57" West, 625.02 feet;

Thence from said Point of Beginning, leaving said West line, along the following one hundred nineteen (119) courses and distances:

1. South 59°26'58" East, 64.10 feet;
2. South 40°56'42" East, 79.83 feet;
3. South 71°00'39" East, 99.79 feet;
4. South 55°12'35" East, 118.46 feet;
5. South 12°28'58" East, 52.10 feet;
6. North 77°22'08" East, 44.40 feet;
7. South 68°31'39" East, 66.03 feet;
8. South 46°20'30" East, 64.99 feet;
9. South 34°36'31" East, 79.83 feet;
10. South 40°26'44" East, 186.83 feet;
11. South 53°57'10" East, 71.68 feet;
12. South 50°48'08" East, 470.86 feet;
13. South 47°43'33" East, 253.72 feet;
14. South 88°42'21" East, 89.17 feet;
15. South 37°06'05" East, 56.26 feet;
16. South 63°56'19" East, 65.26 feet;
17. South 40°59'06" East, 36.41 feet;
18. South 61°22'10" East, 24.35 feet;
19. South 76°46'38" East, 29.05 feet;
20. South 30°21'40" East, 77.88 feet;
21. South 02°27'43" East, 43.04 feet;
22. South 42°51'31" East, 88.35 feet;
23. North 83°09'45" East, 12.16 feet;
24. South 58°15'34" East, 59.64 feet;
25. North 70°14'37" East, 72.67 feet;
26. South 77°13'32" East, 83.33 feet;
27. South 51°35'09" East, 67.09 feet;

28. South 75°09'07" East, 19.72 feet;
29. North 39°34'50" East, 46.40 feet;
30. North 29°25'41" East, 59.90 feet;
31. North 78°13'12" East, 65.40 feet;
32. North 62°43'16" East, 108.82 feet;
33. North 49°41'12" East, 73.12 feet;
34. South 80°58'20" East, 53.48 feet;
35. South 12°08'35" West, 15.29 feet;
36. South 75°26'44" West, 78.98 feet;
37. South 35°28'10" West, 68.32 feet;
38. South 80°41'16" West, 95.66 feet;
39. South 17°19'28" West, 102.96 feet;
40. South 02°45'16" East, 52.80 feet;
41. South 22°12'53" East, 117.23 feet;
42. South 35°59'24" East, 75.62 feet;
43. South 08°19'16" East, 52.81 feet;
44. South 36°23'45" East, 100.74 feet;
45. South 42°54'38" East, 84.58 feet;
46. South 39°17'25" East, 215.59 feet;
47. South 21°40'38" East, 125.75 feet;
48. South 45°25'53" East, 44.43 feet;
49. South 08°44'17" East, 63.37 feet;
50. South 76°56'24" East, 28.56 feet;
51. South 13°08'47" East, 46.50 feet;
52. South 42°56'19" East, 38.36 feet;
53. South 11°48'39" East, 33.73 feet;
54. South 00°44'58" East, 75.39 feet;
55. South 31°18'43" East, 29.41 feet;
56. South 11°48'12" East, 32.05 feet;
57. South 45°01'17" East, 36.22 feet;
58. South 66°20'13" East, 74.55 feet;
59. South 55°10'55" East, 48.01 feet;
60. South 01°25'24" East, 88.02 feet;
61. South 14°16'25" East, 54.12 feet;
62. South 32°05'33" East, 70.91 feet;
63. South 02°02'50" West, 65.82 feet;
64. South 17°40'27" West, 25.16 feet;
65. South 17°10'45" East, 38.73 feet;
66. South 02°43'23" West, 74.98 feet;
67. South 03°40'19" East, 93.33 feet;
68. South 02°13'38" West, 93.62 feet;
69. South 06°45'52" West, 35.20 feet;

70. South 07°17'32" East, 60.20 feet;
71. South 12°23'47" West, 48.20 feet;
72. South 07°21'36" East, 39.00 feet;
73. South 17°47'48" West, 12.27 feet;
74. South 16°54'26" East, 34.81 feet;
75. South 00°23'51" West, 26.08 feet;
76. South 35°43'45" West, 31.82 feet;
77. South 15°31'11" West, 26.97 feet;
78. South 60°24'53" East, 20.60 feet;
79. South 06°02'30" East, 36.52 feet;
80. South 16°34'59" West, 47.09 feet;
81. North 25°37'42" West, 25.34 feet;
82. North 60°58'20" West, 35.80 feet;
83. South 32°05'54" West, 19.42 feet;
84. South 22°32'15" East, 79.02 feet;
85. South 22°17'58" East, 100.92 feet;
86. South 40°04'35" West, 21.84 feet;
87. North 54°01'19" West, 59.57 feet;
88. North 15°30'09" West, 35.15 feet;
89. North 41°48'55" West, 21.02 feet;
90. North 65°33'59" West, 64.99 feet;
91. South 02°19'08" East, 18.00 feet;
92. South 47°41'46" East, 18.45 feet;
93. North 87°29'14" East, 9.40 feet;
94. South 23°35'56" East, 36.79 feet;
95. North 51°14'00" East, 17.39 feet;
96. South 12°21'54" East, 140.89 feet;
97. South 21°42'19" East, 75.51 feet;
98. South 33°19'01" East, 31.16 feet;
99. South 01°10'40" East, 39.55 feet;
100. South 43°59'16" East, 37.16 feet;
101. South 00°31'22" East, 31.84 feet;
102. South 31°47'38" West, 13.51 feet;
103. South 05°19'32" West, 14.07 feet;
104. South 08°17'54" East, 25.72 feet;
105. South 02°26'04" West, 19.87 feet;
106. South 40°20'06" West, 10.83 feet;
107. South 09°08'36" East, 27.27 feet;
108. South 15°33'46" West, 82.21 feet;
109. South 20°23'19" East, 71.38 feet;
110. South 12°43'39" West, 40.22 feet;
111. South 19°51'01" East, 17.22 feet;

112. South 01°36'04" East, 56.97 feet;
113. South 02°55'14" East, 42.10 feet;
114. South 36°50'17" West, 21.08 feet;
115. South 01°12'10" East, 39.71 feet;
116. South 15°43'10" East, 53.33 feet;
117. South 00°00'13" East, 43.59 feet;
118. South 07°46'06" West, 65.86 feet; and
119. South 08°01'10" East, 59.58 feet to a point on the south line of said Freiheit property, being the south line of said Section 11, from which, the southeast corner of said Section 11 bears North 89°40'33" East, 16.37 feet.

The sidelines of said strip are to be prolonged or shortened to terminate westerly on the West line of said Freiheit property, and to terminate southerly on the South line of said Freiheit property.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: OCTOBER 18, 2012

LICENSED LAND SURVEYOR
LESLIE AMSBERRY
No. 6584
Exp. 12-31-2013
STATE OF CALIFORNIA

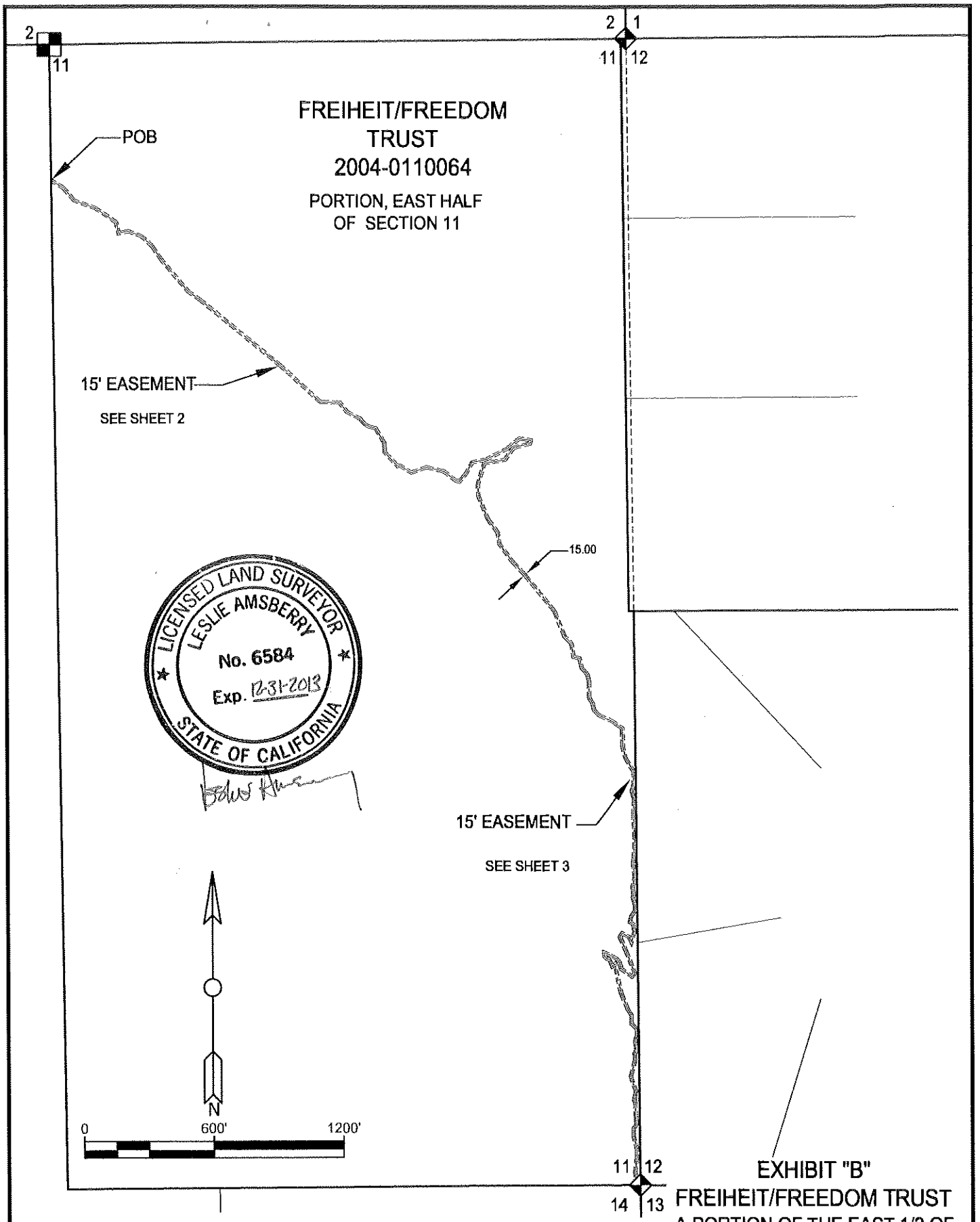



EXHIBIT "B"
FREIHEIT/FREEDOM TRUST
A PORTION OF THE EAST 1/2 OF
SECTION 11, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA

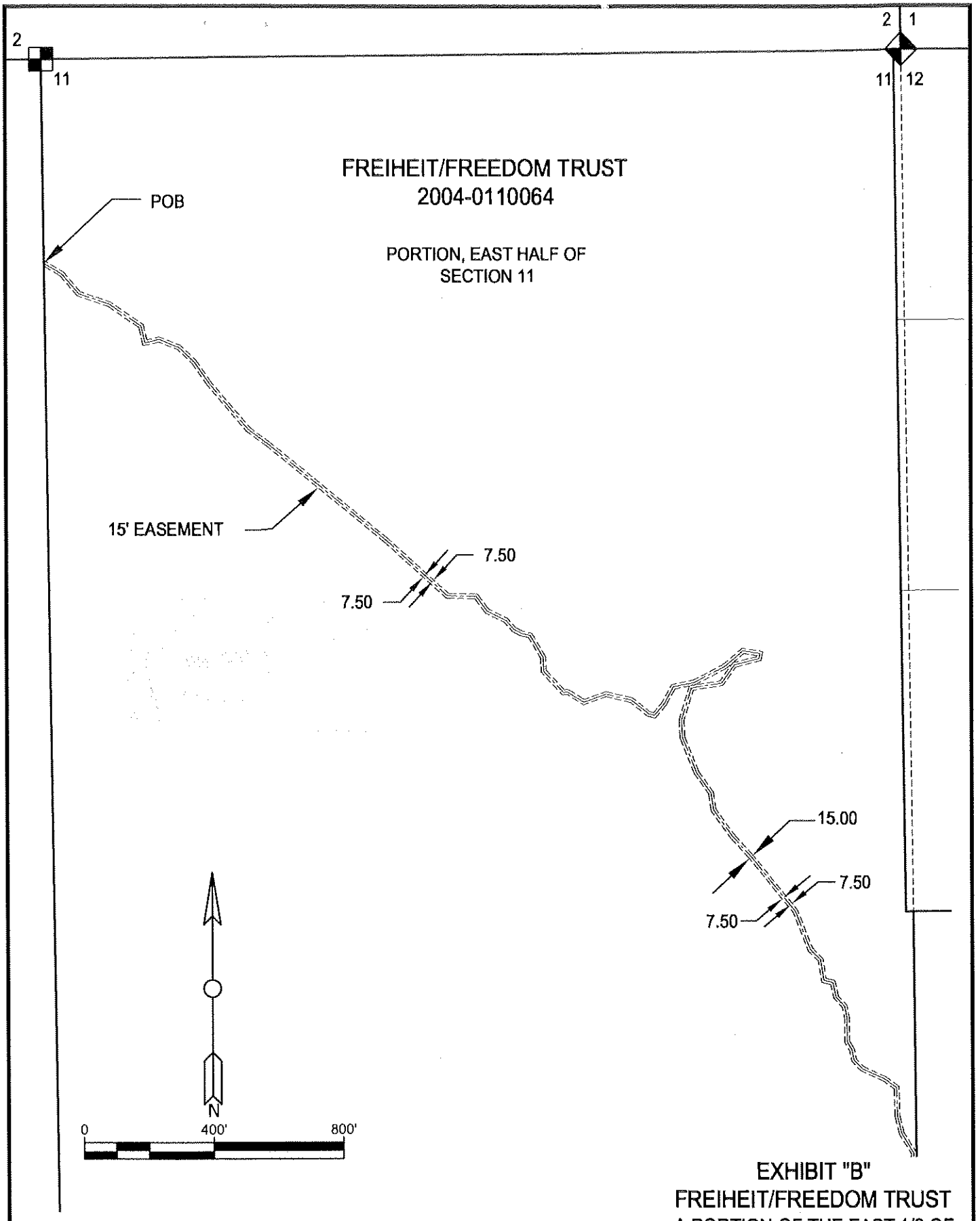



EXHIBIT "B"
FREIHEIT/FREEDOM TRUST
A PORTION OF THE EAST 1/2 OF
SECTION 11, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA

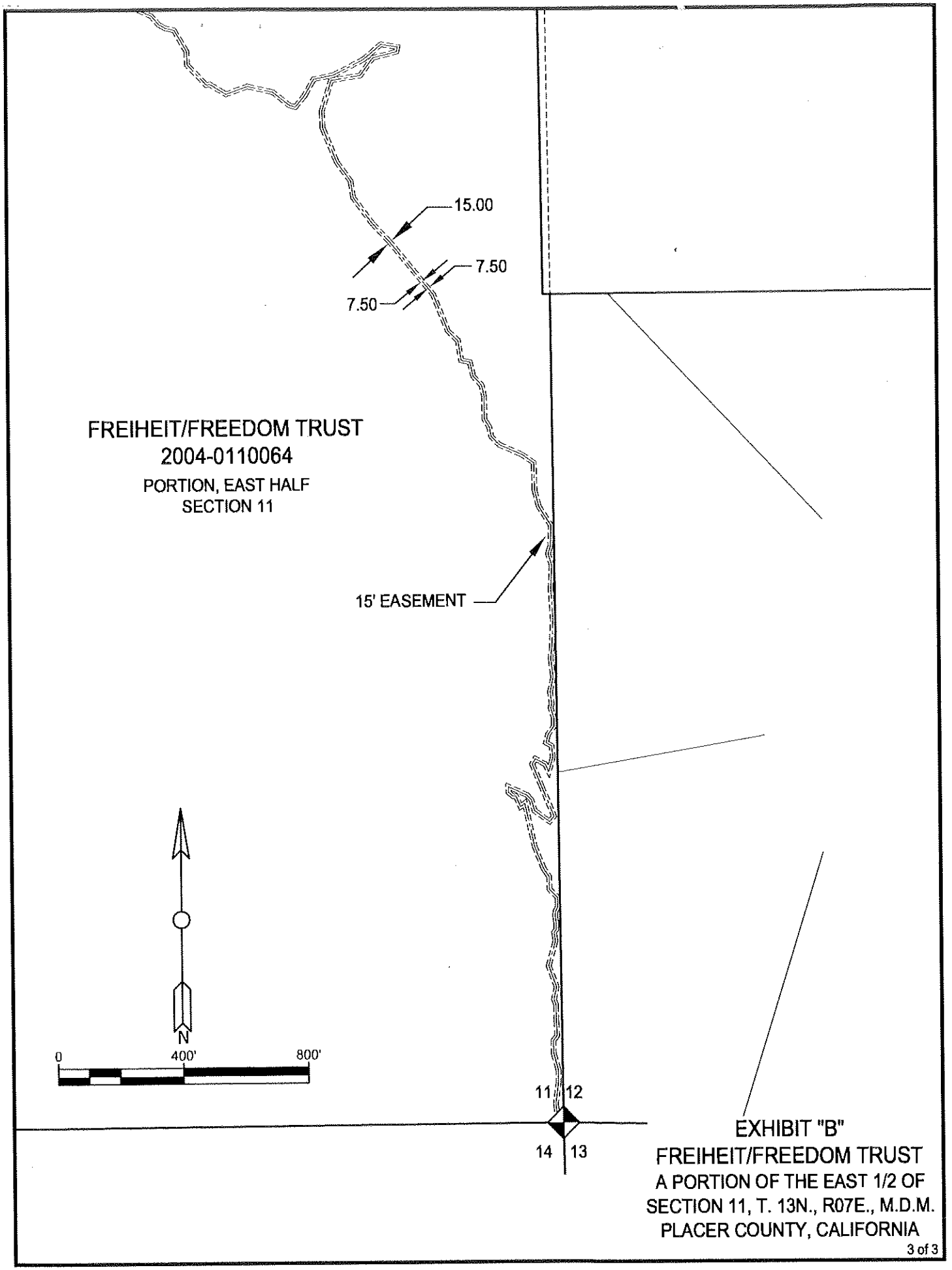



EXHIBIT "B"
FREIHEIT/FREEDOM TRUST
A PORTION OF THE EAST 1/2 OF
SECTION 11, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA

## ACCEPTANCE

This is to certify that the interest in real property described in this Offer of Dedication for a Multi-Purpose Trail Easement is hereby accepted on behalf of the public by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to the authority conferred by Resolution No. 2007-83 as approved by the County Board of Supervisors on March 20, 2007, and the Grantee consents to the recordation thereof by its duly authorized agent.

Signature

Dated 11/26/12

James Durfee
Director of Facility Services

10

(3)

RECORDING REQUESTED BY
PLACER TITLE COMPANY

**Project Name: Johnston Property**

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

PLACER, County Recorder
JIM MCCAULEY
DOC- 2012-0074901-00
PLACER TITLE - RECORDING
FRIDAY, AUG 17, 2012 9:23:42

| | | | | | |
|---|---|---|---|---|---|
| MIC | $0.00 | AUT | $0.00 | SBS | $0.00 |
| ERD | $0.00 | RED | $0.00 | * | $0.00 |
| ADD | $0.00 | | | | |

Ttl Pd $0.00 Rcpt # 02215644
clkdlmlfj1/GV/1-6

## COUNTY OF PLACER

# OFFER OF DEDICATION

## MULTI-PURPOSE TRAIL EASEMENT

For the receipt of one dollar ($1.00) or other good and valuable consideration,

**Placer Land Trust, a California non-profit public benefit corporation**

**the undersigned GRANTOR(S), hereby irrevocably offers for dedication to the County of Placer, State of California,** an Easement for Multi-Purpose Trail purposes for non-motorized ingress and egress together with the right of construction, maintenance, and all appurtenances pertaining thereto upon, over, under and across all that real property situated in the County of Placer, State of California, bounded and described as follows:

*(Any and all interest in the property conveyed by grantor to the County of Placer pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the grantor.)*

**(See Attached Exhibits "A" & "B")**

Dated this 26 Day of June, 2012,

GRANTOR(S) : PLACER LAND TRUST
a CA non-profit public benefit corporation

Sign name

Fred Yeager, President
Print name and title

Sign name

Gregg McKenzie, Treasurer
Print name and title

See following page for Acknowledgement

Revised 3/09

W

# ACKNOWLEDGEMENT

State of California }
County of Placer }

On 6/25/12 before me, Nancy L Koschyk Notary (name, title), personally appeared Frederic Kayes Geiger who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NANCY L. KOSCHYK
COMM. # 1855052
NOTARY PUBLIC-CALIFORNIA
PLACER COUNTY
MY COMM. EXP. JUN. 21, 2013

(Seal)

Signature

**CAPACITY CLAIMED BY SIGNER**

- ☑ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)
  - TITLE(S)
  - COMPANY
- ☐ PARTNER(S)
  - PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  - PRINCIPAL(S)
- ☐ TRUSTEE(S)
  - TRUST
- ☐ OTHER
  - TITLE(S)
  - ENTITY(IES) REPRESENTATIVE

## CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, but reserves the right to do so in the future, pursuant to authority conferred by Ordinance 5152-B.

DATE _____ SIGN NAME _____

PRINT NAME AND TITLE _____

## ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20_____, from _____

To the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002, and the Grantee consents to the recordation thereof by it's duly authorized agent.

DATE _____ SIGN NAME _____

PRINT NAME AND TITLE _____

NANCY L. KOSCHYK
COMM. # 1855052
NOTARY PUBLIC-CALIFORNIA
PLACER COUNTY
MY COMM. EXP. JUN. 21, 2013

CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

State of California )

)ss.

County of PLACER )

On JULY 27, 2012, before me, DEBORAH K. YUE, Notary Public, personally appeared GREGG A. MCKENZIE, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Deborah K Yue (Seal)

DEBORAH K. YUE

DEBORAH K. YUE
COMM. # 1859964
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. AUG. 30, 2013

**EXHIBIT "A"**

A portion of the property conveyed to Johnston and Boyd by that Grant Deed recorded as Document No. 2012-0026045, Official Records of Placer County, situated in Section 11, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, more particularly described as follows:

A one hundred (100.00) foot wide strip of land lying fifty (50.00) feet on each side of the following described centerline:

Beginning at a point on the North line of said Section 11, from which, the North Quarter Corner of said Section 11 bears North 89°49'32" East, 835.64 feet;

Thence from said Point of Beginning, leaving said Northerly line, along the following four (4) courses and distances:

1. South 58°09'20" East, 461.38 feet;
2. South 46°12'22" East, 350.00 feet;
3. South 62°42'24"East, 198.37 feet; and
4. South 42°32'26" East, 32.74 feet to a point on the east boundary of said Johnston property, being the East line of the East Half of the Northwest Quarter of said Section 11, from which said North Quarter corner bears North 00°41'57" West, 603.33 feet.

The sidelines of said strip are to be prolonged or shortened to terminate Northerly on the North line of said Section 11 and to terminate easterly on the East line of the East Half of the Northwest Quarter of said Section 11.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 5-29-2012

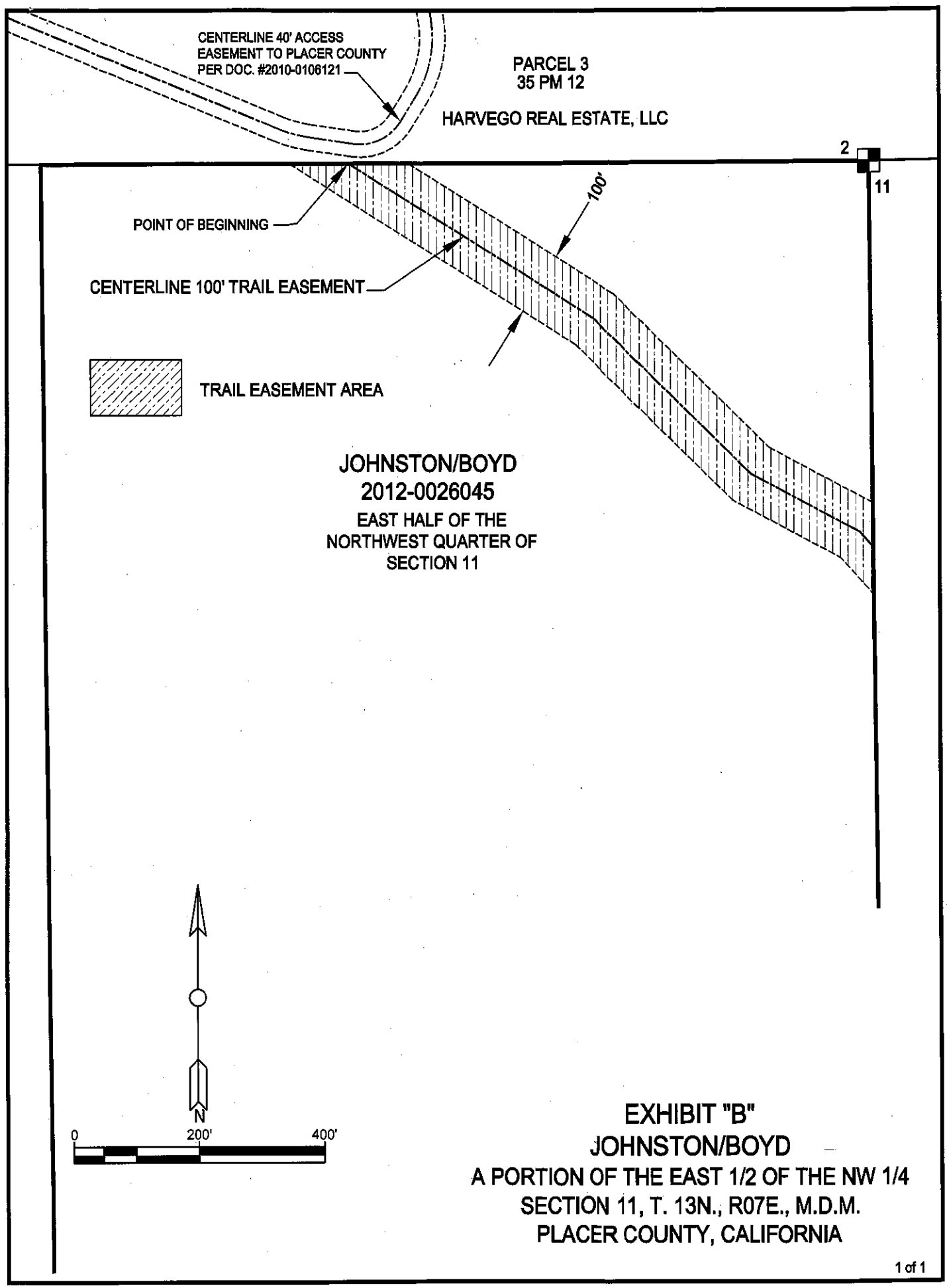



EXHIBIT "B"
JOHNSTON/BOYD
A PORTION OF THE EAST 1/2 OF THE NW 1/4
SECTION 11, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA



5

## ACCEPTANCE

This is to certify that the interest in real property described in this Offer of Dedication for a Multi-Purpose Trail Easement is hereby accepted on behalf of the public by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to the authority conferred by Resolution No. 2012-147 as approved by the County Board of Supervisors on June 19, 2012, and the Grantee consents to the recordation thereof by its duly authorized agent.

Signature

Dated JD ~~7/5/12~~ 7/3/12

James Durfee
Director of Facility Services

RECORDING REQUESTED
BY
PLACER TITLE COMPANY
**Project Name: Harvego Trail Connector**

Recording requested by and Return to:
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
(530) 886-4900
Attn: Property Manager

PLACER, County Recorder
JIM MCCAULEY
DOC- 2012-0074900-00
PLACER TITLE - RECORDING
FRIDAY, AUG 17, 2012 9:23:41
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02215644
clkdlmlfj1/GV/1-6

# COUNTY OF PLACER

# OFFER OF DEDICATION

## TRAIL EASEMENT

For the receipt of one dollar ($1.00) or other good and valuable consideration, **Harvego Real Estate, LLC, a California Limited Liability Company ("Grantor"), hereby irrevocably offers for dedication to the County of Placer, State of California ("Grantee"),** a non-exclusive one hundred eighty-eight (188) foot wide trail easement for ingress and egress, and non-motorized access for the general public, together with the right of construction, maintenance, and, as legally described in Exhibits A and B, attached.

The location of a fifteen (15) foot wide trail within the one hundred eighty-eight (188) foot wide easement area shall be more particularly located on the ground over reasonable terrain by the Grantee, subject to the consent of the Grantor whose consent will not be unreasonably withheld. By accepting this instrument, Grantee acknowledges its obligation to quitclaim to the Grantor all but a fifteen (15) foot width of this easement once the trail is located and described, but no later than three (3) years from recordation of this instrument. The maintenance and improvement of such trail and trail easement shall be the responsibility of Grantee and its successors and assigns.

Any and all interest in the property conveyed by Grantor to the County of Placer pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the Grantor.

Dated this 7th day of August, 2012

GRANTOR – Harvego Real Estate, LLC

Lloyd H. Harvego
Sign name

Lloyd H. Harvego, Manager of Harvego Enterprises, LLC
Harvego Enterprises, LLC, Manager of Harvego Real Estate, LLC

See following page for Acknowledgement

# ACKNOWLEDGEMENT

State of California

County of Placer Sacramento

On 8-7-12 before me,

Newton Li Notary Public (name, title),

personally appeared Lloyd H Harvego

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NEWTON LI
COMM. # 1841126
NOTARY PUBLIC - CALIFORNIA
SACRAMENTO COUNTY
COMM. EXPIRES MARCH 20, 2013

(Seal)

Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☐ CORPORATE OFFICER(S)

TITLE(S)

COMPANY

- ☐ PARTNER(S)

PARTNERSHIP

- ☐ ATTORNEY-IN-FACT

PRINCIPAL(S)

- ☐ TRUSTEE(S)

TRUST

- ☐ OTHER

TITLE(S)

ENTITY(IES) REPRESENTATIVE

## CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, hut reserves the right to do so in the future, pursuant to authority conferred by Ordinance 5152-B and Resolution 2012-147.

DATE

SIGN NAME

PRINT NAME AND TITLE

## ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the Offer of Dedication Trail Easement dated_____, 20_____, from Harvego Real Estate, LLC a California Limited Liability Company

To the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002 and Resolution 2012-147, and the Grantee consents to the recordation thereof by it's duly authorized agent.

DATE

SIGN NAME

PRINT NAME AND TITLE

**EXHIBIT "A"**

A portion of Parcel 3 as shown on that map filed in Book 35 of Parcel Maps, at Page 12, Official Records of Placer County, situated in Section 2, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, more particularly described as follows:

A one hundred and eighty eight (188.00) foot wide strip of land lying ninety four (94.00) feet on each side of the following described centerline:

Beginning at a point on the South boundary of said Parcel 3, being the South line of said Section 2, from which, the South Quarter Corner of said Section 2 bears North 89°49'29" East, 835.64';

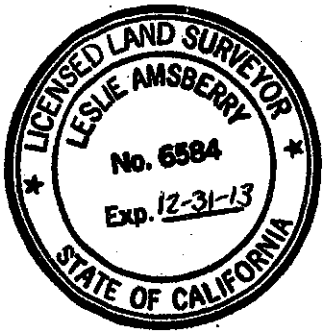
Thence from said Point of Beginning, leaving said southerly line, North 00°10'31" West, 32.65' more or less to a point on the centerline of that certain 40' ingress, egress and utility easement (Easement 3) of that Reciprocal Easement Agreement described in Document No. 2010-0106119, Official Records of Placer County.

The sidelines of said strip are to be prolonged or shortened to terminate southerly on the South boundary of said Parcel 3 and to terminate northerly on the southerly line of said 40' easement.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603




Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 7-18-2012

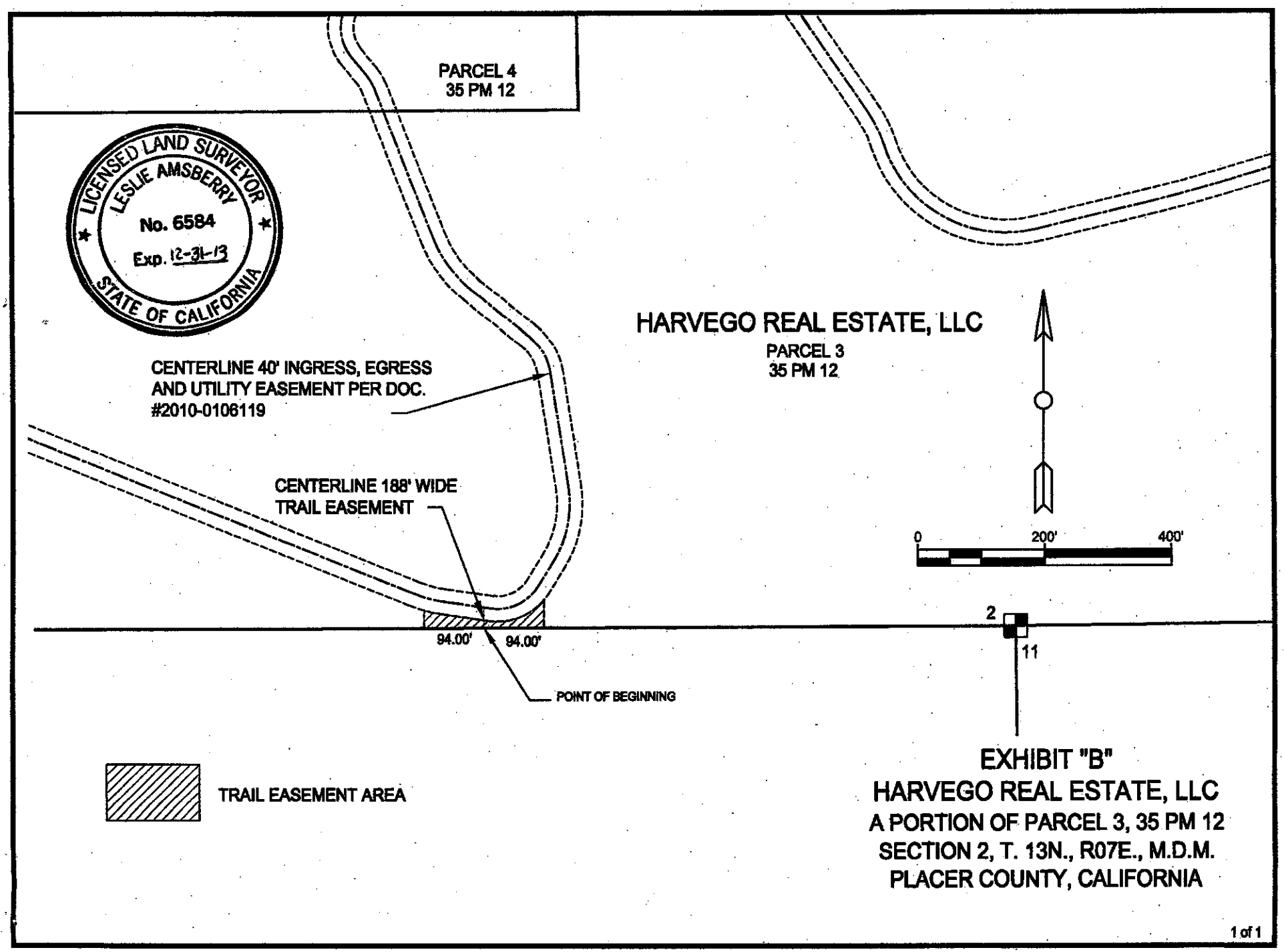



EXHIBIT "B"
HARVEGO REAL ESTATE, LLC
A PORTION OF PARCEL 3, 35 PM 12
SECTION 2, T. 13N., R07E., M.D.M.
PLACER COUNTY, CALIFORNIA

## ACCEPTANCE

This is to certify that the interest in real property described in this Offer of Dedication for a Multi-Purpose Trail Easement is hereby accepted on behalf of the public by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to the authority conferred by Resolution No. 2012-147 as approved by the County Board of Supervisors on June 19, 2012, and the Grantee consents to the recordation thereof by its duly authorized agent.

Signature

Dated 8/16/12

James Durfee
Director of Facility Services

(6)

RECORDING REQUESTED
BY
PLACER TITLE COMPANY

Recording Requested by
And When Recorded Return to

Placer County
Department of Facility Services
11476 C Avenue
Auburn, CA 95603

PLACER, County Recorder
JIM MCCAULEY
DOC- 2012-0074904-00
PLACER TITLE - RECORDING
FRIDAY, AUG 17, 2012 9:23:45

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| ERD | $0.00 | RED | $0.00 | * | $0.00 |
| ADD | $0.00 | | | | |

Ttl Pd $0.00 Rcpt # 02215644
clkdlmlfj1/GV/1-12

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**APN 026-061-055-000**

**FUNDING AND EASEMENT AGREEMENT**
**Johnston Property**

This FUNDING AND EASEMENT AGREEMENT ("Agreement") is made and entered into the 26 th day of June, 2012 by and between the County of Placer, a political subdivision of the State of California ("County") and the Placer Land Trust, a California non-profit public benefit corporation ("PLT").

WHEREAS, PLT is, or soon will be, the owner in fee title of that certain real property in Placer County, California, commonly known as the "Johnston Property", consisting of approximately 80 acres, as more particularly described on the attached Exhibit A (the "Property").

WHEREAS, PLT is purchasing the Property for the purposes of preserving open space and conservation values and further pursuant to conditions of grant monies from, among others, the California Department of Transportation Environmental Enhancement & Mitigation Program (hereafter, the "Preservation and Conservation Values").

WHEREAS, the County wishes to contribute funds in the amount of $125,000.00 (hereafter the "County Contribution") to support PLT's purchase of the Property, in consideration for PLT's commitment to maintain the Preservation and Conservation Values, and in consideration of PLT's commitment to grant to the County certain trail rights as described herein.

WHEREAS, the parties wish to memorialize their agreement regarding the County Contribution.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. County Contribution. County agrees to deposit into escrow opened at Placer Title Company, Escrow Order Number 102-36699, Attn.: Debbie Yue, Escrow Officer, Placer Title Company, 193 Fulweiler Avenue, Auburn, CA 95603, Telephone Number (530) 885-7722, Facsimile (530) 885-1592 ("Escrow Holder"),

within five (5) working days following the Effective Date of the Agreement, or by such later date as PLT may direct, the amount of One Hundred Twenty-Five Thousand Dollars ($125,000.00).

PLT agrees to use the County Contribution towards the fee title purchase price of the Property. If the Property does not close escrow resulting in fee title ownership by PLT within sixty (60) days following the Effective Date of the Agreement, PLT shall direct the Escrow Holder to return the County Contribution to the County.

2. Acknowledgement of County Contribution. PLT agrees to acknowledge in general terms as appropriate the County Contribution on the primary Property sign(s). PLT Agrees to acknowledge in general terms as appropriate the County Contribution and solicit input from the County for relevant promotional materials or other literature PLT may produce relating to the Property.

3. Preservation and Conservation Values; Assignment. The parties acknowledge that the County Contribution is made in material reliance on the perpetual management of the Property for the purposes stated herein and that the Preservation and Conservation Values will be performed and managed by a qualified organization. The parties further agree that the Property may be assigned, sold, transferred, exchanged or otherwise conveyed by PLT only to an organization that is a qualified organization at the time of transfer under Section 170(h) of the Internal Revenue Code (or any successor provision then applicable), and authorized to acquire and hold fee title for the conservation purposes set forth under California Civil Code Sections 815 through 816, inclusive, (or any successor provision then applicable) or the laws of the United States. Such qualified organization must be willing and financially able to assume all of the obligations and responsibilities of PLT. As a condition of such transfer, the successor grantee shall require that the Preservation and Conservation Values that this Agreement is intended to advance continue to be carried out. To the extent possible under the circumstances of the transfer, PLT will give County at least sixty (60) days written notice prior to the date of transfer. The failure of PLT to give such notice shall not affect the validity of an otherwise permissible Property transfer, nor shall it impair the validity of this Agreement or limit its enforceability in any way. County shall approve the transfer of the Property to a qualified organization, which consent shall not be unreasonably withheld.

4. Trails. The parties agree and acknowledge that as a material inducement to County's contribution, PLT shall grant or cause to be granted, to County easement rights to construct, operate and assume responsibility for a non-motorized multi-use trail on the Property (the Johnston Trail) as well as access from the Johnston Trail to the existing public road easement on the adjacent real property commonly known as "Bruin Ranch Phase 2" (Trail Connector). Both easement locations are generally depicted on the attached Exhibit B.

Therefore, PLT shall deposit or cause to be deposited into escrow and instruct the Escrow Holder to cause the following documents to be recorded in the Official Records of Placer County upon close of escrow of the purchase of the Property by PLT:

a. Johnston Trail Easement - A fully executed Irrevocable Offer of Dedication(s) or other such recordable instrument(s) providing County rights to the multi-use trail easement over the Property in the location as depicted in a form approved by the County.

b. Trail Connector - A fully executed multi-use trail easement or other such recordable instrument(s), in a form approved by County providing access to that certain Easement #3 that was assigned to the County pursuant to the Assignment of Easement recorded on December 21, 2010 in the Official Records of Placer County as Document No. 2010-006121-00, ("Easement #3") .

    1) In exchange for the Trail Connector as described in Section 4.b., the County agrees to proceed with an abandonment of that certain Easement #4 that was assigned to the County pursuant to the Assignments of Easement recorded on December 21, 2010, in the Official Records of Placer County as Documents No. 2010-0106122-00 ("Easement #4"). The abandonment of Easement #4 shall be recorded concurrently with the recordation and acceptance by County of the Trail Connector.

5. No County Obligation Prior to Trail System. With the exception of the Irrevocable Offer of Dedication for the multi-use trail easement that will be granted to the County upon close of escrow for the purchase of the Property by PLT, the parties agree and acknowledge that by making the County Contribution, the County assumes no stewardship, management, or liability obligation with regards to any portion of the Property at this time. Any such County stewardship, management, and / or liability obligations shall exist only after the County accepts the Trail Easement as described in Section 4 herein.

6. Binding on Successors; Future Cooperation. This Agreement shall be binding on the parties hereto and their respective successors, heirs and assigns. This Agreement shall run with the Property and serve as an equitable servitude thereon. PLT consents to the recordation of this Agreement in the Official Records of Placer County. The parties further agree and acknowledge that their respective obligations and the mutual goals of the parties hereunder are dependent on the mutual cooperation and good faith efforts of the County and PLT. The parties therefore agree to execute such additional documents and take such other actions as may be reasonable and necessary to carry out the purposes of this Agreement.

7. Property Access by County. Upon receipt of written notice, PLT shall provide the County reasonable access to the Property to assess compliance with the terms, covenants, and conditions of this Agreement.

8. Governing Law. The parties acknowledge that this Agreement has been negotiated and entered into in the State of California. The parties agree that this Agreement shall be governed by and interpreted in accordance with laws of the State of California. Initial venue for any dispute shall be the Superior Court for the State of California, Placer County. The parties hereby waive any federal court removal and / or original jurisdiction rights that they may have.

9. Notices.

   a. "Notice" means any notice, demand, request or other communication or document to be provided under this Agreement to a PARTY to this Agreement.

   b. The Notice shall be in writing and shall be given to the PARTY at its address or facsimile number set forth below, or such other address or facsimile number as the PARTY may later specify for that purpose by Notice to the other PARTY. Each Notice shall, for all purposes, be deemed given and received:

      1. If given by facsimile, when the facsimile is transmitted to the PARTY's facsimile number specified below and confirmation of complete receipt is received by the transmitting PARTY during normal business hours or on the next business day if not confirmed during normal business hours;

      2. If hand-delivered to a PARTY against receipted copy, when the copy of Notice is receipted;

      3. If given by a nationally-recognized and reputable overnight delivery service, the day on which the Notice is actually received by the PARTY; or

      4. If given by any other means, or if given by certified mail, return receipt requested, postage prepaid, two business days after it is posted with the United States Postal Service, at the address of the PARTY specified below:

         If to PLT:

         Placer Land Trust
         11661 Blocker Drive, Suite 110
         Auburn, CA 95603
         Telephone No. (530) 887-9222
         Facsimile No. (530) 888-7720

If to the COUNTY:

County of Placer
Department of Facility Services
Mailing Address: 11476 C Avenue
Physical Address: 2855 2nd Street
Auburn, CA 95603
Attn: Property Manager
Facsimile No. (530) 886-4964

Copies on any Notice to COUNTY shall also be sent to:

County of Placer
Office of County Counsel
Attention: Rob Sandman
175 Fulweiler Avenue
Auburn, CA 95603
Facsimile No. (530) 889-4069

c. If any Notice is sent by facsimile, the transmitting PARTY as a courtesy may send a duplicate copy of the Notice to the other PARTY by regular mail. In all events, however, any Notice sent by facsimile transmission shall govern all matters dealing with delivery of the Notice, including the date on which the Notice is deemed to have been received by the other PARTY.

d. The provisions above governing the date on which a Notice is deemed to have been received by a PARTY to this Agreement shall mean and refer to the date on which a PARTY to this Agreement, and not its counsel or other recipient, to which a copy of the Notice may be sent, is deemed to have received the Notice.

e. If Notice is tendered under the provisions of this Agreement and is refused by the intended recipient of the Notice, the Notice shall nonetheless be considered to have been given and shall be effective as of the date provided in this Agreement. The contrary notwithstanding, any Notice given to either PARTY in a manner other than that provided in this Agreement that is actually received by the noticed PARTY, shall be effective with respect to such PARTY on receipt of the Notice.

IN WITNESS WHEREOF, the parties have duly executed this Agreement on the day and year first above written.

**COUNTY:** COUNTY OF PLACER

By: _____ 6/26/12
James Durfee
Director of Facility Services
Date

Approved As to Form:

By: _____ 6/26/12
County Counsel
Date

**PLT:** PLACER LAND TRUST

By: _____ 6-26-2012
Fred Yeager
President
Date

By: _____
Gregg McKenzie
Treasurer
Date 6/25/12

NOTARIAL ACKNOWLEDGEMENTS ON FOLLOWING PAGES

## LEGAL DESCRIPTION

## EXHIBIT A

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE (MBR 10226A):

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDB&M.

SAID LAND BEING SHOWN AND DESIGNATED "MBR 10226A" IN THAT CERTAIN RESOLUTION TO APPROVE A MINOR BOUNDARY ADJUSTMENT RECORDED MARCH 24, 1995, AS INSTRUMENT NO. 95-014535, OFFICIAL RECORDS.

APN 026-061-055

PARCEL TWO:

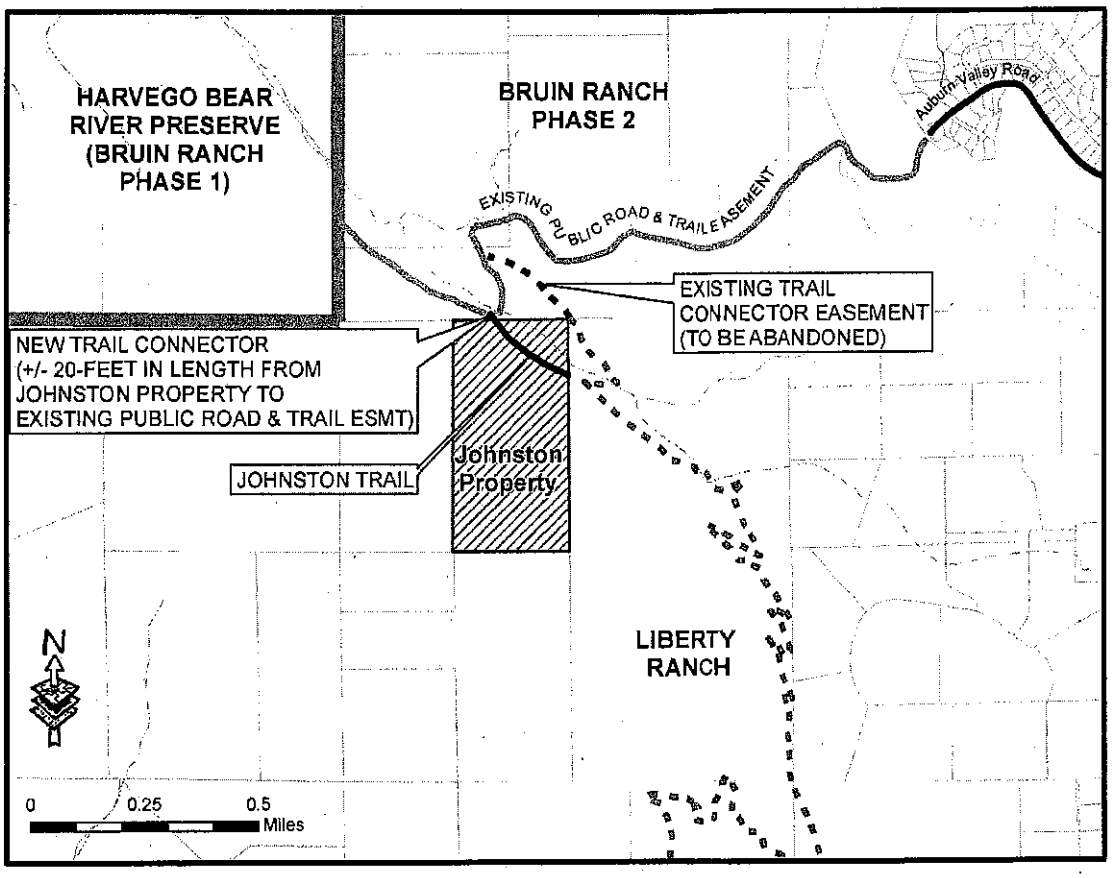
A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS 50 FEET IN WIDTH, LOCATION SUBJECT TO CHANGE AS DISCLOSED IN RIGHT OF WAY EASEMENT RECORDED FEBRUARY 3, 1977 IN BOOK 1806, AT PAGE 243, OFFICIAL RECORDS OF PLACER COUNTY.

PARCEL THREE:

A NON –EXCLUSIVE EASEMENT 50 FEET IN WIDTH, FOR INGRESS AND EGRESS AS DISCLOSED IN GRANT DEED RECORDED MARCH 24, 1995, INSTRUMENT NO. 95-014536, RECORDS OF PLACER COUNTY.

## EXHIBIT B

## Trail Easement Area



# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of Placer }

On 6/25/2012 (Date) before me, Nancy L Koschyk Notary (Here Insert Name and Title of the Officer),

personally appeared Frederic Reyes Yenger (Name(s) of Signer(s))
Greg Anthony McKenzie,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

NANCY L. KOSCHYK
COMM. # 1855052
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. JUN. 21, 2013

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Nancy L Koschyk (Signature of Notary Public)

Place Notary Seal Above

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Description of Attached Document

Title or Type of Document: Funding of Easement Agreement

Document Date: 6/25/12 Number of Pages: ____

Signer(s) Other Than Named Above: ____

### Capacity(ies) Claimed by Signer(s)

Signer's Name: ____
☐ Individual
☐ Corporate Officer — Title(s): ____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: ____

Signer Is Representing: ____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: ____
☐ Individual
☐ Corporate Officer — Title(s): ____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: ____

Signer Is Representing: ____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

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# CERTIFICATE OF ILLEGIBILITY

Government Code 27361.7

I certify under penalty of perjury under the laws of the State of California that the notary seal on the document to which this statement is attached reads as follows:

Name of Notary: Shawna Lee Howard

Date Commission Expires: April 2, 2014

Commission Number: 1884867

County of Commission: Placer

State of Commission: California

Manufacturer ID Number: NR01

Place of Execution: Auburn, CA

Signature: Shawna Howard Date: August 16, 2012

Firm Name: _____

12

RECORDING REQUESTED BY

Placer Title Company

Escrow Number: 102-36699-DY

**AND WHEN RECORDED MAIL TO**

PLACER LAND TRUST
11661 BLOCKER DRIVE, STE 110
AUBURN, CA 95603

**PLACER, County Recorder**
**JIM MCCAULEY**
**DOC- 2012-0074899-00**
PLACER TITLE - RECORDING
FRIDAY, AUG 17, 2012 9:23:40

| | | | | | |
|---|---|---|---|---|---|
| MIC | $3.00 | AUT | $3.00 | SBS | $2.00 |
| ERD | $1.00 | RED | $1.00 | REC | $11.00 |
| ADD | $0.00 | UNI | $522.50 | | |

**Ttl Pd $543.50 Rcpt # 02215644**
clkdlmlfj1/GV/1-3

A.P.N.: 026-061-055

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is $522.50 City Transfer Tax: $0.00
(X) computed on full value of property conveyed, or
() computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **WILLIAM L JOHNSTON AND ELVIRA JOHNSTON , AS JOINT TENANTS AS TO A 50% INTEREST AND HUSBAND AND WIFE AND JOHN BOYD AND LUGENE BALDWIN BOYD , HUSBAND AND WIFE, AS JOINT TENANTS AS TO A 50% INTEREST, AS TENANTS IN COMMON**

Hereby GRANT(S) to **PLACER LAND TRUST A NONPROFIT PUBLIC BENEFIT CORPORATION**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF FOR FULL LEGAL DESCRIPTION**

Dated: May 09, 2012

By: _____
WILLIAM L JOHNSTON

By: _____
ELVIRA JOHNSTON

By: _____
JOHN BOYD

By: _____
LUGENE BALDWIN BOYD

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

Name | Street Address | City & State



slrpkg.doc

STATE OF CALIFORNIA
COUNTY OF Nevada

On May 14, 2012 before me, Meridith Hagel, Notary Public,

personally appeared William L. Johnston, Elvira Johnston, John Boyd and Eugene Baldwin Boyd,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: Meridith Hagel
Commission Expiration Date: 1-1-13

MERIDITH HAGEL
Commission # 1826403
Notary Public - California
Nevada County
My Comm. Expires Jan 1, 2013

NNA1 NNA1

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

Name | Street Address | City & State



slrpkg.doc

**EXHIBIT "A"**
**LEGAL DESCRIPTION**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

PARCEL ONE (MBR 10226A):

THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 13 NORTH, RANGE 7 EAST, MDB&M.

SAID LAND BEING SHOWN AND DESIGNATED %22MBR 10226A%22 IN THAT CERTAIN RESOLUTION TO APPROVE A MINOR BOUNDARY ADJUSTMENT RECORDED MARCH 24, 1995 AS INSTRUMENT NO. 95-014535, OFFICIAL RECORDS.

APN: 026-061-055

PARCEL TWO:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS 50 FEET IN WIDTH, LOCATION SUBJECT TO CHANGE AS DISCLOSED IN RIGHT OF WAY EASEMENT RECORDED FEBRUARY 3, 1977 IN BOOK 1806, AT PAGE 243, OFFICIAL RECORDS OF PLACER COUNTY.

PARCEL THREE:

A NON-EXCLUSIVE EASEMENT 50 FEET IN WIDTH, FOR INGRESS AND EGRESS AS DISCLOSED IN GRANT DEED RECORDED MARCH 24,1995, INSTRUMENT NO. 95-014536,RECORDS OF PLACER COUNTY.

RECORDING REQUESTED BY

Placer Title Company

Escrow Number: 110-9076-

**AND WHEN RECORDED MAIL TO**

COUNTY OF PLACER, A POLITICAL
SUBDIVISION OF THE STATE OF CALIFORNIA
11476 C Avenue
Auburn CA 95603

CERTIFIED TO BE A TRUE
AND CORRECT COPY OF
Document Recorded 8/16/16
Series # 2016 - 0067595
PLACER TITLE COMPANY
By

SPACE ABOVE THIS LINE FOR RECORDER'S USE

# GRANT DEED

The undersigned grantor(s) declare(s):
Documentary transfer tax is $412.50 City Transfer Tax: $0.00
(X) computed on full value of property conveyed, or
() computed on full value less value of liens and encumbrances remaining at time of sale.

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **RONALD J. SPEARS AND COLLEEN A. LEAHY , HUSBAND AND WIFE, AS JOINT TENANTS**

Hereby GRANT(S) to **COUNTY OF PLACER, A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA**

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

**SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF FOR FULL LEGAL DESCRIPTION**

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

| Name | Street Address | City & State |
|---|---|---|

SIGNATURE PAGE TO GRANT DEED

Dated: July 18, 2016

By: _____
RONALD J. SPEARS

By: _____
COLLEEN A. LEAHY

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

| Name | Street Address | City & State |
|---|---|---|

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF PLACER

On July 29, 2016 before me, T. C. MURPHY, Notary Public, personally appeared Ronald J. Spears and Colleen A. Leahy,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he/she~~/they executed the same in ~~his/her~~/their authorized capacity(ies), and that by ~~his/her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature:
Commission Expiration Date: Sept. 21, 2019

MGC1 T. C. MURPHY COMM. # 2124898 NOTARY PUBLIC - CALIFORNIA PLACER COUNTY COMM. EXPIRES SEPT. 21, 2019 MGC1

**MAIL TAX STATEMENTS TO PARTY SHOWN ON FOLLOWING LINE; IF NO PARTY SHOWN, MAIL AS DIRECTED ABOVE**

**SAME AS ABOVE**

| Name | Street Address | City & State |
|---|---|---|

# EXHIBIT "A"
# LEGAL DESCRIPTION

THE LAND DESCRIBED HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF PLACER, UNINCORPORATED AREA, AND IS DESCRIBED AS FOLLOWS:

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 13 NORTH, RANGE 7 EAST MDM, PLACER COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF SAID SOUTHEAST QUARTER FROM WHICH THE EAST QUARTER CORNER OF SAID SECTION 17 BEARS SOUTH 89° 59'26" EAST A DISTANCE OF 1, 335.40 FEET; THENCE FROM SAID POINT OF BEGINNING SOUTH 00° 44'26" WEST A DISTANCE OF 1310.39 FEET; THENCE SOUTH 89° 44'55" WEST A DISTANCE OF 1312.53 FEET TO THE WEST LINE OF SAID SOUTHEAST QUARTER; THENCE ALONG SAID WEST LINE NORTH 00° 15'31" WEST A DISTANCE OF 1,316.28 FEET TO THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89° 59'26" EAST A DISTANCE OF 1,355.39 FEET TO THE POINT OF BEGINNING, FURTHER DESCRIBED AS RESULTANT EXHIBIT "A" OF MINOR BOUNDARY LINE ADJUSTMENT FILE NO. MBR-11258, RECORDED DECEMBER 23, 2003 AS INSTRUMENT NO. 2003-0210565, OFFICIAL RECORDS.

A.P.N. 026-072-084 AND 026-072-85

# Before the Board of Supervisors
# County of Placer, State of California

In the matter of: A Resolution authorizing the Director of Public Works and Facilities, or designee, to execute an Agreement of Purchase and Sale to purchase 39.7 acres of property from Ronald J. Spears and Colleen J. Leahy

Resol. No: 2016-030

The following Resolution was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held February 9, 2016, by the following vote on roll call:

Ayes: DURAN, HOLMES, UHLER, MONTGOMERY, WEYGANDT

Noes: NONE

Absent: NONE

THE FOREGOING INSTRUMENT IS A CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE ATTEST

SHARLET PYNE
Clerk of the Board of Supervisors, County of Placer, State of California

Deputy Clerk

Signed and approved by me after its passage.

Chair, Board of Supervisors

Attest:

Clerk of said Board

---

**WHEREAS**, Ronald J. Spears and Colleen A. Leahy (Owners) currently own approximately 39.7 acres described as APNs 026-072-084 and 026-072-085 located west of Hidden Falls Regional Park and adjacent to Garden Bar Road in Auburn (Purchase Property); and,

**WHEREAS**, Owners desire to sell the Purchase Property to the County for a purchase price of $375,000; and,

**WHEREAS**, the acquisition of the Purchase Property provides benefits to the County particularly due to its proximity to the Hidden Falls Regional Park and Garden Bar Road.

**NOW, THEREFORE, BE IT RESOLVED**, the Placer County Board of Supervisors does hereby delegate authority to the Director of Public Works and Facilities, or designee, to execute an Agreement for Purchase and Sale based on the attached Material Terms (See Exhibit A), and to take all other actions necessary to effectuate the acquisition; and does hereby consent to the acceptance and recordation of the deed for said Purchase Property.

Exhibit A – Material Terms

## RONALD J. SPEARS PROPERTY

## MATERIAL TERMS

### Agreement for Purchase and Sale

1. Property: That certain real property located in the Garden Bar/Big Hill area of Placer County, California, consisting of an approximately 39.7 acres of Placer County Assessor's Parcel Nos. 026-072-084 and 026-072-085, hereinafter referred to as the "Purchase Property" ("Legal Description" – Exhibit B-1 and "Property Depiction" – Exhibit B-2).

2. Parties: The County of Placer, a political subdivision of the State of California ("County") and Ronald J. Spears and Colleen A. Leahy, Husband and Wife as Joint Tenants, the fee simple owner ("Owner").

3. Escrow Opening: The purchase and sale of the Purchase Property will be consummated by means of an escrow to be opened at Placer Title Company, Order No.110-9076, Attention Tracy Murphy, 1508 Eureka Road, #150, Roseville, CA 95661, Telephone (916) 782-3711, Fax (916) 774-0586, ("Escrow Holder") within five working days following the Effective Date of the Agreement.

4. Purpose of Agreement: The purpose of the Agreement of Purchase and Sale (Agreement) is to provide for the purchase and sale of the Purchase Property as conveyed through a Grant Deed from Owner to County.

5. Purchase Price: $375,000

6. Close of Escrow: Close of Escrow shall occur no later than sixty (60) days following the Effective Date of the Agreement of Purchase and Sale, unless otherwise extended by mutual consent of the Parties.

7. Conditions to Close: The Close of Escrow shall be conditioned on all of the following: 1) County's written acceptance of the condition of title and physical and environmental condition of the Purchase Property; 2) The Owners' delivery of copies of all tests, surveys, maps, plans, records, permits, correspondence reports or other materials affecting the Purchase Property which are in Owner's possession or control and which have not already been provided to the County, 3) The Owner shall deliver possession of the Purchase Property to County at Close of Escrow.

8. Closing Costs: County shall pay any recording fees and the premium for County's Title Policy. Owner shall pay any transfer taxes and all costs to place the Purchase Property in the condition

for conveyance required by the Agreement. County and Owner shall each pay one-half (1/2) of the escrow fees, documents preparation costs and other related closing costs. County and Owner shall each pay its own legal and professional fees and fees of other consultants incurred with regard to this transaction.

9. Representations and Warranties: Owner shall provide warranties and representations regarding the Purchase Property as defined in the Agreement.

**EXHIBIT B-1**

# Legal Description

All of that property described in the Grant Deed to Ronald J. Spears and Colleen A. Leahy recorded in document Number 2008-0088085, Official Records of Placer County, described as follows:

~~M.D.R. 11258 RESULTANT~~

EXHIBIT "A"

A portion of the southeast quarter of Section 17, Township 13 North, Range 7 East MDM, Placer County, California more particularly described as follows:

Beginning at a point on the north line of said southeast quarter from which the east quarter corner of said Section 17 bears South 89°59'26" East a distance of 1,335.40 feet; thence from said Point of Beginning South 00°44'26" West a distance of 1,310.39 feet; thence South 89°44'55" West a distance of 1,312.53 feet to the west line of said southeast quarter; thence along said west line North 00°15'31" West a distance 1,316.28 feet to the northwest corner of said southeast quarter; thence South 89°59'26" East a distance of 1,335.39 feet to the Point of Beginning

Containing 39.91 acres more or less

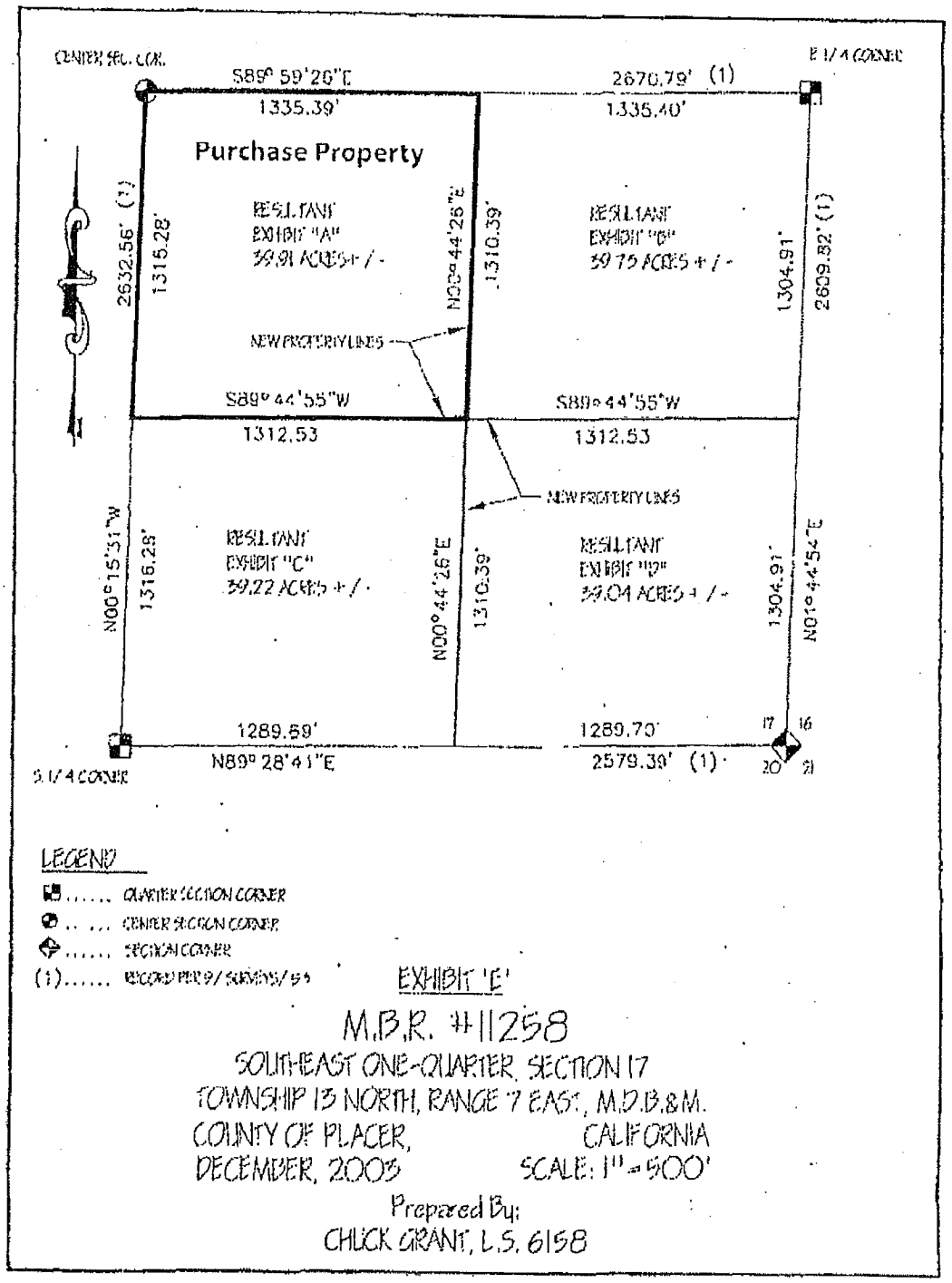
The above description is based upon the map filed in Book 9 of Surveys at Page 53 PCR.

APPROVED
PLACER COUNTY SURVEYOR
BY: [signature]
DATE: 12/4/03

LICENSED LAND SURVEYOR
CHARLES B. GRANT
Exp. 3-31-06
No. 6158
STATE OF CALIFORNIA

EXHIBIT B-2

# Property Depiction




7

**Project Name: Taylor Ranch**

**Recording requested by and Return to:**
Department of Facility Services
11476 C Avenue
Auburn, CA 95603
530-886-4900
Attention: Property Manager

PLACER, County Recorder
JIM MCCAULEY
DOC- 2012-0055234-00

THURSDAY, JUN 21, 2012 11:17:50
MIC $0.00 | AUT $0.00 | SBS $0.00
ERD $0.00 | RED $0.00 | * $0.00
ADD $0.00

Ttl Pd $0.00 Rcpt # 02202709
clkfpmlfj1/HD/1-8

## COUNTY OF PLACER

# OFFER OF DEDICATION

## MULTI-PURPOSE TRAIL EASEMENT

For the receipt of one dollar ($1.00) or other good and valuable consideration,

**Placer Land Trust, a California non-profit public benefit corporation**

**the undersigned GRANTOR(S), hereby irrevocably offers for dedication to the County of Placer, State of California,** an Easement for Multi-Purpose Trail purposes for non-motorized ingress and egress together with the right of construction, maintenance, and all appurtenances pertaining thereto upon, over, under and across all that real property situated in the County of Placer, State of California, bounded and described as follows:

*(Any and all interest in the property conveyed by grantor to the County of Placer pursuant to this instrument runs with the land and is binding on the heirs, assigns and successors of the grantor.)*

**(See Attached Exhibits "A" & "B")**

Dated this 13 Day of June, 2012,

GRANTOR(S) - PLACER LAND TRUST

Fred Yeager
Sign name

Fred Yeager, President
Print name and title

Sign name

Gregg McKenzie, Treasurer
Print name and title

See following page for Acknowledgement



#2

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of Placer

On June 14, 2012 (Date) before me, Kimberly L. Komora, Notary Public (Here Insert Name and Title of the Officer)

personally appeared Gregg McKenzie (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

KIMBERLY L. KOMORA
Comm. #1961609
Notary Public • California
Placer County
Comm. Expires Nov 24, 2015

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Signature of Notary Public)

Place Notary Seal Above

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Description of Attached Document

Title or Type of Document: OFFER OF DEDICATION

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

### Capacity(ies) Claimed by Signer(s)

Signer's Name: Gregg McKenzie
- ☐ Individual
- ☑ Corporate Officer — Title(s): Treasurer
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____
- ☐ Individual
- ☐ Corporate Officer — Title(s): _____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

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# ACKNOWLEDGEMENT

State of California
County of Placer

On 12/13/12 before me,
Kristin Moore, Notary Public (name, title),
personally appeared Fred Yeager
who proved to me on the basis of satisfactory evidence to be the person(~~s~~)
whose name(~~s~~) (is)/~~are~~ subscribed to the within instrument and acknowledged to me that (he)/~~she/they~~ executed the same in (his)/~~her/their~~ authorized capacity(~~ies~~),
and that by (his)/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under the PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

KRISTIN MOORE
COMM. # 1965886
NOTARY PUBLIC - CALIFORNIA
PLACER COUNTY
MY COMM. EXP. JAN. 7, 2016

(Seal)

Signature

**CAPACITY CLAIMED BY SIGNER**

- ☐ INDIVIDUAL(S) SIGNING FOR ONESELF/THEMSELVES
- ☒ CORPORATE OFFICER(S)
  President
  TITLE(S)
  Placer Land Trust
  COMPANY
- ☐ PARTNER(S)
  PARTNERSHIP
- ☐ ATTORNEY-IN-FACT
  PRINCIPAL(S)
- ☐ TRUSTEE(S)
  TRUST
- ☐ OTHER
  TITLE(S)
  ENTITY(IES) REPRESENTATIVE

## CONSENT TO RECORDATION:

The County of Placer hereby consents to the recordation of the Offer of Dedication attached hereto. The County does not accept said offer at this time, but reserves the right to do so in the future, pursuant to authority conferred by Ordinance 5152-B.

DATE

SIGN NAME

PRINT NAME AND TITLE

## ACCEPTANCE (1): BY AUTHORIZED AGENT:

This is to certify that the interest in real property conveyed by the deed or grant deed dated_____, 20_____, from _____
To the County of Placer, a government agency, is hereby accepted by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to authority conferred by Ordinance 5152-B adopted on January 15, 2002, and the Grantee consents to the recordation thereof by it's duly authorized agent.

DATE

SIGN NAME

PRINT NAME AND TITLE

## ACCEPTANCE

This is to certify that the interest in real property described in this Offer of Dedication for a Multipurpose Trail Easement is hereby accepted on behalf of the public by the undersigned agent on behalf of the Board of Supervisors of the County of Placer pursuant to the authority conferred by Resolution No. 2007-82 as approved by the County Board of Supervisors on March 20, 2007, and the Grantee consents to the recordation thereof by its duly authorized agent.

Signature

Dated 6/18/12

James Durfee
Director of Facility Services

## EXHIBIT "A"

A portion of the property conveyed to Placer Land Trust by that Grant Deed recorded as Document No. 2007-0040792, Official Records of Placer County, situated in the Northwest Quarter and the Southwest Quarter of Section 13, Township 13 North, Range 7 East, M.D.M., County of Placer, State of California, more particularly described as follows:

All that portion of the following described strip of land lying within said Placer Land Trust property, as follows:

A one hundred (100.00) foot wide strip of land lying fifty (50.00) feet on each side of the following described centerline:

Beginning at a point on the West line of the of said Section 13, from which, Northwest Corner of said Section 13 bears North 00°53'32" West, 240.73 feet;

Thence from said Point of Beginning, leaving said West line, along the following eleven (11) courses and distances:

1. South 21°06'40" East, 805.12 feet;
2. South 21°28'09" East, 470.36 feet;
3. South 08°56'58" East, 257.51 feet;
4. South 14°54'51" West, 200.86 feet;
5. South 41°20'48" West, 162.19 feet;
6. South 02°18'20" East, 77.35 feet;
7. South 44°36'39" West, 190.66 feet;
8. South 07°46'15" East, 50.77 feet;
9. South 35°00'43" West, 153.55 feet;
10. South 66°10'44" West, 72.39 feet; and
11. South 18°59'04" West, 91.78 feet to a point on the West line of said Section 13;

Thence along said West line South 00°53'32" East, 18.97 feet;
Thence leaving said West line, along the following forty eight (48) courses and distances:

1. South 85°15'42" East, 68.65 feet;
2. South 03°07'46" West, 156.90 feet;
3. South 07°47'44" East, 114.33 feet;
4. South 01°40'26" West, 141.94 feet;
5. North 81°56'46" East, 122.87 feet;
6. South 27°41'55" West, 91.58 feet;
7. South 73°09'12" East, 45.87 feet;
8. North 41°03'49" East, 449.55 feet;
9. South 33°42'35" East, 124.64 feet;
10. South 05°42'54" East, 53.43 feet;
11. South 27°49'23" West, 302.10 feet;
12. South 50°51'46" West, 339.87 feet;

13. South 88°16'16" East, 218.73 feet;
14. North 61°05'59" East, 151.34 feet;
15. South 78°14'54" East, 72.60 feet;
16. North 57°54'01" East, 482.98 feet;
17. South 48°15'39" East, 145.29 feet;
18. South 24°56'41" West, 50.49 feet;
19. South 18°48'46" East, 128.07 feet;
20. South 58°50'02" West, 57.32 feet;
21. North 70°59'58" West, 101.01 feet;
22. South 25°55'49" East, 268.49 feet;
23. South 88°33'03" East, 115.44 feet;
24. South 07°01'18" West, 95.60 feet;
25. South 77°54'50" East, 167.32 feet;
26. North 63°48'20" East, 105.82 feet;
27. South 80°36'06" East, 241.36 feet;
28. South 44°05'50" West, 128.06 feet;
29. South 71°46'00" West, 419.89 feet;
30. North 75°21'13" West, 196.29 feet;
31. South 33°05'45" East, 402.95 feet;
32. South 81°06'06" East, 318.52 feet;
33. South 16°47'40" West, 95.36 feet;
34. South 47°18'42" West, 128.24 feet;
35. South 14°02'46" West, 77.68 feet;
36. South 64°43'28" East, 145.94 feet;
37. South 25°47'10" East, 186.68 feet;
38. South 84°52'32" East, 113.57 feet;
39. North 79°37'07" East, 176.92 feet;
40. South 19°35'12" West, 69.21 feet;
41. South 87°50'50" West, 136.04 feet;
42. South 05°54'38" East, 251.64 feet;
43. North 83°14'37" West, 281.23 feet;
44. North 59°58'37" West, 138.00 feet;
45. South 81°31'02" West, 97.52 feet;
46. South 28°31'09" West, 361.81 feet;
47. North 65°34'19" West, 242.57 feet; and
48. South 27°20'47" East, 188.65 feet to a point lying 50' northerly, measured at right angles, from the South line of said Section 13;

Thence along a line parallel to and 50' northerly of said South line, South 89°04'21" West, 930.54 feet to a point on the West line of said Section 13 from which, the Southwest corner of said Section 13 bears South 00°53'32" East, 50.00 feet.

The sidelines of said strip are to be prolonged or shortened to terminate on the West line of said Section 13.

End of description

Description prepared by:

**County of Placer**
**CDRA – Engineering & Surveying**
3091 County Center Drive, Suite 120
Auburn, CA 95603

Leslie Amsberry

Leslie Amsberry, PLS 6584
License Expiration Date: 12-31-13
Date: 6-1-2012

LICENSED LAND SURVEYOR
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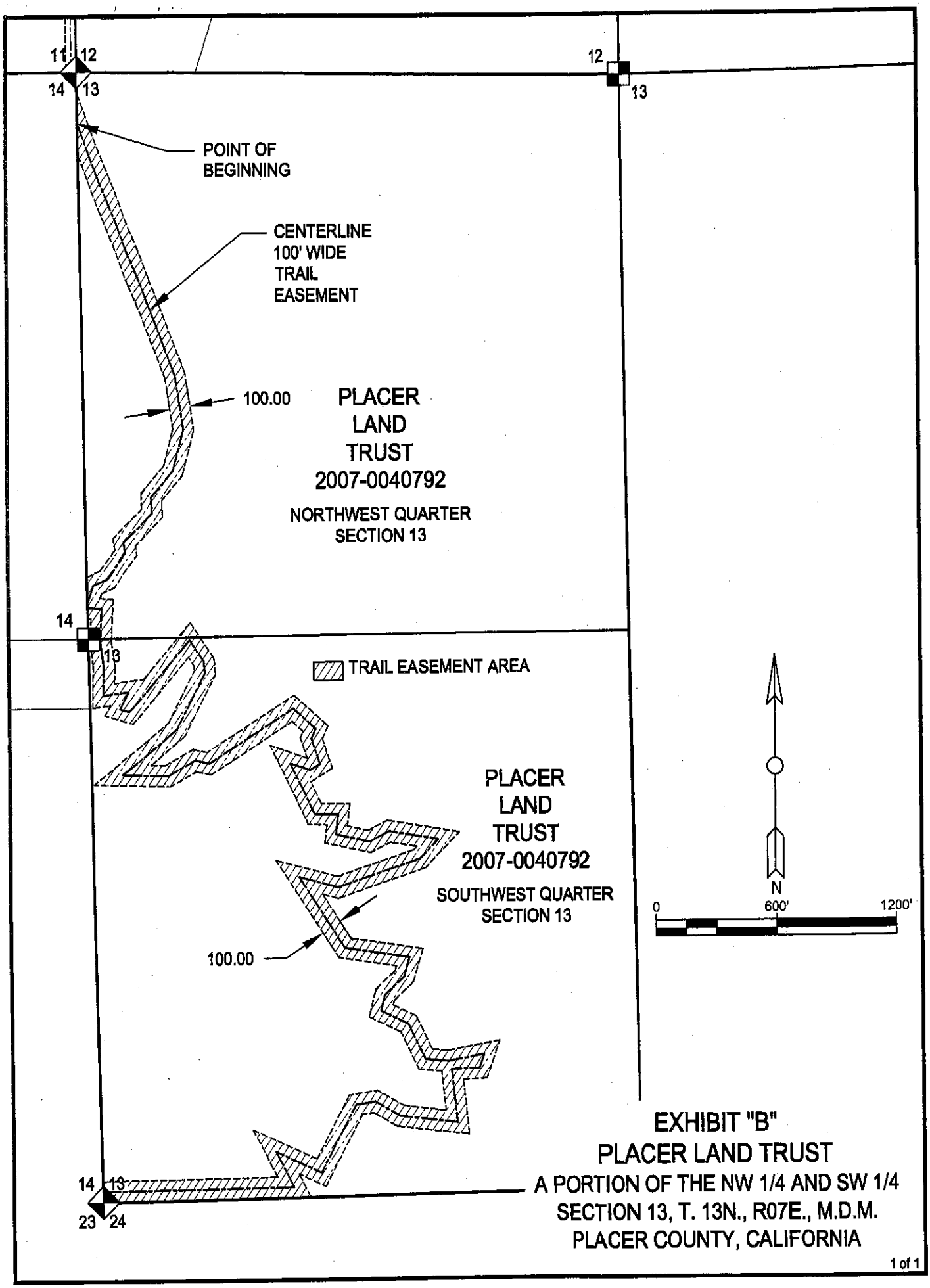
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PLACER COUNTY, CALIFORNIA
1 of 1

# APPENDIX C

AB 52 Consultations and Cultural Resource Report

# AB 52 Consultations

**M E M O R A N D U M**
**COMMUNITY DEVELOPMENT RESOURCE AGENCY**
**Environmental Coordination Services**
County of Placer

**TO:** Distribution List

**DATE:** March 13, 2018

**FROM:** Shirlee Herrington, Community Development Technician, 530-745-3132

**SUBJECT:** Hidden Falls Regional Park Trails Network Expansion Project

---

The Placer County Department of Public Works, Parks Division, is the Lead Agency for the Hidden Falls Regional Park Trails Expansion Project (Proposed Project).This notification is being forwarded to Native American tribes that are understood to be traditionally and culturally affiliated with the project area pursuant to the statutory requirements of Assembly Bill 52 (Chapter 532, Statues of 2014). The County is in the process of determining the appropriate scope and content of the environmental analysis to be prepared for the Proposed Project in accordance with the California Environmental Quality Act (CEQA).

The project proponent property owners/easement holders are Placer County and the Placer Land Trust, with the Twilight Ride parcels currently privately owned. The Proposed Project includes a Conditional Use Permit Modification for an expanded trail system and three new public parking areas (Garden Bar, Bell Road/Twilight Ride and Curtola Ranch Road areas), as well as a minor expansion of the existing parking area on Mears Place, all of which will serve the Proposed Project.

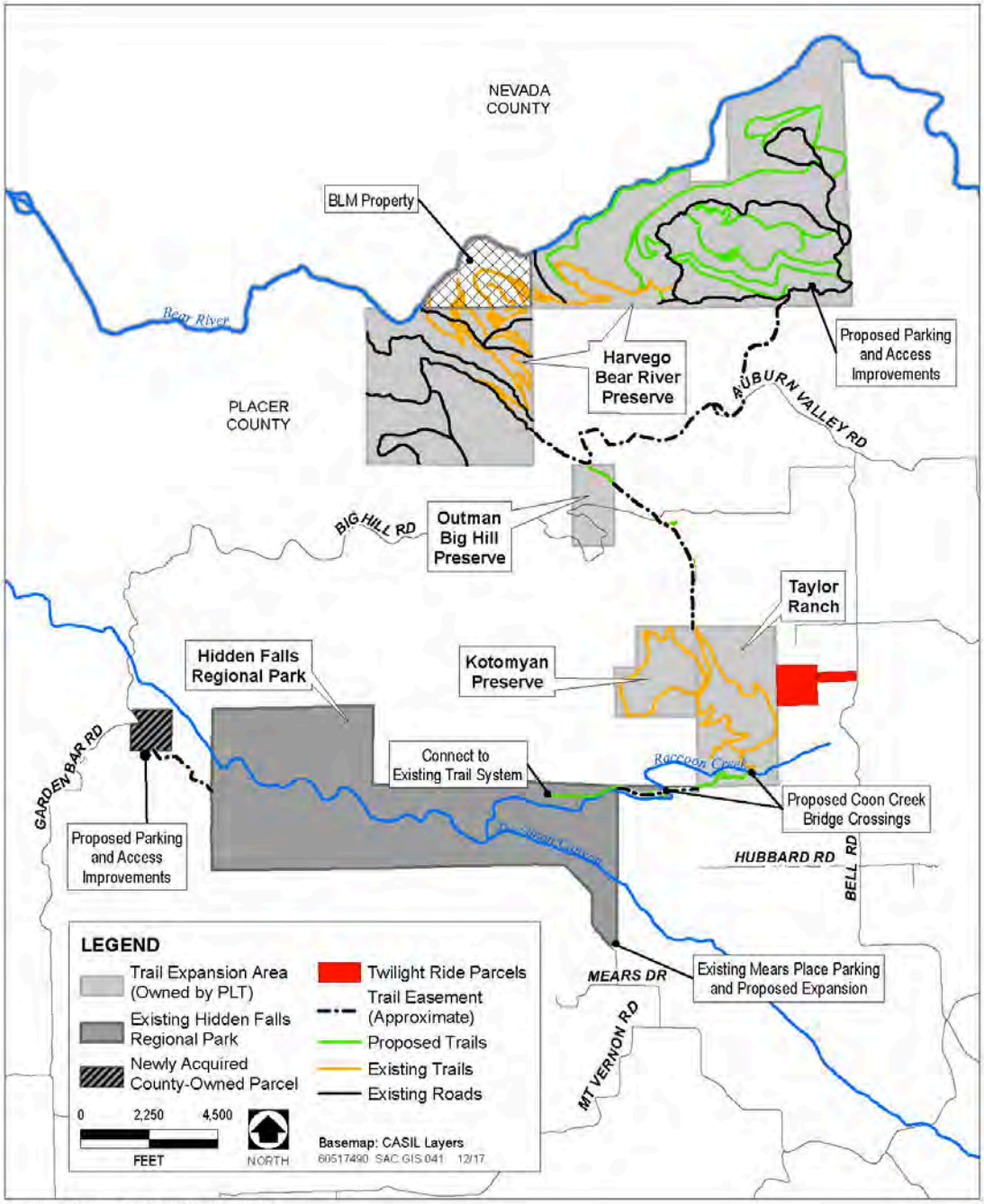
The three public parking areas for the Proposed Project are located off of Garden Bar Road, Bell Road and Curtola Ranch Road in Placer County, and the Assessor's Parcel Numbers for the parking areas consist of (APN) 026-072-084-000; 026-110-012-000 and 026-110-018-000; 026-020-012 and 026-020-013-000, respectively. The location of the properties and the corresponding trail network system are shown on **Figure 1**.

Pursuant to Public Resources Code 21030.3.1, requests for consultation must be received within 30 days of this notification. If you have comments or would like to consult on the project, please contact:

Environmental Coordination Services
ATTN: Shirlee Herrington
3091 County Center Drive Suite 190
Auburn, CA 95603
Phone: 530.745.3132 email: cdraecs@placer.ca.gov

Distribution List:
Ione Band of Miwok Indians, Chairperson Randy Yonemura
United Auburn Indian Community of the Auburn Rancheria, Chairperson Gene Whitehouse
Washoe Tribe of Nevada and California, Chairperson Darrell Kizer
Colfax-Todds Valley Consolidated Tribe, Pamela Cubbler Cultrural Preservatoin Officer

**Figure 1: Project Location and Trail System**




Source: Placer County 2017, PLT 2017

**From:** Lisa Carnahan <LCarnaha@placer.ca.gov>
**Sent:** Tuesday, April 30, 2019 3:55 PM
**To:** Koch, Ken
**Subject:** FW: Hidden Falls Regional Park Trails Expansion

FYI.

Thanks!

*Lisa*

---

**From:** Melodi McAdams [mailto:mmcadams@auburnrancheria.com]
**Sent:** Wednesday, April 10, 2019 12:20 PM
**To:** Lisa Carnahan
**Cc:** Matthew Moore; Cherilyn Neider; Steven Hutchason
**Subject:** Hidden Falls Regional Park Trails Expansion

Hello Lisa,

Thank you for the recent site visit with UAIC THPO Matt Moore to Hidden Falls to discuss the Hidden Falls Regional Park Trails Expansion. THPO Moore confirmed that he was in agreement with the project details that were discussed during the site visit, but requested an additional site visit once the new trails have been put in and before those new trails are open to the public.

Sincerely,
Melodi McAdams
Cultural Resources Supervisor
Tribal Historic Preservation Department
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603
(530) 328-1109 - office
(530) 401-7470 - cell

Wonderful! Let's meet here at the Parks office then (2855 2nd St., Auburn) at 8:00 on the 8th. We can look at maps before we head out in order to get everyone oriented. We will plan on being out all day, so make sure to bring comfortable hiking shoes, water and food, sun screen, hat, etc. I will send out a meeting invite to all, including Justin Wages at the Placer Land Trust.

Thank you,

*Lisa Carnahan*

Placer County Parks Division
Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov

**From:** Pamela Cubbler [mailto:pcubbler@colfaxrancheria.com]
**Sent:** Monday, April 01, 2019 11:41 AM
**To:** Lisa Carnahan; Cherilyn Neider; Matthew Moore
**Cc:** Rebecca Allen; Leigh Chavez
**Subject:** Re: Hidden Falls Regional Park Trails Expansion Project

Hello Lisa,

I am available to meet on the 8th.

Thank you,
Pam Cubbler
530-320-3943

---

**From:** Lisa Carnahan <LCarnaha@placer.ca.gov>
**Sent:** Monday, April 1, 2019 7:52:14 AM
**To:** Cherilyn Neider; Matthew Moore; Pamela Cubbler
**Cc:** Rebecca Allen; Leigh Chavez
**Subject:** RE: Hidden Falls Regional Park Trails Expansion Project

Good morning,

Pam, do either of those dates work for you? And, is everyone o.k. with all of us going together?

I was planning to visit all of the parking areas for sure. We can also visit as many areas of proposed trail sites as you wish. Most of the trail system is already existing (previously constructed by Placer Land Trust), so I'm guessing we do not need to visit those areas, but there are a few areas of proposed new trails. They will be similar to what is out at the existing Hidden Falls park.

As soon as I have heard back from Pam, I will schedule either the 8th or 9th. I'm also checking with Placer Land Trust to see if they would like to join us.

Thank you,

*Lisa Carnahan*
Placer County Parks Division
Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov
(530) 889-6837

**From:** Cherilyn Neider [mailto:cneider@auburnrancheria.com]
**Sent:** Thursday, March 28, 2019 4:36 PM
**To:** Lisa Carnahan; Matthew Moore; pcubbler@colfaxrancheria.com
**Cc:** Rebecca Allen; Leigh Chavez

**Subject:** RE: Hidden Falls Regional Park Trails Expansion Project

Hi Lisa,
It looks like April 8th or 9th work best on our end. The expansion area is pretty substantial. Are there areas in which the County had in mind to visit?

If you are able to provide us with the shapefiles for the expansion locations, connector trails, parking etc., we can also provide some suggested locations.

Many thanks,
Cherilyn

**Cherilyn Neider**
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

**From:** Lisa Carnahan [mailto:LCarnaha@placer.ca.gov]
**Sent:** Thursday, March 28, 2019 10:51 AM
**To:** Matthew Moore <mmoore@auburnrancheria.com>; Cherilyn Neider <cneider@auburnrancheria.com>; pcubbler@colfaxrancheria.com
**Cc:** Rebecca Allen <rallen@auburnrancheria.com>; Leigh Chavez <LChavez@placer.ca.gov>
**Subject:** RE: Hidden Falls Regional Park Trails Expansion Project

Hello to you All,

I hope that you are enjoying this fabulous Spring rain!

I wanted to reach out and find a day either late next week or the week after that works for everyone for a site visit to the Hidden Falls expansion areas. As the Placer Land Trust prefers a week's notice prior to us going out to their property, let's try to set up a date either next Friday or the week of the 8th. I have the following availabilities:

April 5th – Available all day
April 8th, 9th or 11th– Available all day

Thank you,

*Lisa Carnahan*
Placer County Parks Division
Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov
(530) 889-6837

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**From:** Melodi McAdams <mmcadams@auburnrancheria.com>
**Sent:** Tuesday, April 30, 2019 4:40 PM
**To:** Lisa Carnahan; Matthew Moore
**Cc:** Koch, Ken; Cherilyn Neider
**Subject:** RE: HFRP Trails Expansion Project

Hello Lisa,

Thank you for your follow-up, Matt just left the office for the day. I spoke with him earlier about your project, and he did confirm that the new mitigation measures as summarized in your e-mail below are intended to replace the mitigation measures that were previously recommended.

Please let me know if you need confirmation from Matt as well, and I will follow up with him once he is back in the office tomorrow.

Sincerely,
Melodi McAdams
Cultural Resources Supervisor
Tribal Historic Preservation Department
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603
(530) 328-1109 - office
(530) 401-7470 - cell

---

**From:** Lisa Carnahan [mailto:LCarnaha@placer.ca.gov]
**Sent:** Tuesday, April 30, 2019 3:55 PM
**To:** Matthew Moore <mmoore@auburnrancheria.com>
**Cc:** Melodi McAdams <mmcadams@auburnrancheria.com>; ken.koch@aecom.com
**Subject:** HFRP Trails Expansion Project

Hi Matt,

I hope things are going well in your world. Our consultant, AECOM, is trying to finish the Hidden Falls Regional Park Trails Expansion Project Admin Draft Subsequent EIR this week, and I want him to be able to add your recommendations into the document. Per Melodi McAdams' email sent to me on 4/10/2019, we will add into our SEIR the following:

"Once new trails and/or parking areas have been graded and prior to those new trails and/or parking areas being opened to the public, the County will notify the United Auburn Indian Community of the Auburn Rancheria (UAIC) so the UAIC may conduct an additional site visit, if i so desires."

Based upon the subsequent consultation with you, including your visit to the various areas of the proposed project on 4/8/19 and emails sent by you on 4/9/19 (below) and Melodi's follow-

up email on 4/10/19, Parks will assume that the prior email and mitigation measures received from Marcos Guerrero on July 25, 2018 have been rescinded by your office.

Please confirm our understanding of your recommendation and the understanding that the ema and mitigation measures sent by Marcos have been rescinded and are superseded by our consultation with you.

Thank you,

*Lisa Carnahan*
Placer County Parks Division
Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov
(530) 889-6837

---

**From:** Matthew Moore [mailto:mmoore@auburnrancheria.com]
**Sent:** Tuesday, April 09, 2019 3:11 PM
**To:** Lisa Carnahan
**Subject:** Re: Site Visit to HFRP

Very good day indeed! I can prepare a quick write up for our recommendations. I am in the field agai today but hopefully tomorrow I can get that to you! It was a pleasure working with you and thanks again for the tour. Matt

Sent from my iPhone

On Apr 9, 2019, at 8:36 AM, Lisa Carnahan <LCarnaha@placer.ca.gov> wrote:

> Good Morning!
>
> It was an absolutely lovely day yesterday. Thank you all for taking the time to come out and visit the proposed project areas with me. I look forward to working with you on both this project and on signage for the park areas. ☺ I'm excited about the prospect of adding in "virtual reality" components to draw in the youth and help give people a more interactive view into the total history of the area. Can you please send me the contacts for the two ladies you mentioned who can work with me on the interpretive elements?
>
> Matt, if you could please put into writing the mitigation you decided upon yesterday so that our consultant can finish up the Admin Draft this week, that would be wonderful (i.e. contact the Tribe after grading so that someone can come out and view the graded areas; proper notification if artifacts are discovered). Pam, will the Colfax-Todds Valley Consolidated Tribe be submitting a letter as well?
>
> Talk to you all soon,

*Lisa Carnahan*
Placer County Parks Division
Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov
(530) 889-6837

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Based upon the subsequent consultation with you, including your visit to the various areas of the proposed project on 4/8/19 and emails sent by you on 4/9/19 (below) and Melodi's follow-up email on 4/10/19, Parks will assume that the prior email and mitigation measures received from Marcos Guerrero on July 25, 2018 have been rescinded by your office.

Please confirm our understanding of your recommendation and the understanding that the ema and mitigation measures sent by Marcos have been rescinded and are superseded by our consultation with you.

Thank you,

*Lisa Carnahan*
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Talk to you all soon,

*Lisa Carnahan*
Placer County Parks Division
Senior Planner
11476 C Avenue
Auburn, CA 95603
lcarnaha@placer.ca.gov
(530) 889-6837

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Twilight Park Parcel Cultural Resources Study

AECOM
2022 J Street
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

July 9, 2018

Lisa Carnahan
Placer County Department of Facility Services
Parks & Grounds Division
11476 C Avenue
Auburn, CA 95603

**Subject: Hidden Falls Regional Park Twilight Parcel Cultural Resources Study**

Dear Ms. Carnahan:

This letter report provides the methods and results of a cultural resources study conducted for the Hidden Falls Regional Park Twilight Ride Parcels (project) for Placer County. This memo is an addendum to the *Hidden Falls Regional Park Trail Network Expansion Cultural Resources Inventory Report, Placer County, California* prepared for Placer County Public Works and Facilities Parks Division by AECOM in August 2017.

As part of the Placer County Hidden Falls Regional Park Trails Network Expansion Project the county is proposing parking and trailhead access from the Twilight Ride property on Bell Road (Figures 1 and 2). The Twilight Ride property is situated immediately east of the existing Taylor Ranch portion of Hidden Falls Regional Park (Figure 1), and will involve improvements to the access road, and construction of parking facilities for vehicles, and horse trailers (Figure 2).

The study area is approximately 50 acres in size. The project includes road improvements (including two stream crossing) for the existing access road and preparation/grading of two areas to be used for horse trailer and vehicle parking (Figure 2). An additional area may be used for horse boarding/pasture. The study included a pedestrian survey, a records search conducted by the North Central Information Center (NCIC), and Native American consultation.

One previously unreported cultural resource, an isolated milling feature was identified during the study. The feature was documented on appropriate Department of Parks and Recreation forms, which are included as an attachment to this report. Subsurface investigations would be required to determine if the feature qualifies for programmatic treatment as an isolated bedrock milling feature. However, the feature is outside of the areas that will be used for parking or other improvements, including pasture. The study area also appears to have low sensitivity for finding additional prehistoric or historic-era resources.

## REGULATORY, ENVIRONMENTAL AND CULTURAL BACKGROUND

The regulatory, environmental and cultural background can be found in the *Hidden Falls Regional Park Trail Network Expansion Cultural Resources Inventory Report, Placer County, California* prepared for Placer County Public Works and Facilities Parks Division by AECOM in August 2017.

## METHODS

### NCIC Records Search

The NCIC conducted a confidential records search that included the Area of Potential Effects (APE)/study area as well as a 1/4-mile buffer area on May 18, 2018 The following documents and sources were reviewed during the records search:

- National Register of Historic Places
- California Register of Historical Resources
- *California Inventory of Historic Resources* (1976)
- *California Points of Historical Interest* (May 1992 and updates)
- *California Historical Landmarks* (1996)
- Directory of Properties in the Historic Property Data File
- Archaeological Determinations of Eligibility
- *Survey of Surveys* (1989)
- NCIC base maps indicating reported cultural resources and previous investigations

No previous studies have been conducted within the proposed expansion area, however the review indicated that five previous cultural resource investigations and studies had been conducted in the project vicinity located 1/4-mile south of the study area. All of the previous studies are associated with the replacement of a bridge on Bell Road (Table 1). The initial investigations (Windmiller 1996a and 1996b) identified a possible prehistoric habitation site with milling features (P-31-1108), and four historic-era sites consisting of two ditch segments (P-31-2963 and P-31-2964), a walkway (P-31-2965), and a barn with ancillary buildings (P-31-2974). At the time of the original 1996 surveys the prehistoric site was determined to be potentially eligible for inclusion in the National Register of Historic Places (NRHP), and the four historic-era sites were determined not eligible for inclusion in the NRHP. Subsequent Phase II investigations failed to identify archaeological values at the prehistoric site that would qualify it as eligible for inclusion in the NRHP under Criterion D (Shapiro and Jackson 2001a and 2001b).

**Table 1 Previous Cultural Resources Investigations**

| NCIC Report Number | Report Title | Author | Date |
|---|---|---|---|
| 002693 | Determination of Eligibility and Finding of Effect, CA-PLA-930 for Bridge Replacement on Bell Road at Orr Creek Placer County, California | Shapiro and Jackson | 2001a |
| 002693A | Phase II Archaeological Investigations at Prehistoric Site CA-PLA-930 on Bell Road at Orr Creek, Placer County, California | Shapiro and Jackson | 2001B |
| 002693B | X-Ray Fluorescence Analysis of Artifact Obsidian and Basalt from CA-PLA-930, Placer County, California | Skinner and Thatcher | 2001 |
| 008/269 | Historic Property Survey Report for the Bell Road at Orr Creek Bridge Replacement Project, Placer County, California | Windmiller | 1996a |
| 008269A | Archeological Survey Report for the Bell Road at Orr Creek Bridge Replacement Project, Placer County, California | Windmiller | 1996b |

Source: NCIC 2018

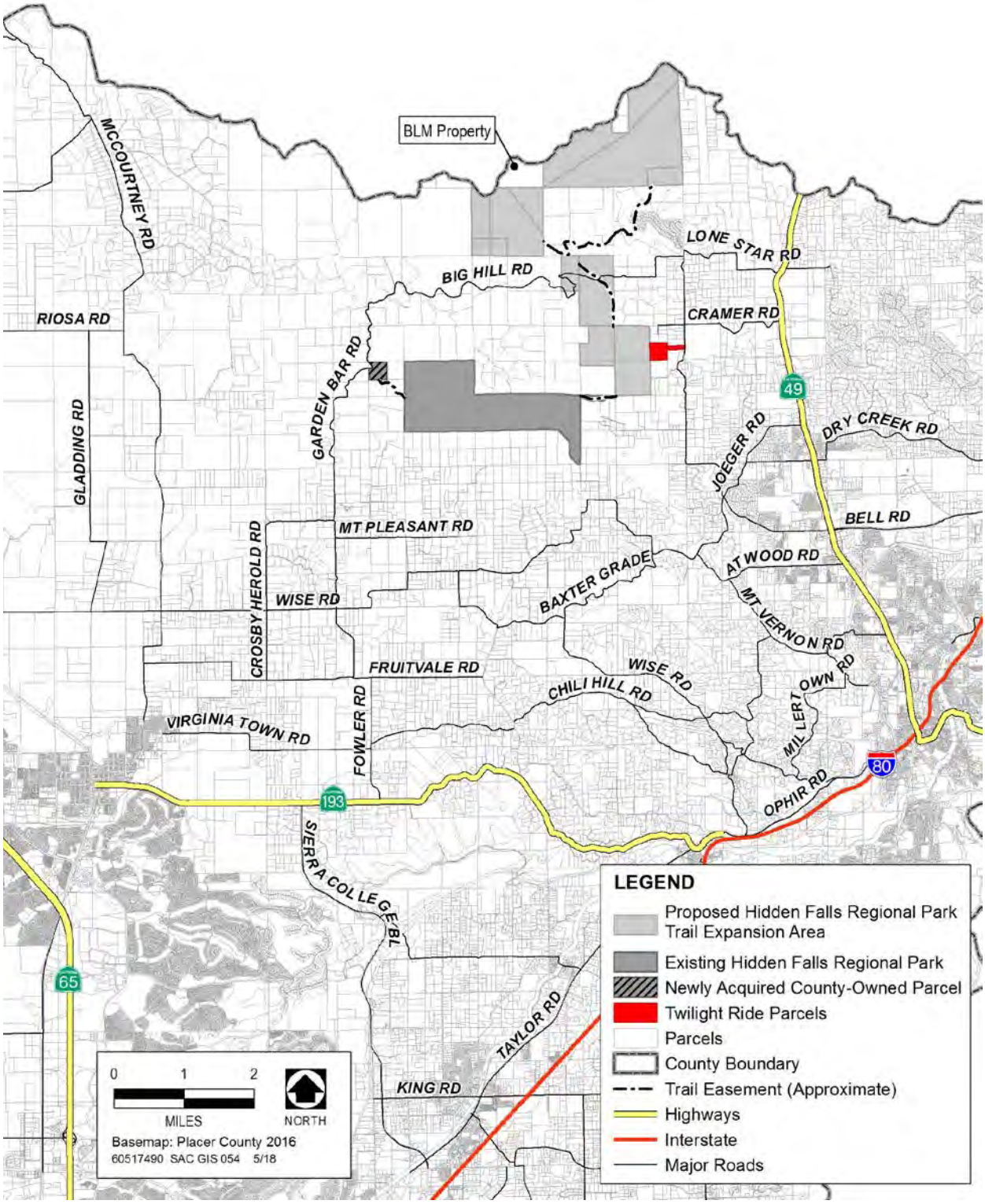


**Figure 1 Project Vicinity**

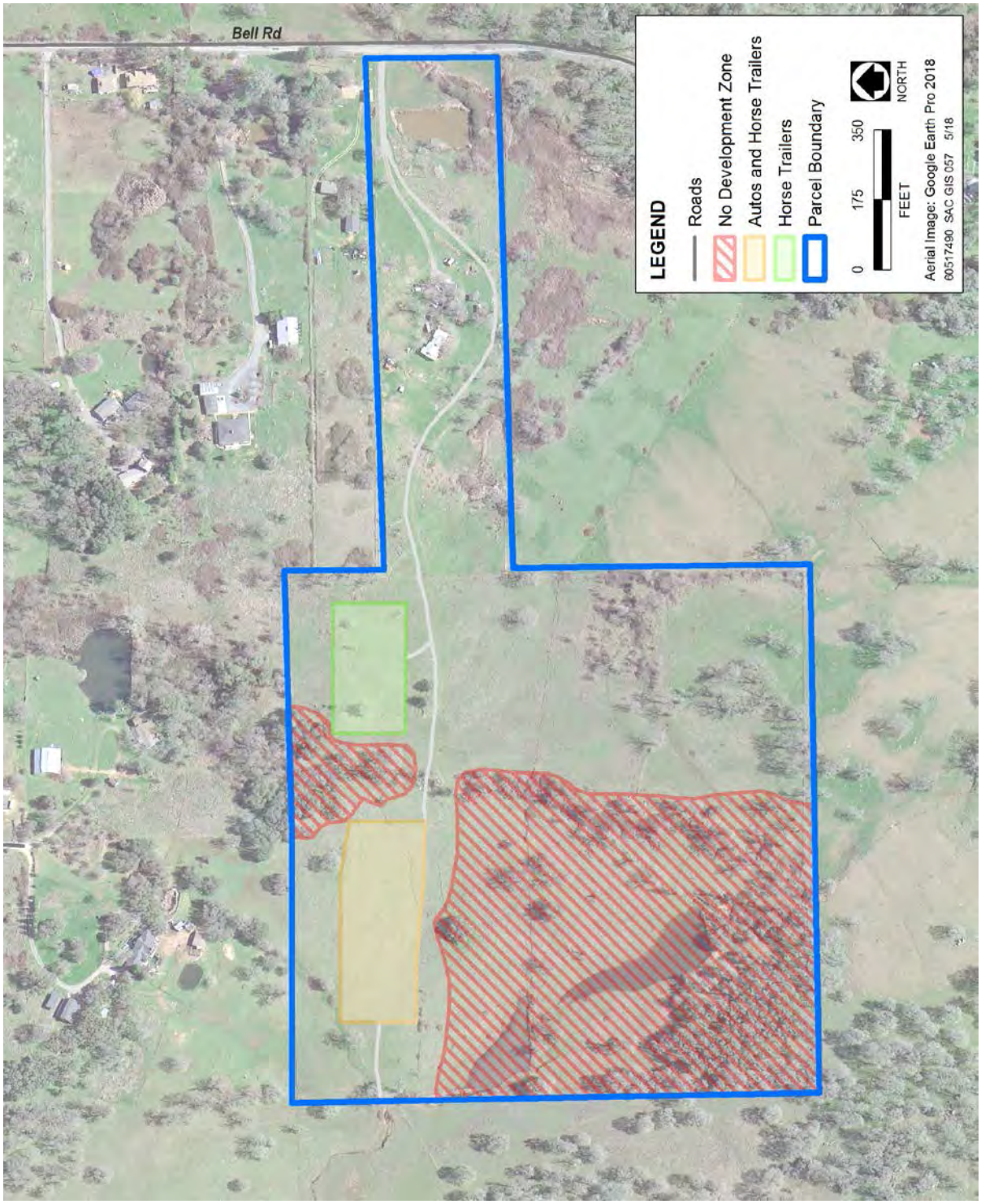


**Figure 2 Project Location**

Location of Milling Feature (MF1)
Not for public review

**Figure 3 Location of Milling Feature**

**Field Survey**
AECOM archaeologist Richard Deis, Registered Professional Archaeologist, conducted the archaeological pedestrian survey on May 15, 2018 of the proposed road alignment, and areas to be used for construction of a barn, parking, and pasture, using transects approximately 30 meters in width.

The majority of the APE is covered with grasses up to 40 centimeters (16 inches) in height (Figure 4). Exposed bedrock and boulders are scattered through much of the APE. Because of the dense grass, overall surface visibility within the study area was poor with some areas covered in sparse grasses having good to moderate visibility, primarily in the less steep eastern portions of the study area. All exposed bedrock and boulders were examined for the presence of archaeological features such as mortar cups.

## RESULTS

One previously unreported cultural resource was identified within the study area, and consists of a shallow mortar (MF1) located on a low bedrock exposure less approximately 0.5 m in size (Figure 5). Exposure of the ground surface surrounding the feature failed to identify any associated archaeological constituents, therefore the feature most likely would qualify for programmatic treatment as an isolated bedrock mortar, and would therefore not be eligible for inclusion in the National Register of Historic Places under Criterion D or the California Register of Historic Resources under Criterion 4. Consultation with local Native American groups would be required to assess NRHP and California Register of Historical Resources (CRHR) eligibility under Criteria A-C/1-3. Several isolated remnants of fence lines are located throughout the parcel (Figure 6). All are considered isolated historic features that lack integrity, and as such are not eligible for inclusion in the California Register of Historic Places or the National Register of Historic Places. They were therefore not further documented. Because no development of the Twilight Ride parcels is proposed near the location of the milling feature, implementation of the project would not result in significant impacts under California Environmental Quality Act (CEQA) or adverse effects as outlined in Section 106 of the National Historic Preservation Act.

## CONCLUSION

It is unlikely that additional cultural resources would be identified during any further studies that might be conducted in support of compliance with Section 106 of the National Historic Preservation Act and/or compliance with the CEQA. The records search, previous AECOM investigations, and research in the broader region indicate that the most prevalent types of cultural resources in the area are mining related features and prehistoric Native American sites, especially bedrock mortar features.

Additional historic-era cultural resources are also unlikely to be identified. Historic-era resources in this region are generally associated with mining and homesteading. These types of resources tend to be easily identifiable on the landscape; and it is highly unlikely that any historic-era resources were overlooked within the study area.

**Figure 4 Overview of Potential Pasture Area from Vehicle Parking Area – Facing South**

**Figure 5 Milling Feature**

**Figure 5 View of Remnant Fence Segment With Modern Metal Posts**

# Trail Network Expansion

CONFIDENTIAL

# Hidden Falls Regional Park Trail Network Expansion

# Cultural Resources Inventory Report

Placer County, California

Prepared for:
Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603

AECOM

August 2017

CONFIDENTIAL

# Hidden Falls Regional Park Trail Network Expansion

# Cultural Resources Inventory Report

## Placer County, California

Prepared for:

Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603


Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

A.J. Jordan
916.361.6449


AECOM

August 2017

# MANAGEMENT SUMMARY

AECOM was contracted by Placer County (County) Public Works and Facilities, Parks Division, to conduct a cultural resources survey for a project located on Placer Land Trust land and County-owned land. The project is a proposed expansion of the Hidden Falls Regional Park trail network. The County has prepared a Subsequent Environmental Impact Report (SEIR) and will prepare federal and state permit applications. AECOM conducted the original cultural resources survey for the 2009 Hidden Falls Regional Park Draft Environmental Impact Report (DEIR) (certified in 2010) and permit applications. The current study investigated the proposed trail network expansion and new and expanded parking lots.

Previous cultural resource surveys conducted in 2009 in support of the Hidden Falls Regional Park DEIR identified nine prehistoric sites and nine historic sites within the park boundaries. For the proposed trail network expansion, AECOM conducted an updated record search at the North Central Information Center of the California Historical Resources Information System in Sacramento for the proposed expansion areas. Pursuant to regulations implementing Assembly Bill 52, Placer County contacted Native American tribes that had requested inclusion in the planning process to identify any tribal cultural resources that may be affected by the project. The County received one response, from the United Auburn Indian Community. This correspondence did not indicate any specific concerns for the project; however, the tribe requested a copy of this technical report and the SEIR.

A pedestrian cultural resources survey of the proposed trail segments was conducted on December 6–8 and December 13–14, 2016, and on May 15–16 and June 7, 2017. Two historic-period cultural resources were identified during the survey: a series of stacked rock walls and a water conveyance ditch with stacked rock walls. These resources are not considered significant under the criteria for Section 106 of the National Historic Preservation Act or the California Register of Historical Resources. Therefore, the proposed trails and parking lots would have no adverse effects on historic properties.

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# ACRONYMS AND OTHER ABBREVIATIONS

| | |
|---|---|
| µ | microns |
| ADA | Americans with Disabilities Act |
| amsl | above mean sea level |
| APE | Area of Potential Effects |
| B.P. | before present |
| ca. | circa |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| County | Placer County |
| CRHR | California Register of Historical Resources |
| CUP | conditional use permit |
| DEIR | draft environmental impact report |
| DPR | California Department of Parks and Recreation |
| EIR | environmental impact report |
| GPS | global positioning system |
| HFRP | Hidden Falls Regional Park |
| MLD | Most Likely Descendent |
| NAHC | Native American Heritage Commission |
| NCIC | North Central Information Center |
| NPS | National Park Service |
| NRHP | National Register of Historic Places |
| OHP | California Office of Historic Preservation |
| PLT | Placer Land Trust |
| PRC | Public Resources Code |
| project | HFRP Trail Network Expansion Project |
| SEIR | Subsequent Environmental Impact Report |
| SYW&MC | South Yuba Water and Mining Company |
| USC | U.S. Code |
| USGS | U.S. Geological Survey |

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# 1 INTRODUCTION

Placer County (County) owns and operates Hidden Falls Regional Park (HFRP) near Auburn, California. The park opened in 2013 and has approximately 30 miles of multiuse trails and two waterfall overlooks. The popularity and usage of HFRP have grown rapidly. The County evaluated the environmental impacts under the California Environmental Quality Act (CEQA) of the park's establishment and operation in an environmental impact report (EIR) that was published in 2009 (EDAW|AECOM 2009) and certified in January 2010.

The County currently proposes to expand the HFRP trail network onto additional lands owned by the Placer Land Trust (PLT), where the County holds trail easement rights, and also onto land owned by the County. The County has prepared a Subsequent EIR (SEIR) for the proposed HFRP Trail Network Expansion Project (project) pursuant to State CEQA Guidelines Section 15162 to analyze the potential impacts of this expansion on the environment.

This cultural resources inventory report describes efforts to determine whether any potentially significant cultural resources may be present within the project's Area of Potential Effects (APE), and describes measures to be followed to protect any such resources.

## 1.1 PROJECT LOCATION

The project site is located in western Placer County, approximately 9 miles northwest of Auburn, 11.5 miles northeast of Lincoln, and 40 miles northeast of Sacramento (Figure 1). The existing HFRP encompasses approximately 1,200 acres in the Sierra Nevada foothills, consisting of the properties formerly known as Spears Ranch and Didion Ranch. The regional park has two access points, with a public parking area at Mears Place and space for a future parking area off of Garden Bar Road. Figure 2 shows the existing regional park; the recently acquired parcel off of Garden Bar Road; and the project area, including the boundaries of the parcels for which the County has easements to expand the trail network and regional roadways (e.g., State Route 49) and local roads.

Most of the land in the proposed trail expansion areas is located north and northeast of the existing regional park (Figure 3), in the areas known as Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres), and Liberty Ranch (313 acres). Trails would also cross the Kotomyan Preserve (160 acres) and Outman Big Hill Preserve (80 acres). In addition, trail connections are proposed from a recently acquired parcel off of Garden Bar Road to the west of the existing park, and from Taylor Ranch to the east, through parcels either owned or held in easement by the County.

With the exception of the privately owned Liberty Ranch parcel, which has a trail easement, the trail expansion areas are owned by PLT and are to be held as conservation land in perpetuity regardless of the project. Access to the trail expansion areas is currently constrained by limited roadways and surrounding private property and entry is limited to guided tours led by PLT. The County has trail easement rights within these properties.

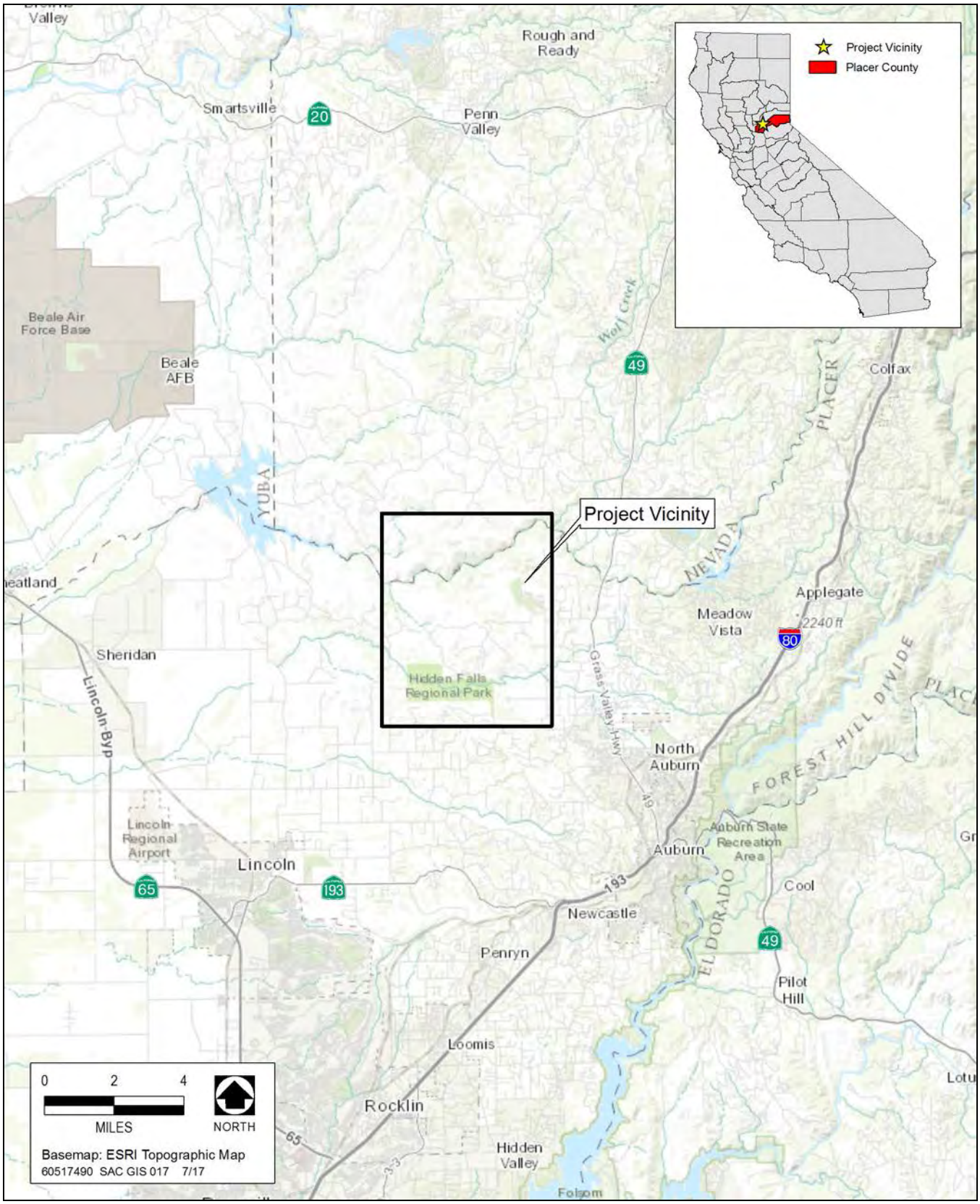


**Figure 1. Regional Location Map**

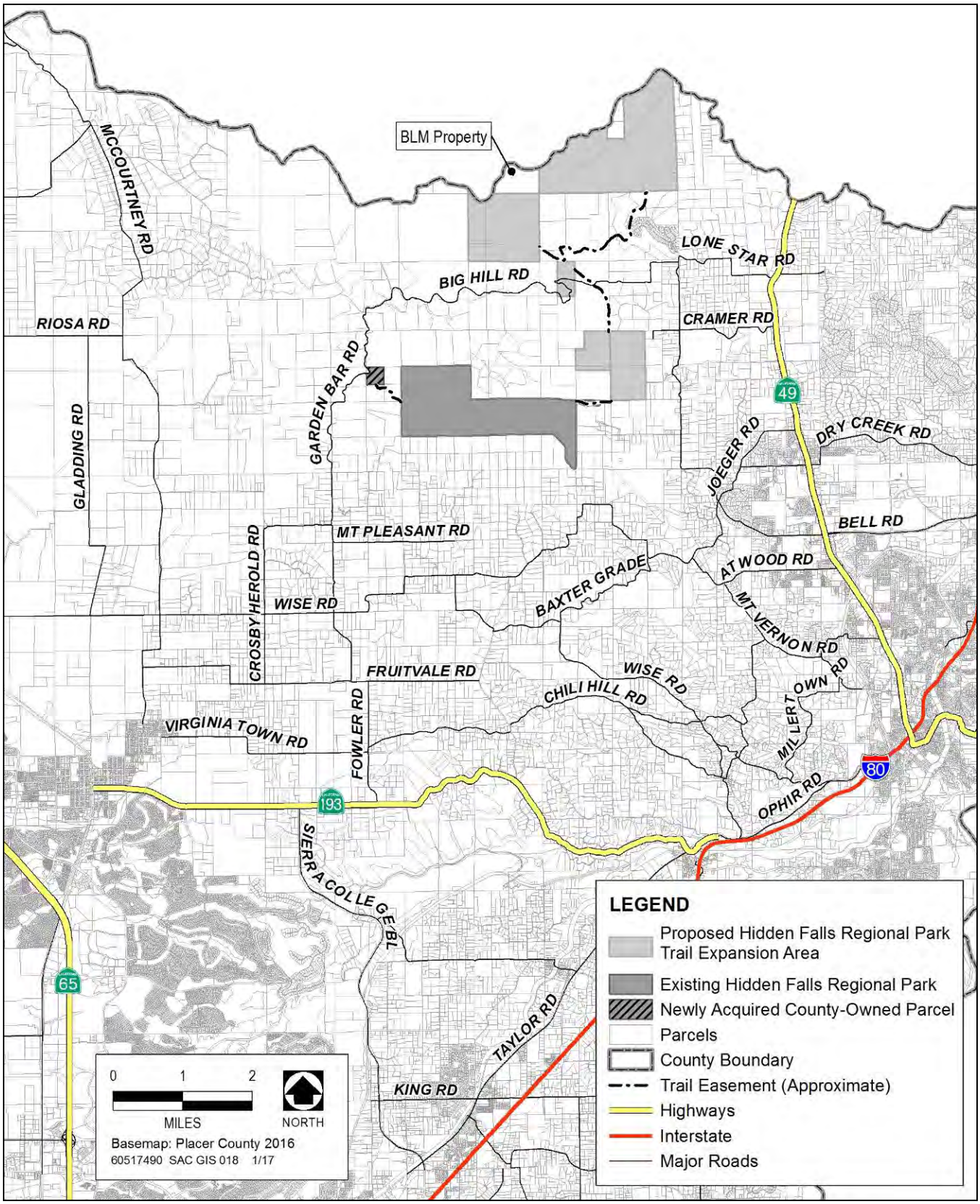


**Figure 2. Project Vicinity Map**

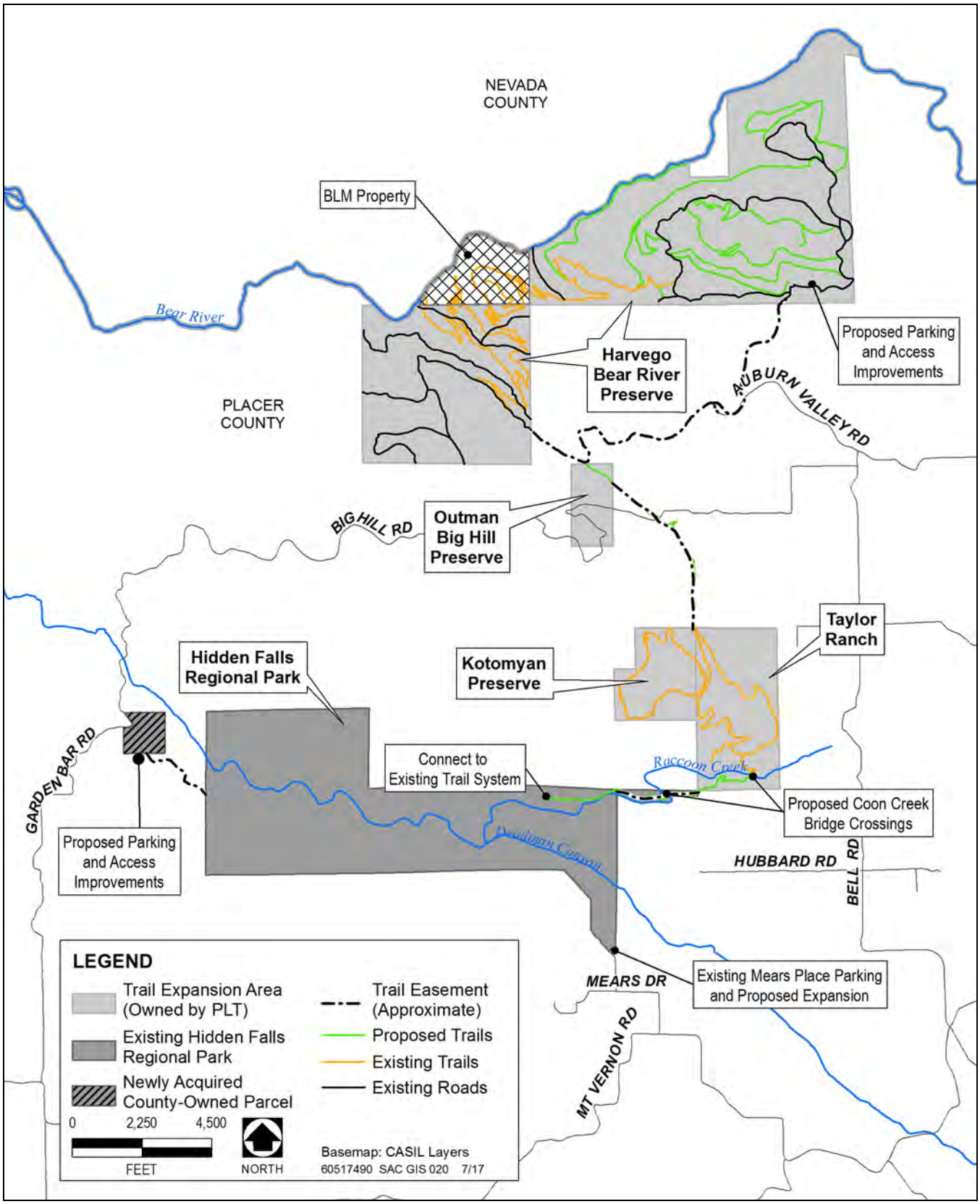


**Figure 3. Trail Expansion Areas**

Figure 3 shows the boundaries of the trail expansion properties and the proposed new trails. The expansion areas have few roads and include expansive undeveloped areas within the watersheds of Raccoon Creek (known on maps published before 2017 as “Coon Creek”) and the Bear River. The area is characterized by blue oak woodland and oak-foothill pine woodland and is included in the proposed *Placer County Conservation Plan,* currently under development by the County. The area also provides a wildlife migration corridor that connects to protected areas to the north, such as the Spenceville Wildlife Area in Yuba County.

The Harvego Bear River Preserve, Taylor Ranch, Kotomyan Big Hill Preserve, and Outman Big Hill Preserve (Figure 3) are owned in fee by PLT. Harvego Bear River Preserve (1,773 acres) has a working cattle ranch and an extensive network of existing ranch roads and some trails built by PLT and consists of oak woodlands and grasslands adjacent to the Bear River. Taylor Ranch (321 acres) has an existing 4-mile loop trail that also crosses the 160-acre Kotomyan Preserve to the west. Outman Big Hill Preserve (80 acres) has no existing trails.

The Liberty Ranch property (313 acres), a cattle ranch currently under Williamson Act contract, is privately owned and has no existing trails; however, PLT holds a conservation easement on the property, and the County has a dedicated trail easement within the property that connects to the other PLT-owned parcels. The County’s trail easement on the Liberty Ranch property is limited to a previously surveyed 25-foot-wide corridor, whereas the trail easements in the remainder of the expansion areas are “blanket” in nature and not limited to prior established corridors. Because of the nature of the easements owned by the County, there is less opportunity to refine or adjust trail alignments on the Liberty Ranch property than for the rest of the expansion area properties.

The recently acquired parcel west of the park (Figure 3) is characterized by blue oak and oak-foothill pine woodlands. This parcel connects to the park via an existing easement. The County-owned parcels and easement areas directly east of the park abut Raccoon Creek, and connect the existing park with the Taylor Ranch parcel.

The lands surrounding the trail expansion areas consist of rolling hills and comprise primarily private lands used for agriculture, grazing, and rural residences. The U.S. Bureau of Land Management owns the area between the two portions of the Harvego Bear River Preserve and south of the Bear River.

## 1.2 PROJECT DESCRIPTION

The County has partnered with PLT to preserve approximately 2,500 acres of open space located north and east of HFRP. These lands, as well as connecting areas directly east and west of the existing regional park that are either owned or held in easement by the County, would accommodate the proposed expansion of the park’s public trail network and associated facilities. The expanded trail network would link the regional park to the Bear River and provide vastly expanded recreation opportunities. Combining the 30 miles of existing trails in the park with additional existing and proposed trails in the trail network expansion areas would provide a regional network of more than 60 miles of multiuse trails. The expanded trails network would connect to the existing trail system in the regional park via existing easements between the park and existing trails in Taylor Ranch and Kotomyan Preserve, with additional connections through Liberty Ranch and Outman Big Hill Preserve to future and existing trails and ranch roads within the Harvego Bear River Preserve.

The County’s discretionary actions for the expanded trails network would include approval of an amended CUP covering the existing HFRP and the expansion areas, including the designated lands to the northeast, the parcel west of the existing park that was recently acquired by the County, and the areas east of the park that connect to Taylor Ranch. The amended CUP would cover:

- expanding the HFRP trails network from 30 miles to approximately 60 miles through the addition of existing trails and construction of new trails on the lands owned or held in conservation easements by PLT, or on lands owned by Placer County, or where the County holds trail easements;

- constructing two additional bridges over Raccoon Creek between the existing regional park's trail network and Taylor Ranch;
- adding parking and access-area improvements, including parking and access at Harvego Bear River Preserve for access to the northern areas of the expanded trail network and minor changes to the planned parking and access from Garden Bar Road to the west side of the park; and
- identifying and clarifying the type and size of events and facilities allowed within the existing HFRP and expansion areas.

## 1.3 DEFINITION OF UNDERTAKING

Section 301 of the National Historic Preservation Act (NHPA) defines a federal undertaking as "a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal Agency, including (A) those carried out by or on behalf of the agency; (B) those carried out with Federal financial assistance; (C) those requiring a Federal permit license, or approval; and (D) those subject to State or local regulation administered pursuant to a delegation or approval by a Federal Agency" (16 U.S. Code [USC] 470w[7]).

In addition, Section 106 of the NHPA states that "The head of any Federal agency…shall… prior to the issuance of any license…take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register [of Historic Places]" (16 USC 470f).

As proposed, the project would construct pedestrian bridges over Raccoon Creek. The construction of these bridges would affect waters of the United States; therefore, the project proponent must meet the requirements of Section 404 of the Clean Water Act, which requires a permit from the U.S. Army Corps of Engineers. The project is therefore considered an undertaking. The U.S. Army Corps of Engineers will be the lead federal agency for Section 106 compliance. National Environmental Policy Act review has not yet been initiated.

## 1.4 DEFINITION OF AREA OF POTENTIAL EFFECTS

The APE is the geographic area (both horizontal and vertical) within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties (e.g., properties that are listed in or eligible for listing in the National Register of Historic Places [NRHP]) (36 Code of Federal Regulations [CFR] 800.16[d]). The horizontal and vertical extent of the APE is dependent on the activities that are proposed by the project. Figure 4 shows the APE for the project. .

As noted above, the project would encompass multiple different activities:

- constructing new trails
  - The multi-use trails would be constructed using a combination of techniques, including by hand and by using a combination of small construction equipment. The trail width would vary depending on the type of trail. Multi-use trails would be approximately 5 feet wide. Trails (and bridges) designed to accommodate emergency vehicles would be 8–12 feet wide. Trail surfaces would be excavated using small, earth-moving equipment.
- constructing two bridges over Raccoon Creek
  - The bridges would be installed by constructing abutments on both sides of Raccoon Creek and spanning the creek by installing a bridge, likely with the use of a crane or helicopter. Streambank protection measures would be installed before construction to minimize habitat and water quality effects.
- adding or improving parking access at Harvego Bear River Preserve, Mears Place, and Garden Bar Road.

- The new and expanded parking areas would be constructed with heavy construction equipment (e.g., bulldozers, front-end loaders) as required for clearing and grubbing, grading, and excavation. Drainage systems would be installed adjacent to parking areas to collect storm water and minimize erosion.

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**Figure 4. APE Map.**

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# 2 REGULATORY CONTEXT

Cultural resources in California are protected by a number of federal, state, and local regulations and ordinances. The most frequently applied legislation consists of the provisions of Section 106 and CEQA that provide for the documentation and protection of significant prehistoric and historic period resources.

## 2.1 FEDERAL REGULATIONS

### *2.1.1 NATIONAL HISTORIC PRESERVATION ACT*

Section 106 of the National Historic Preservation Act of 1966 (16 USC 470f), as amended, requires that federal agencies, or those that they fund or permit, to take into account the effects of the undertaking on any historic properties listed on or eligible for listing on the NRHP and offer the Advisory Council on Historic Preservation and other interested parties an opportunity to comment on the actions. To determine whether an undertaking could affect historic properties, cultural resources (including archaeological, historical, architectural, and traditional cultural properties) must be inventoried and evaluated for inclusion on the NRHP. Cultural resources can be significant on the federal, state, or local level. The 36 CFR § 60.4 regulations describe the criteria to evaluate cultural resources for inclusion in the NRHP:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

(A) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(B) That are associated with the lives of persons significant in our past; or

(C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(D) That have yielded, or may be likely to yield, information important in prehistory or history

## 2.2 STATE REGULATIONS

### *2.2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT*

CEQA also provides a mechanism for protecting significant cultural resources at the state level. According to the State CEQA Guidelines (Section 15064.5[a][3]), a resource is generally considered historically significant if it meets the criteria for listing in the California Register of Historical Resources (CRHR) (Public Resources Code [PRC] Section 5024.1; California Code of Regulations, Title 14, Section 4852). An historical resource is defined as any site that:

- is listed in or determined to be eligible by the State Historical Resources Commission for listing in the CRHR, or is determined to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and
- is eligible for listing in the CRHR (criteria noted below); or

- is included in a local register of historical resources, as defined by PRC Section 5020.1(k), or is identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.l(g).

The CRHR includes resources that are listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC 5024.1, 14 California Code of Regulations 4850). The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on the importance of the resources to California history and heritage. A cultural resource may be eligible for listing in the CRHR if:

1. it is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

2. it is associated with the lives of persons important to local, California, or national history; or

3. it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or

4. it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The CRHR definition of integrity and its special considerations for certain properties are slightly different from those for the NRHP. Integrity is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance.” The CRHR further states that eligible resources must “retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance,” and lists the same seven aspects of integrity used for evaluating properties under the NRHP criteria. The CRHR’s special considerations for certain property types are limited to moved buildings, structures, or objects; historical resources achieving significance within the past 50 years; and reconstructed buildings.

If a cultural resource does not meet the criteria for inclusion on the CRHR but does meet the definition of a unique archaeological resource as outlined in the Public Resource Code (Section 21083.2), it is entitled to special protection or attention under CEQA. PRC Section 21083.2(g) includes the following definition:

> As used in this section, “unique archaeological resource” means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
>
> (2) has a special and particular quality such as being the oldest of its type or the best available example of its type, or
>
> (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

Treatment options under Section 21083.2 of CEQA include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation

or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a “unique archaeological resource”).

Public Resources Code Section 15064.5(e) of the State CEQA Guidelines requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, Section 15064.5(d) of the State CEQA Guidelines directs the lead agency to consult with the appropriate Native Americans as identified by the Native American Heritage Commission and directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

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# 3 BACKGROUND

## 3.1 ENVIRONMENT

The project is located in the foothill region of the Sierra Nevada Mountain Range. Elevations in the project area range from 290 m (820 ft) above mean sea level along Raccoon Creek and up to 500 m (1640 ft) along the ridges in the Harvego Bear River Preserve. Geologically, the area is characterized by soils derived from Copper Hill Volcanics (Wagner et a. 1987).

The climate of the region is classed as Mediterranean with cool, wet winters and dry, hot summers. Although this pattern is characteristic of the region in general, there can be marked differences in local climate and vegetation as temperatures are dependent on elevation and proximity to seasonal and perennial water sources. Temperatures are lower in depressions and small valleys, particularly during nights when cooler air moves downward, while it remains warmer on slopes and ridge tops. Because of the earlier ripening of some plant foods on ridge tops, many prehistoric resource gathering and processing sites tended to be located in these warmer areas, while winter village locations are located near perennial water sources.

The area also exhibits a diverse array of floral and faunal species that would have been present at least during more recent prehistoric periods and throughout historic times. Wildlife diversity within the mixed oak, foothill, and mixed evergreen woodlands, predominant throughout the area, tends to be high. Amphibians and reptiles found in these woodlands include Pacific tree frog (*Hyla regilla*), western fence lizard (*Sceloporus occidentalis*), and California kingsnake (*Lampropeltis getulus*). Common resident birds in these forests include acorn woodpecker (*Melanerpes formicivorus*), western scrub-jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), and wrentit (*Chaemaea fasciata*). Common mammals in these mixed woodlands include gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), and Douglas' squirrel (*Tamiasciurus douglasi*).(Deis 2007)

The current vegetation regime is somewhat affected by the use of the area for cattle grazing over the last few decades.

## 3.2 PREHISTORY

Archaeological research within the Sierra Nevada and lower foothill regions over the past several decades has resulted in a substantial amount of new information about prehistory. Researchers have proposed numerous cultural systems and related chronologies to trace cultural and technological change through time.

For the Sacramento Valley and foothill regions, Lillard and Purves (1936) recognized a three-part cultural sequence (Early, Middle, and Late horizons) that was derived from the archaeological analysis of midden and cemetery sites in Central California. This scheme was later described in more detail by Lillard et al. (1939) and was refined by Beardsley (1948 and 1954). In an attempt to unify the various hypothesized cultural periods in California, Fredrickson (1973, 1974, and 1993) proposed an all-encompassing scheme for cultural development, while acknowledging that these general trends may manifest themselves differently and there may be some variation between subregions. The general cultural periods used by Frederickson were the Paleo-Indian,; Early, Middle and Late Archaic; and Emergent (also called Late) periods. This terminology, with some adjustments, is still commonly used in much of California

Relevant to the project area is the document *Framework for Archaeological Research Management (FARM)* (Jackson et al. 1994) which proposes a tentative culture chronology and culture history for the North-Central Sierra Nevada. The proposed cultural chronology has been further refined through investigations conducted

within the South Fork American River watershed by Tremaine and Jackson (1994 and 1995), and Boyd (1998), and is synthesized in Jackson and Ballard (1999). Given the lack of radiocarbon associations within the Sierra Nevada that provide firm dates, Jackson and Ballard (1999) used 1,685 obsidian hydration rim measurements to obtain relative dates. The obsidian specimens were all sourced to the Bodie Hills source, approximately 10 miles north of Mono Lake in Mono County along the California/ Nevada border and were collected from 124 sites throughout North-Central Sierra Nevada. This extensive analysis provides the most recent and relevant cultural/technological chronology for the project area. Jackson and Ballard's (1999) cultural chronology is the basis for the following summary and terminology.

## *LATE PLEISTOCENE PATTERN AND PERIOD (>10,000 B.P.)*

There are no widely accepted archaeological sites in the Sierra Nevada foothills or eastern Sacramento Valley that date to the earliest human occupation of North America. Possible exceptions are CA-SAC-370 and CA-SAC-379, located near Rancho Murieta. These sites produced numerous bifaces, cores, and raw materials (which may be indicative of prehistoric quarrying operations) from gravel strata estimated to be 12,000–18,000 years in age (Moratto 1984). Contextually, interpretation of these sites is challenging because the artifact assemblages may have been redeposited and no organic materials suitable for radiocarbon dating were encountered. However, it is possible that cultural deposits dating to this time period may be covered with several meters of alluvium and have yet to be discovered.

## *EARLY HOLOCENE PATTERN AND PERIOD (CA. 10,000–7000 B.P.)*

Jackson and Ballard (1999) use the all-encompassing Western Pluvial Lakes Tradition to describe this broad time frame, which, as they point out, was first defined by Bedwell (1970) as a human adaptation to lake, marsh, and grassland environments that were prevalent around 11,000 years before present (B.P.); however, the tradition slowly disappeared circa (ca.) 8000–7000 B.P.

If the obsidian hydration rinds in excess of 8.2 microns (μ) (7000 B.P.) documented within the American River drainage represent prehistoric usage during the early Holocene, this may indicate regional usage away from the wetland environments established for the Western Pluvial Lakes Tradition (Jackson and Ballard 1999:243). Regardless of the land-use strategy, at the very least, it appears from limited data that the presence of peoples in the region at this time was quite limited.

In the surrounding regions of California, only small isolated locales (e.g., CA-CAL-S342 [Peak and Crew 1990] and CA-CAL-629–630 [under analysis by California State University, Fresno]) have thus far yielded substantial data indicating a presence by peoples along the western front of the Sierra Nevada before 7000 B.P., and both of these have been in the foothill regions south of the project area.

## *ARCHAIC PATTERN AND PERIOD (CA. 7000–3200 B.P.)*

Characterized by generally warm and dry climatic conditions interrupted by brief cool, wet conditions, this period appears to correspond with the appearance of handstones and milling slabs, suggesting that people were gathering and using more vegetal resources, such as seeds and other botanical constituents. Jackson and Ballard (1999:24) also suggest that the early part of this period (7000–4500 B.P.) can be defined by the presence of concave-base and side-notched obsidian bifaces on archaeological sites. These bifaces exhibit hydration rind thicknesses between 8.2μ and 5.6μ. Stemmed and large corner-notched obsidian projectile points occur during latter parts of this period (4500–3200 B.P.) and show hydration rinds between 5.6μ and 3.6μ.

Similarly, in the foothills region of Central California, as the climate became warmer and dryer, milling stones were found in increasing abundance, suggesting an emphasis on using plant resources and less focus on hunting. Flaked stone tools were formed primarily from locally procured materials (Moratto 1984). However, the remains of numerous faunal species are often found on sites dating to this period, and the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers indicates a varied and efficient subsistence system.

Sites in the Central Valley also indicate that a great deal of trade was taking place at this time, as evidenced by the presence of obsidian from outside the area, *Haliotis* and *Olivella* shell beads and ornaments, quartz crystals, and other exotic materials (Heizer 1949, 1974; Moratto 1984). Connections between the Great Basin and Central Valley appear to have been established at least by 4000 B.P., and possibly as early as 7000 B.P., as evidenced by the exchange of marine shell beads and other artifacts for obsidian from the east side of the Sierran crest. Many exotic items, such as the quartz crystals and calcite, alabaster, and schist artifacts, have their origins in the foothills. The presence of these materials at sites in the Central Valley indicates consistent contact with foothill peoples and possibly seasonal movements of groups. These seasonal migrations may have involved population shifts to higher elevations during the summer, and valley occupations during the winter (Moratto 1984). Although this was a phenomenon primarily of the Sacramento Valley and lower foothills, similar culture elements are found at elevations up to 3,000 feet amsl in the foothills of the western slope, suggesting that peoples of this time frame may have acted as “middlemen” within this trade network (Bennyhoff and Heizer 1958; Bennyhoff and Hughes 1983).

## ***SIERRAN PATTERN (CA. 3200–600 B.P.)***

This broad time period, comprising the Early and Middle Sierran periods (discussed further below), sees an expansion in the use of obsidian, which is interpreted to indicate an increase in regional land use, and the regular use of certain locales. This pattern begins with a return to cool, wet climatic conditions, where forays into the Sierra Nevada may have been by groups with resident populations in the western Sierra foothills, Central Valley, and/or Great Basin. No evidence of permanent, year-round habitation has been found in the American River watershed above 3,500 feet amsl, and it has been suggested that peoples may have timed their forays with the availability of the local resources. Jackson and Ballard (1999:45) suggest that increased use and adaptation is reflected in people’s reliance on acorns and their heavy exploitation of large game.

Using a model of site patterning first proposed by Jackson (1984) and corroborated by geographic information system modeling (Hunt 1999), the increased exploitation of resources during the latter portion of this time period (ca. post–1400 B.P.) is marked by the adoption of mortar technology. The distribution of mortars indicates that the use of this tool is most intense below the snowline, with considerable usage continuing within the black oak and sugar pine woodlands above the snowline, before decreasing in the alpine zone (Hunt 1999). Models of toolstone acquisition suggest that east-west trade routes existed during this period between the Sierran crest and the Central Valley (Markley and Day 1991; Day et al. 1996; McGuire and Bloomer 1996).

## ***EARLY SIERRAN PERIOD (CA. 3200–1400 B.P.)***

This period is related to obsidian hydrations rinds of around 5.6μ and less, and is marked by the abundant presence of milling slabs and handstones, a substantial increase in the production of obsidian tools, and a climatic shift to a cool, wet regime. Obsidian hydration rim readings are present between 5.6 and 3.6μ at major archaeological sites in the region, and these data are either missing or present at very low frequencies at small sites. These findings are cited as evidence of exploitation of the area by small social and residential groups that moved in response to resources, exploiting the resources within range of each prime or major locale. A warm, dry period that occurred around 2200 B.P. corresponds with a dip in the frequency of obsidian hydration rind measurements between 4.7 and 4.3μ. Ritter noted that evidence at CA-PLA-101 indicates that this was a period

of seasonal transhumance with similarities in artifact types (i.e., projectile points) found east of the Sierran crest, but that this similarity decreases below 2,500 feet amsl, which would include the current project area (Ritter 1971:528).

In the foothills region, sites from the roughly contemporaneous Upper Archaic period (2500–1000 B.P.) are often quite similar to those of the ensuing Middle Archaic, with features such as red ocher used in burial contexts, and cobble mortars, while “charmstones” and lanceolate point styles occur during both periods. However, during this time a much heavier reliance on acorns as a staple food developed, as evidenced by an increased number of mortars and pestles in the archaeological record. The documented permanent village sites or campsites closest to the project area are within Miner’s Ravine, Dry Creek, and Linda Creek, near modern-day Roseville (Palumbo 1966). From an analysis of time-sensitive artifacts (e.g., shell beads and projectile points) found at these locations, the sites appear to date from the beginning of this period. Similar periods of occupation were also documented in Auburn Ravine by Robinson (1967:122).

## *MIDDLE SIERRAN PERIOD (CA. 1400–600 B.P.)*

The Middle Sierran period begins at approximately 1400 B.P., which corresponds with a dramatic decrease in the use of obsidian, not only in the subregion, but throughout the Sierra Nevada (Hall 1983; Bouey and Basgall 1984). This also sees the introduction of bow and arrow technology. In the Sierra Nevada, two phases are proposed for this period: the Camino Phase (ca. 1400–800 B.P.) and the False Walrus Phase (ca. 800–650 B.P.). Widespread changes occur at similar time frames throughout Central California and the western Great Basin. Social disruption is inferred from changes in artifact assemblages, land use patterns, and a high incidence of violent death. This pattern is followed by relatively intensive land use, active trade, and the establishment of permanent settlements in some regions, inferred as reflecting increased populations (Jackson and Ballard 1999:250).

### CAMINO PHASE

The Camino Phase exhibits a pattern of low obsidian production, possibly resulting from a lack of established exchange patterns or less intensive use of the Sierra Nevada. For the corresponding Kings Beach Phase on the east side of the Sierra, Elston et al. (1994:17) suggest that the point types on the east side of the Sierra are identical in form to their counterparts in California. However, Deis (1999) has presented evidence suggesting that with the possible exception of the Oroville region, there appears to be a discontinuity in projectile point types between the eastern and western sides of the Sierra Nevada around 1400 B.P. Therefore, the crest of the Sierra Nevada may have been a formidable physical and/or cultural barrier between groups at this time. During the latter part of the Camino Phase, the use of bedrock mortars becomes well established and small projectile points with contracting stems and large, hafted bifaces, including large side-notched types, occur frequently (Ritter 1970; White and Origer 1987; Jackson and Ballard 1999:249).

### FALSE WALRUS PHASE

During the False Walrus Phase, it appears that obsidian use and associated land use decreased substantially. While some sites continued to be used seasonally, others such as the False Walrus Site (U.S. Forest Service Site No. 05-03-56-730) appear, based on the lack of obsidian with hydration rind thicknesses of 2.0 to 2.5µ, to have been abandoned entirely (Tremaine and Jackson 1995). Evidence showing a decline in seasonal use is also visible at CA-PLA-101, where the site served primarily as a seasonal hunting camp with a secondary use centering on the gathering and processing of acorns (Ritter 1971:536).

In the foothills region, from around 1000 B.P. to 500 B.P., manifestations of what Frederickson (1973, 1974) called the Early Emergent Period indicate that intensive fishing, hunting, and acorn gathering supported large, dense populations. The Emergent Period, or Late Period, is the Late Holocene period that sees the development

of many of the cultural traits present at the time of European Contact. Highly developed exchange systems had evolved and mortuary practices with elaborate ceremonialism indicate a well-stratified society. Earlier sites, however, still bear many similarities to the Late Period's Berkeley Pattern in the Central Valley, suggesting that the Late Period represents elements of local innovation and a blending of traits with the Archaic period (Moratto 1984). Diagnostic artifacts of the False Walrus Phase are *Olivella* lipped beads, "Banjo"-type *Haliotis* ornaments, elaborately incised bird bone whistles and tubes, and flanged sandstone pipes. The bow and arrow are thought to have appeared during this period, with small corner-notched contracting stemmed points, rectangular and disc-shaped *Olivella* beads, and magnesite cylinders.

### *LATE SIERRAN PERIOD (CA. 600–150 B.P.)*

Regionally, this period is characterized by continued intensive use of the western slope of the Sierra Nevada, including significant use of acorns, but with less of a focus on seeds; exploitation of fauna, including deer and rabbits; year-round occupation of sites below 3,500 feet amsl; and short-term seasonal occupation of mid- to high-elevation Sierran sites. The presence of single-component sites dating to this time period is given as evidence for this intensified use (Jackson and Ballard 1999:250). In some subregions, the use of the small points with contracting stems disappears abruptly and is replaced by small Desert Side-notched types, with the continued use of small corner-notched points. However, Jackson and Ballard (1999) suggest the possible reemergence of large corner-notched, stemmed, and contracting stemmed points during the latter portion of this period.

In the foothill region, during the contemporaneous Late (or Emergent) period, archaeological village sites generally correspond to those identified in the ethnographic literature. Diagnostic artifacts are small points with contracting stems, disk beads made of clam shell, and glass trade beads introduced near the end of the period, marking the arrival of European groups (Beardsley 1954:77–79; Elsasser 1978:44; Fredrickson 1984).

## 3.3 ETHNOGRAPHIC CONTEXT

Ethnographically, the project area is situated within the sphere of influence of the Nisenan (sometimes referred to as the Southern Maidu). The following brief review of the ethnographic literature is valuable in assessing the archaeological sites that are the static remains of past activity. However, archaeological data have the potential to reconstruct patterns of former dynamic cultural systems (Binford 1980). It is through the use of ethnographic data applied to archaeology that the archaeologist has the best chance to recreate past cultural adaptations (Binford 1980:5).

Kroeber (1925) recognized three Nisenan dialects: Northern Hill, Southern Hill, and Valley. The Nisenan territory included the drainages of the Yuba, Bear, and American rivers, and the lower drainages of the Feather River, extending from the crest of the Sierra Nevada to the banks of the Sacramento River. According to Bennyhoff (1961:204–209), the southern boundary with the Miwok was probably a few miles south of the American River, bordering a shared area used by both Miwok and Nisenan groups that extended to the Cosumnes River. It appears that the foothills Nisenan distrusted the valley peoples but had a mostly friendly relationship with the Washoe to the east. Elders recall intergroup marriage and trade, primarily involving the exchange of acorns for fish procured by the Washoe (Wilson 1972:33).

Several political divisions in the Nisenan territory, constituting tribelets, each had headmen in the larger villages. However, the relative levels of influence in these larger population centers are unknown. All of these larger villages were located in the foothills. More substantial and permanent Nisenan villages generally were not established on the valley plain between the Sacramento River and the foothills, although this area was used as a rich hunting and gathering ground. One tribelet consisted of people occupying the territory between the Bear River and the Middle Fork American River. According to Kroeber (1925:831), the larger villages could have had

populations exceeding 500 individuals, although small settlements consisting of 15–25 people and extended families were common. Several village sites are depicted by Wilson and Towne (1978:388) in the vicinity of present-day Auburn, with one ethnographically named village, *Tgi tgi*, located along Raccoon Creek near a town named Ewing, which would place the locale approximately 4 miles west of the project area.

Dance houses for political and ceremonial functions were located in major village sites and were semi-subterranean structures, excavated to a depth of 3–4 feet and constructed with large beams and two to four main support posts (Beals 1933:344). Other structures built on the village sites included sweathouses and cone-shaped dwellings constructed of a framework with a covering of bark slabs, brush, and animal skins. Smaller brush structures or sun shades for outdoor summer work were also present and most village sites had bedrock mortars directly within or very near the habitation areas.

Native American groups would have exploited any number of faunal and floral resources. However, as in many foothill and valley regions throughout California, various species of oak provided the most important staple food, although the black oak (*Quercus kelloggi*) was apparently the most preferred (Matson 1972:40). Acorn harvests in the early fall provided the region's native inhabitants with a reliable, large-scale food source that could sustain populations through the winter months. Other important floral foodstuffs that could be stored for long periods included nuts from the gray pine (*Pinus sabiniana*), buckeye (*Aesculus californica*), and hazelnuts (*Corylus rostrata*).

Nisenan seasonal harvests were often communal, and important social behaviors were intricately related to these harvests. Various roots, nuts, wild onion, wild sweet potato, and many varieties of grasses, berries, and fruits were also gathered at various times. Many were processed and stored for winter use, although fresh fruits such as various berries, wild plums, grapes, and other native fruits were likely consumed fresh. Studies conducted within the project vicinity indicate that Native Americans deliberately burned large acreages to increase forage and improve habitat, clear the areas around habitation sites, kill insects, improve wild seed crops, and facilitate travel and hunting (Deal and Bennett 1996; Deal and Alblinger 1998), which is consistent with work conducted by Anderson (1990, 1991, 1993) and Anderson and Nabhan (1991).

The Nisenan used various techniques and weapons for hunting, including the bow and arrow, drives, and decoys. They used nets, traps, rodent hooks, and fire when hunting small game. Fish could be caught with nets, gorges, hooks, and harpoons within the larger perennial drainages of the foothill regions. One technique apparently involved using soap root and turkey mullein to poison the water so fish could be gathered easily. Freshwater clams and mussels were gathered in the larger waterways, such as the American River. Other aquatic food sources available to native populations near the project area would have included fish such as salmon and sturgeon, which would have been netted or caught with the aid of weirs.

The decimation of the Nisenan culture in the 19th century as a result of European colonization, coupled with a reluctance to discuss Nisenan spiritual beliefs and practices, makes it difficult to describe these practices in any detail. However, historic records document a number of observances and dances, some of which are still performed today, that were important ceremonies in early historic times. The Kuksu Cult, the basic religious system noted throughout Central California, appeared among the Nisenan. Cult membership was restricted to those initiated in its spirit and deity-impersonating rites. However, the Kuksu Cult was only one of several levels of religious practice among the Nisenan. Various dances associated with mourning and the change of seasons were also important. One of the last major additions to Nisenan spiritual life occurred sometime shortly after 1872 with a revival of the Kuksu Cult as an adaptation to the Ghost Dance religion (Wilson and Towne 1978).

## 3.4 HISTORIC CONTEXT

### *GOLD RUSH ERA*

The Sierra Nevada foothills and Sacramento Valley were virtually unknown by Europeans other than early Spanish explorers in the years before the Gold Rush. After gold was discovered at Coloma on the South Fork American River in January 1848, a wave of gold seekers descended on California, including the foothill and mountain regions of the Sierra Nevada. The 1850 U.S. Census put the population of Placer County at 11,417: 6,945 whites, 3,019 Chinese, 89 blacks, 634 other foreign races, and 730 Native Americans (U.S. Census 1850). The population was likely larger, however; the census was biased against minority groups, which were underrepresented.

Mining sites consist of concentrations of artifacts, and their systems reflect the myriad of operations and technologies that have been used in the area. These cycles of occupation and abandonment create layers of components of mining technology. Systems at mining sites are horizontally stratified, with previous operations often altered or obliterated, and often appear discontinuous with the underground structure (Hardesty 1988:11–12). Many times only fragments of technologies and operations are visible. For example, Lindstrom (1989:38) found that during placer mining operations, finer sediments were carried away in the washing process, and only larger cobbles or boulders remained at the site.

Mining camps were ubiquitous in mid–19th century Placer County. Some of the known camps farther upslope along the American River included Dutch Flat, Horseshoe Bar, Smith's Bar, and Iowa Hill. Two camps in the vicinity of the current project area are Gold Hill and Virginiatown, along Auburn Ravine, approximately 5 miles south of the project area.

Gold Hill, in the Ophir Mining District, was organized as a town in 1852. The community had a sizable population, as indicated by the 444 votes cast in the 1852 presidential election (Hoover 1990:262). Virginiatown was founded in June 1851. The first railroad in California, built in 1852 by Captain John Brislow, carried ore to Auburn Ravine (Gudde 1975:360; Hoover 1990:262). Virginiatown boasted a population of more than 2,000 by 1858, and a post office named Virginia was located there between 1858 and 1860. The county directory indicated that a lack of water prevented development until 1861, when a ditch from the Bear River could be built. It was at Virginiatown that Philip Armour had his butcher shop, which is said to have been the nucleus of the great Armour meat packing business in Chicago (Gudde 1975:360).

Another town, Whiskey Diggins southwest of the project area, appears to have been formed around 1855 (Foster and Foster 1994). In 1876, the community changed its name to Valley View. After the turn of the 20th century, the community became a resort named Kilaga Springs, because of its healthful mineral waters.

Easily mined deposits along perennial streams and rivers were depleted rapidly during the initial stage of the Gold Rush, resulting in a need to divert water to remote locations for placer mining. Several water conveyance systems were used to divert water. One system, the Whiskey Diggins Canal, passes through the southern portion of the present-day HFRP. The canal was constructed in the 1850s by the Gold Hill and Bear River Water Company to divert water from Deadman's Ravine. The water conveyance system was subsequently sold to a Mr. Hall in 1861. After three changes in ownership during the 1870s, the South Yuba Water and Mining Company (SYW&MC) purchased the water conveyance system in May 1890. Pacific Gas and Electric Company purchased the entire SYW&MC system, including the Whiskey Diggins Canal, in 1905, and in 1933 sold the canal to the Nevada Irrigation District. By the late 19th century, the increase in new mining camps appearing in Placer County slowed considerably, and other economic pursuits such as ranching and agriculture became the backbone of the county's economy.

### *RANCHING AND AGRICULTURE*

Ranching and agriculture, originally support systems that provided food to the miners, grew to become dominant industries. As thousands of miners poured into the area during the early 1850s, farmers and ranchers put additional acreage into production to meet the demand for potatoes, flour, and various dairy products.

The first of such settlements in Placer County was Sicard's Ranch, a Mexican land grant on the south bank of the Bear River, west of the project area. The grant was given to Theodore Sicard in 1844. Sicard, a French sailor, built an adobe house on the land in 1846, which later became a prominent stopping place for travelers on the way to Sutter's Fort in Sacramento. Sicard and fellow countryman Claude Chana, who had arrived at the ranch in late 1846, planted peach and almond trees, which became the start of the commercial orchard business in the Sacramento Valley. Chana later bought the Sicard grant and sold the products of his orchard, vineyard, and vegetable garden to area miners (Hoover et al. 1990).

## 3.5 SIGNIFICANCE REQUIREMENTS

This inventory report is intended to identify the presence of cultural resources in the APE that are considered significant under NRHP or CRHR criteria, and are therefore determined to be historic properties; determine whether the project would adversely affect any historic properties; and provide mitigation measures to limit potential impacts on historic properties.

Given the region's prehistoric, ethnographic, and historic contexts as described above, cultural resources in the project area are expected to reflect the mining, ranching, and agricultural activities that occurred in the general project vicinity. However, prehistoric cultural resources may also be present, in the form of bedrock milling features or small campsites.

### *PREHISTORIC RESOURCES*

Based on documentary investigations, Native American consultation, and fieldwork, prehistoric resources that may be uncovered include local manifestations of regional subsistence, settlement, and exchange. Typically, prehistoric resources are bedrock milling features; the remains of human habitation including midden soils, lithic, and faunal remains; and lithic scatters.

To be recommended as significant under NHPA Section 106 or the State CEQA Guidelines, prehistoric sites must possess integrity, and must qualify under one or more of the four NRHP/CRHR significance criteria described in Chapter 2, as explained further below.

- **NRHP Criterion A or CRHR Criterion 1:** The resource must be associated with events significant to the broad patterns of history. Resources must contain some evidence of such an association. For prehistoric sites, there should be evidence that the site was especially important to the Native American residents of the area as a village, meeting place, or ceremonial site, or in some other capacity. Examples of such evidence include large numbers of residential features and ceremonial objects.

- **NRHP Criterion B or CRHR Criterion 2:** The resource must be associated with the lives of persons significant in the past. Documentary or artifactual evidence could demonstrate, or oral tradition could attest to, such an association. If the evidence were not artifactual, it would have to specify the site's location with sufficient accuracy to allow unequivocal identification of the location. Artifactual evidence would have to support the claim of association, or to reasonably corroborate documentary or testamentary claims.

- **NRHP Criterion C or CRHR Criterion 3:** The resource must embody the distinctive characteristics of a type, period, or building method; represent the work of a master; possess high artistic value; or represent a distinguishable entity whose components lack individual distinction. The presence of prehistoric architecture or rock art would most likely qualify a site under NRHP Criterion C or CRHR Criterion 3.

- **NRHP Criterion D or CRHR Criterion 4:** The resource must contain, or must be likely to contain data, that can further our understanding of prehistory. These data must also be in a context that has not been significantly affected by natural processes or subsequent cultural activities.

## *HISTORIC RESOURCES*

A review of historic documents indicates that historic mining and ranching and agriculture constitute the primary historic themes that may be present in the project area. The discussions below address NRHP/CRHR eligibility considerations and integrity considerations for these themes, along with the theme of irrigation and water conveyance systems.

### MINING-RELATED FEATURES

The remains of small-scale operations, consisting of prospects, placer mining, and associated refuse, are the types of mining-related sites most likely to be encountered in the project area. These features are limited in duration of use and scale, but they have the potential to provide data not often described in the historic literature.

#### NRHP/CRHR Eligibility Considerations

To be considered eligible under NRHP and/or CRHR criteria, mining-related properties must:

- display evidence of a permanent operation that contributed to the development of mining or mining technology in the region;

- exhibit evidence of new approaches or represent innovative approaches to mining; or

- be the first or last of an era.

The presence of archaeological deposits may qualify the site as eligible under NRHP Criterion D and/or CRHR Criterion 4 if the data have the potential to address one or more of the research issues mentioned above. Refuse deposits may provide information about the success of the mining operation, the ability of the operators to adjust to changing technology, operations during a particular period of history, or the lifeways and/or composition of work groups.

Although individual resources may be determined ineligible for inclusion in the NRHP/CRHR, they also may be contributing elements of a mining landscape, a subtype of a rural historic landscape (NPS 1990:3). A rural historic landscape is defined as “a geographical area that historically has been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features” (NPS 1990:1–2). These landscapes are not planned, but evolve over a period of time (Hardesty 2003).

#### Integrity Considerations

Mining features must retain the character and feeling of the original resource, with limited impacts from natural processes or subsequent historic modifications or impacts. Associated archaeological deposits must be in the original matrix and not mixed with subsequent operations or other historic events.

## RANCHING AND AGRICULTURE

Since the Gold Rush, the project area has been dominated by ranching and farming. The heritage of farming and ranching in the project vicinity dates to the 1850s, when settlers established ranches to meet the food demands of mining operations. Local ranchers and farmers have experienced many economic fluctuations since those early years, and rural development has replaced many farms and ranches recently.

Permanent ranch or farming operations with complexes of buildings have been documented in the cultural resources inventory for HFRP. The following types of facilities and remains are likely to be encountered:

- Water conveyance systems, including dams and catchment basins
- Corrals
- Barns and sheds
- Structural remains
- Refuse dumps and scatters

### NRHP/CRHR Eligibility Considerations

To be eligible for the NRHP or CRHR, ranching and agriculture–related resources must display the characteristics summarized below.

- **NRHP Criterion A or B or CRHR Criterion 1 or 2:** The resource must have been permanent and used for a number of sequential years, and thus must be capable of interpretation for its role in the development of the local livestock and farming industry. Alternatively, the site could be associated with the career of a person important in the local evolution of the livestock or farming industry. In this case, to be considered eligible under NRHP Criterion B or CRHR Criterion 2, the locale must have been used and occupied by an important personage, not simply owned or remotely operated by the person.

  The resource also must maintain enough of its historic fabric to make its function readily apparent. The properties may be found either singularly or as part of a complex or system. In a complex or system, the contributing resource must be at least 50 years old. The features or objects must be in their original location or their location during the period of significance, and the setting must convey their historic feeling or function. For architectural resources, additions or modification must not impair the quality of the historic fabric (design, materials, and workmanship) of the individual resource.

- **NRHP Criterion D or CRHR Criterion 4:** The resource must be able to offer significant quantities of information to address research questions and retain a sufficient degree of integrity (as summarized below).

Sites and features in the project area tend to have minimal built or constructed features and generally are considered more important for the information they may contain than for their architectural presence. Thus, these resources generally will not be considered eligible under NRHP Criterion C or CRHR Criterion 3.

### Integrity Considerations

For archaeological expressions to be considered to possess integrity, all of the aforementioned properties, features, and site types must not exhibit evidence of extensive post-depositional disturbance.

For farms and ranches, the resource must convey its historic function and modern repairs. Additions and maintenance activities must not have significantly impaired the resource's historic fabric and character and its relationship to ranching operations. Those same activities are also considered when determining the site's integrity as an archaeological resource, because they would disturb the archaeological matrix.

## IRRIGATION AND WATER CONVEYANCE SYSTEMS

Historically, adequate water has been available for use in Placer County; however, the water was not always conveniently located to meet the irrigation needs of farming, ranching, and mining. Securing water supplies has been a key element of successful Euro-American use of Placer County and California as a whole. During the past 150 years, growing numbers of people in California have recognized the need for adequate and reliable water supplies, at first to supply the needs of miners and later to supply electrical generation facilities and enable irrigation. This recognition led to the development of water storage and distribution systems, which can be categorized by their funding type (private or public), size and scale (small to very large), number of users served, and type of water usage.

The property types pertinent to the study area and the theme of water resource development are irrigation and their component elements, consisting of dams, canals, ditches, laterals or spreaders, diversion dams, head gates, pipes, siphons, drop boxes, flumes, and silt boxes. In the project area, the purpose is to provide irrigation water for agricultural expansion on arid lands. These resources may be eligible under NRHP Criteria A–C or CRHR Criteria 1–3. These resources may also be eligible under NRHP Criterion D or CRHR Criterion 4 if associated archaeological deposits are present. Beyond that, any features must be among the earliest in a given drainage or watershed. For this region of California, any ditches and their water rights must be dateable to the mid-19th or early 20th century (1850–1910). The property types and registration requirements outlined below were determined based on archival research and a review of published sources that show the types of ditches recorded and expected to be found in the study area.

### NRHP/CRHR Eligibility Considerations

To be eligible for the NRHP or CRHR, resources related to irrigation and water conveyance systems must meet the requirements summarized below.

- **NRHP Criterion A or CRHR Criterion 1:** Irrigation and water conveyance systems (e.g., diversion dams, head gates, pipes, canals, siphons, drop boxes, flumes, silt boxes) must be associated with one or more historic themes important to the development of the region, and must clearly portray that theme. In addition, the features must be good examples of those systems.

- **NRHP Criterion B or CRHR Criterion 2:** The components or system must be associated with an individual or group of individuals who were important in the development of water conveyance systems, ranching, or farming. Furthermore, the associated individuals must have been actively engaged in the operations, and not merely investors or owners.

- **NRHP Criterion C or CRHR Criterion 3:** Construction materials, features, or methods of construction must be representative of irrigation systems, with engineered elements that are significant or that demonstrate an evolution in the construction of irrigation systems.

- **NRHP Criterion D or CRHR Criterion 4:** Archaeological deposits associated with the resources must be capable of use to further define methods of construction, time periods, cultural affinity, or uses of the system.

### Integrity Considerations

Segments of irrigation and water conveyance systems may be found either singularly or as a system. A singular element's function, purpose, and role within the larger system should be capable of interpretation. The feature or object must be in its original location or the location during the period of significance, and the setting must be present to convey a historic feeling and function. Although additions or modifications must not impair the quality or

the historic fabric (e.g., design, materials, and workmanship) of the individual element or system, ditches and their associated delivery systems must be viewed as dynamic when assessing integrity. For example, ongoing maintenance activities must be conducted periodically, which will cause changes to any given ditch. However, substantial upgrades, such as adding concrete lining or converting a dirt ditch to pipe, will be considered to have compromised the historic fabric and feeling. Therefore, a substantially altered ditch, or the altered portions, will be considered ineligible.

In summary, features of irrigation and water conveyance systems should be clearly evident, not filled in or substantially modified, and accurately dated. The only exceptions applicable to these property types occur when the property is representative of a once-larger property category that has now become relatively scarce.

# 4 PRE-FIELD INVESTIGATIONS

Cultural resource investigations for the project consisted of several elements: Native American consultation, pre-field research including previous investigations, and historic documentation. All aspects of the cultural resource study were conducted in accordance with guidelines outlined in the federal *Secretary of the Interior's Standards and Guidelines for the Identification of Cultural Resources* (48 *Federal Register* 44720–44723) and the California Office of Historic Preservation's *Instructions for Recording Historical Resources* (OHP 1995).

## 4.1 RESULTS OF RECORDS SEARCH

A records search of previously recorded archaeological sites and previously conducted cultural resources inventories in and within ¼ mile of the APE was conducted at the North Central Information Center (NCIC) at California State University, Sacramento, on November 28, 2016. A records search assists in determining whether a proposed project could affect known cultural resources and in identifying the types of cultural resources that may be encountered. Records maintained by the NCIC include California Department of Parks and Recreation (DPR) Series 523 archaeological site records, site location maps, maps of previous study coverage, NRHP nomination forms, and relevant historical documentation and maps. The NCIC research also included a review of the following sources, all of which are on file at the information center:

- NRHP (National Park Service 1996, and computer updates 1966–2015
- CRHR (State of California, through 2015)
- California Points of Historical Interest (State of California, 1992 and updates)
- Historic Spots in California (State of California, 2002)
- Directory of Properties in the Historical Resources Inventory (State of California, 1976 and updates)
- California Historical Landmarks (California Office of Historic Preservation, 1990)

This review indicated that five cultural resources inventories have been conducted within ¼ mile of the APE (Table 1).

No cultural resources have been recorded within the APE. A total of 28 prehistoric and historic archaeological sites have been recorded within ¼ mile of the APE, PLT parcels, or private parcels with trail easements (Table 2). Resources generally consist of prehistoric bedrock milling features and historic habitation, mining, or ranching sites.

**Table 1. Previously Recorded Cultural Resource Inventories within 1/4 Mile of the Area of Potential Effects**

| Report # | Authors | Title | Date |
|---|---|---|---|
| 5013 | Johnson, J., and B. Eddy | *Garden Bar Dam and Reservoir Water Power Project FERC No. 522* | 1988 |
| 5773 | Johnson, J. | *Archaeological Survey of 73.4 Miles of Nevada Irrigation District Canals and Ditches in Placer and Nevada Counties, California* | 1972 |
| 8475 | Deis, R. | *Cultural Resources Inventory and Assessment, Hidden Falls Regional Park Project* | 2007 |
| 8476 | Foster, J., and D. Foster | *An Archaeological and Historical Resources Survey and Impact Assessment of the Hidden Falls Project Area, Auburn, California* | 1994 |
| 9168 | Neuenschwander, N., D. Osanna, and C. Whittingham | *Auburn Valley Country Club Units 3 and 5* | 1996 |

Notes: FERC = Federal Energy Regulatory Commission
Source: Data compiled by AECOM in 2017

**Table 2. Previously Recorded Cultural Resources within ¼ mile of APE and PLT parcels or parcels with trail easements.**

| Site # | Description | Recorded | Report | NRHP/CRHR Eligibility |
|---|---|---|---|---|
| P-29-546/ CA-NEV-488 | Prehistoric bedrock milling feature and lithic scatter; historic mining/habitation | 1985 | 5013 | Potentially Eligible |
| P-31-654/ CA-PLA-528H | Historic hearths, ditch alignment | 1985 | 5013 | Not Eligible |
| P-31-656/ CA-PLA-530H | Historic structure pad, rock alignment | 1985 | 5013 | Not Eligible |
| P-31-657/ CA-PLA-531H | Historic water conveyance (dam and ditch) | 1985 | 5013 | Not Eligible |
| P-31-3013/ CA-PLA-2077H | Historic placer mining operation with pits, tailing piles, and trenches | 2006 | 8475 | Not Eligible |
| P-31-3014/ CA-PLA-2078H | Historic ranch site with house foundation, water conveyance system, rock cairns, residences, and outbuildings | 2006 | 8475 | Not Eligible |
| P-31-3015/ CA-PLA-2079 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3016/ CA-PLA-2080 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3017/ CA-PLA-2081 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3018/ CA-PLA-2082 | Historic concrete dam and diversion canal | 2006 | 8475 | Not Eligible |
| P-31-3019/ CA-PLA-2083 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3020 | Historic placer mining operation with pits, tailing piles, and trenches | 2006 | 8475 | Not Eligible |
| P-31-2021 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3022/ CA-PLA-2084 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3023 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3024 | Prehistoric bedrock milling features | 2006 | 8475 | Potentially Eligible |
| P-31-3025 | Prehistoric cupule boulder | 2006 | 8475 | Eligible |

| Site # | Description | Recorded | Report | NRHP/CRHR Eligibility |
|---|---|---|---|---|
| P-31-3026 | Historic water conveyance (canal) | 2006 | 8475 | Not Eligible |
| P-31-3027 | Historic stacked rock pile | 2006 | 8475 | Not Eligible |
| P-31-3028 | Historic debris (cast iron stove) | 2006 | 8475 | Not Eligible |
| P-31-3029/ CA-PLA-2085 | Prehistoric bedrock milling features | 1994 | 8476 | Not Eligible |
| P-31-3030/ CA-PLA-2086H | Historic ranch with barn, cattle chute, corral, and scattered artifacts | 1994 | 8476 | Not Eligible |
| P-31-3031/ CA-PLA-2087H | Historic foundation, well, and trash scatter | 1994 | 8476 | Not Eligible |
| P-31-3032/ CA-PLA-2088H | Historic road alignment | 1994 | 8476 | Not Eligible |
| P-31-3036/ CA-PLA-2092H | Historic Whiskey Diggins canal | 1994 | 8475, 8476 | Not Eligible |
| P-31-3039/ CA-PLA-2076H | Historic structure pad, chimney, and trench | 2006 | 8475 | Not Eligible |
| P-31-3292 | Historic rock wall | 1996 | 9168 | Not Eligible |
| P-31-3296 | Prehistoric lithic flake | 1996 | 9168 | Not Eligible |

Notes: CRHR = California Register of Historical Resources; NRHP = National Register of Historic Places
Source: Data compiled by AECOM in 2017

## 4.2 HISTORIC MAPS

Historic maps were reviewed to define past landscape conditions and determine what buildings or structures may have existed in or near the project area. The 1856, 1868, and 1876 General Land Office plat maps do not depict any structures or roads in the APE (see Figure 5). Few features are indicated in the surrounding area; features included on maps are dry ravines, Raccoon Creek (noted as “Dry Creek”), cultivated fields, and the occasional road. North of the project area, in Nevada County, Township 14 North, Range 7 East is noted as having “Rolling Hills with scattering Oak and Pine Timber” ( Figure 5).

## 4.3 NATIVE AMERICAN HERITAGE COMMISSION SACRED LANDS SEARCH AND CONSULTATION

AECOM contacted the Native American Heritage Commission (NAHC) in Sacramento and requested a list of tribal organizations and individuals affiliated with the project area and a search of the NAHC Sacred Lands Files. The Sacred Lands Files search revealed that no known sites of cultural or spiritual importance to the present-day Native American community are known to exist in the project area. The NAHC also provided contact information for groups and individuals affiliated with the project area (Table 3).

Placer County sent letters to each contact provided by the NAHC. One response was received from the United Auburn Indian Community. Although this correspondence did not indicate any specific concerns regarding the project, the tribe requested a copy of this technical report and the SEIR. Copies of all correspondence are presented in Appendix A.

**Table 3. Native American Contacts Provided by the Native American Heritage Commission**

| Individual | Address | Affiliation |
|---|---|---|
| Grayson Coney, Cultural Director | Tsi-Akim Maidu<br>P.O. Box 1316<br>Colfax, CA 95713 | Maidu |
| Don Ryberg, Chairperson | Tsi-Akim Maidu<br>11442 Butler Road<br>Grass Valley, CA 95945 | Maidu |
| Gene Whitehouse, Chairperson | United Auburn Indian Community of the Auburn Rancheria<br>10720 Indian Hill Road<br>Auburn, CA 95603 | Maidu/Miwok |
| Nicolas Fonseca, Chairperson | Shingle Springs Band of Miwok Indians<br>P.O. Box 1340<br>Shingle Springs, CA 95682 | Miwok/Maidu |

Source: Data compiled by AECOM in 2017

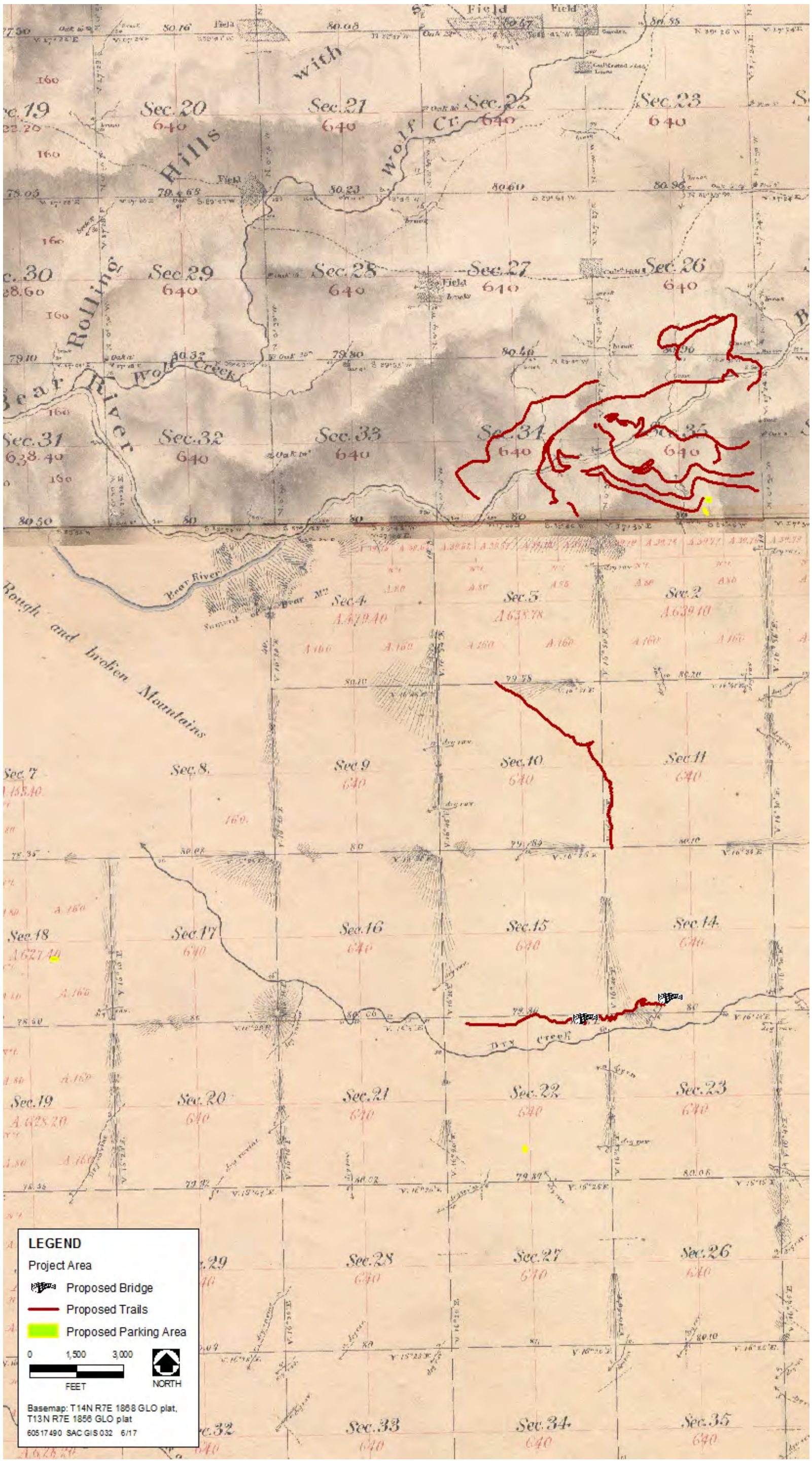


**Figure 5. Historic Map—General Land Office Plat, Township 14N, Range 7E (1868), T13N R7E (1856).**

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# 5 FIELD INVENTORY

Although no sites and no archaeological investigations have been documented within the APE, previous studies and information provided by the NCIC indicate that the project area and the surrounding vicinity are sensitive for containing evidence of Native American occupation, early mining, and homesteads. This chapter describes the results of a field inventory conducted for the project, indicates whether any newly-documented resources identified in the APE would be considered eligible for listing in the NRHP/CRHR, and provides management recommendations.

## 5.1 SURVEY METHODOLOGY

AECOM cultural resources specialists Amy Jordan, PhD, and Laura Cook conducted an intensive field survey of the proposed trail segments and parking lots on December 6–8 and December 13–14, 2016, and May 15–16 and June 7, 2017 (Figure 6). Representatives from the United Auburn Indian Community were informed of the fieldwork but did not elect to participate. Consistent with the Secretary of the Interior's standards and guidelines, the proposed parking lots were surveyed using parallel 10-meter transects. Trail segments were surveyed in transects of 3 meters or less, depending on vegetation and terrain. The trail with would not exceed approximately 12 feet (3.65 meters). Rock outcrops were examined carefully for the presence of milling features and rock art. Areas of high archaeological sensitivity (i.e., margins of drainages, areas of gentle terrain) were closely scrutinized. Cut banks, tree fall, and rodent back dirt were examined for evidence of subsurface cultural deposits.

The surveys were guided by the use of a Trimble GeoXH 6000 series handheld global positioning system (GPS) unit. The GPS readings were cross-checked against the topographic features represented on a U.S. Geological Survey (USGS) 7.5-minute quadrangle map with a projected North American Datum of 1983 Universal Transverse Mercator grid, as well as aerial photographic images provided by the County.

When a new cultural resource was encountered during the survey, its location was plotted on the appropriate USGS 7.5-minute topographic map. All sites and relevant features were mapped using the GPS technology mentioned above. However, because of dense vegetation, satellite coverage in some portions of the project area was less than ideal.

Site information was recorded on appropriate DPR Series 523 forms in the field. Additional notes were taken to aid in the documentation of more complex sites. A Primary Record (DPR 523A) and an Archaeological Site Record (DPR 523C) was completed for each documented resource.

Survey conditions were variable, ranging from open oak savanna (Figure 7) with 75–100% surface visibility to thick, overgrown blackberry bramble or poison oak (Figure 8), and gentle slopes of 7° or less (Figure 9) to steep slopes of approximately 15° or greater (Figure 10).

## 5.2 SURVEY RESULTS

The inventory of the project area identified two historic cultural resource sites: a series of stacked rock walls and a water conveyance ditch with associated features. These two sites, HF-2016-01 and HF-2017-01, reflect the themes of ranching and mining, respectively, and are discussed in detail below. The locations of these resources are shown in Figure 11 and Figure 12. Site documentation is presented in Appendix B.

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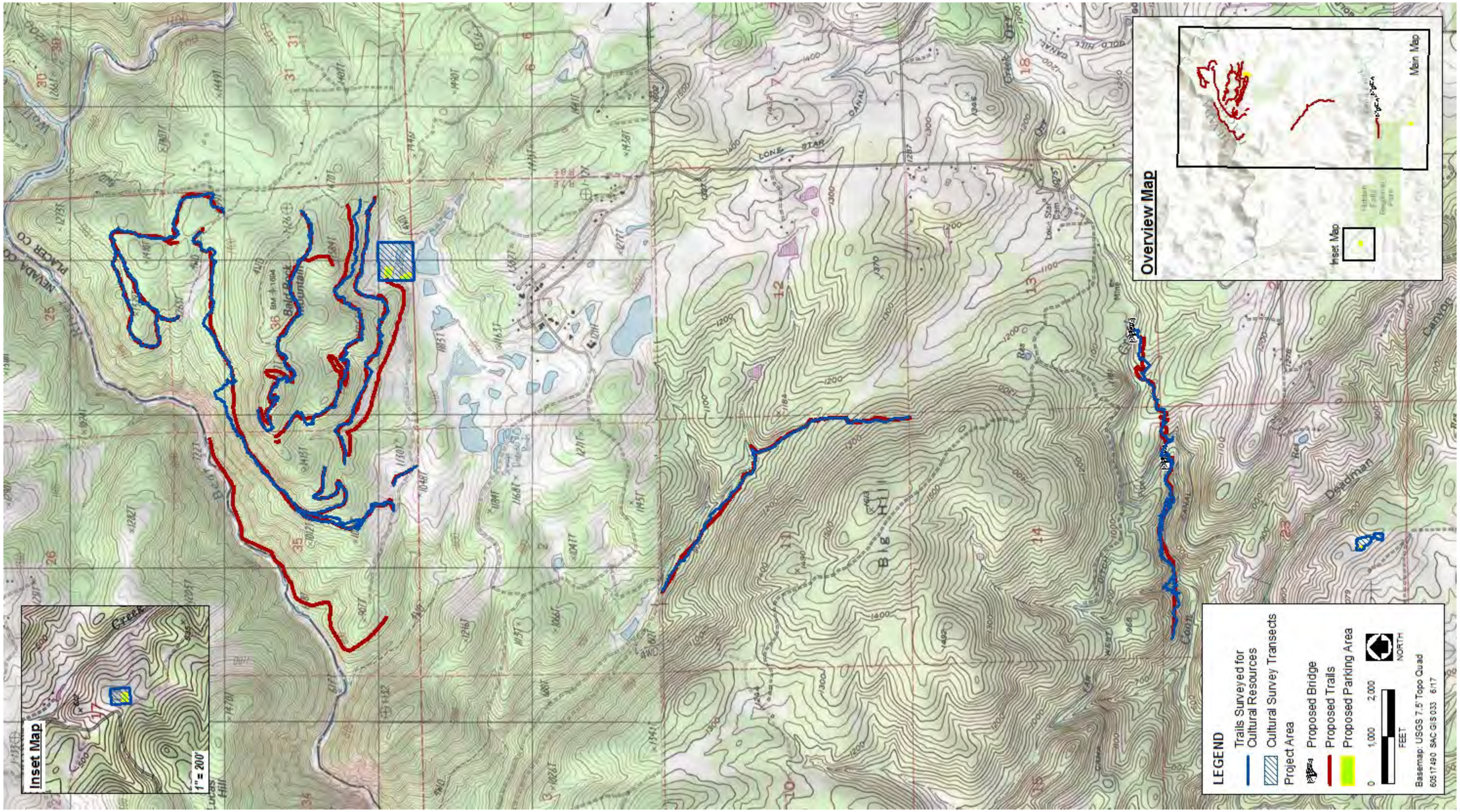


**Figure 6. Surveyed Areas, USGS 7.5" Quadrangle Wolf, CA (1995) and Gold Hill, CA (1973)**

**Figure 7. Open Oak Savanna in Harvego Bear River Preserve**

**Figure 8. Thick Overgrowth near Raccoon Creek between Hidden Falls Regional Park and Taylor Ranch**

**Figure 9. Typical Area with Gentle Slopes in Harvego Bear River Preserve**

**Figure 10. Typical Area with Moderate Slope in Taylor Ranch**

Location of HF-2016-01
Not for public review

**Figure 11. Location of Cultural Resource Site HF-2016-01 (USGS 7.5" Quadrangle Wolf, CA 1995)**

Location of HF-2017-01
Not for public review

**Figure 12. Location of Cultural Resource Site HF-2017-01 (USGS 7.5" Quadrangle Gold Hill, 1973)**

### ***HF-2016-01***

HF-2016-01 (Figure 13) is a series of rock walls (Figure 14, Figure 15) that reflect the theme of ranching. The site consists of four segments of mortarless rock walls between 1 and 3 meters high. Three walls are located to the north and one wall to the south of an improved, rock-lined drainage. A wire-wrapped milled lumber post was noted at the site, but no other artifacts were observed. Grasses covered approximately 100% of the ground surface and may have obscured small artifacts, but tin can–sized artifacts would have been visible. The absence of diagnostic artifacts limits the potential to estimate this site's age. Mortarless rock walls are common in Northern California and are often associated with livestock control.

Because of the lack of associated artifacts to identify the time the walls were erected or the identity of the builders, and because it does not represent a distinctive method of construction, this site has little data potential or association with important people/events in history.

### ***HF-2017-01***

HF-2017-01 (Figure 16) is a water conveyance ditch and stacked rock wall (Figure 17, Figure 18) that may be associated with Whiskey Diggins Canal, 30 meters to the east. The site consists of a ditch segment with stacked rock walls reinforcing part of the south berm and the remains of a small wooden bridge at its eastern terminus crossing Whiskey Diggins Canal. Metal wire affixed to a tree branch with an eye bolt–like piece of hardware was the only artifact observed, although heavy vegetation may have obscured additional artifacts. The absence of diagnostic artifacts limits the potential to estimate this site's age.

There are four significant breaches in the ditch and berm. Three of the breaches appear to be from cattle and erosion. The fourth breach, near the bridge, appears intentional and likely occurred during construction of the ditch. The bridge appears to be missing components, as evidenced by straight lines of protruding nails on top of the cross beams (see site form in Appendix B for details). Water conveyance ditches are common in the Sierra Nevada foothills region of California and are often associated with mining or irrigation. The wooden bridge may have functioned as a support structure or trestle for a pipe transporting water across the Whiskey Diggins Canal to the segment of the ditch that continues on the other side of the canal. Because of the lack of associated artifacts to identify the time the ditch and associated features were erected or the identity of the builders, and because it does not represent a distinctive method of construction, this site has little data potential or association with important people/events in history.

## 5.3 SUMMARY OF NRHP/CRHR RESOURCE ELIGIBILITY

No resources were identified in the APE that would be considered eligible for listing in the NRHP or CRHR. On this basis, there are **no adverse effects** on NRHP-eligible historic properties and **no potentially significant effects** on CRHR-eligible resources that may arise from direct or indirect impacts of the project.

Location of HF-2016-01
Not for public review

**Figure 13. HF-2016-01 Site Map**

**Figure 14. Overview of Site HF-2016-01, Rock Wall, Looking East**

**Figure 15. Overview of Site HF-2016-01, Ditch and Wall, Looking West**

Location of HF-2017-01
Not for public review

**Figure 16. HF-2017-01 Site Map**

**Figure 17. Overview of Site HF-2017-01, Ditch, Looking west.**

**Figure 18. Site HF-2017-01, Close-Up Views of Stacked Rock**

## 5.4 MANAGEMENT RECOMMENDATIONS

The newly identified cultural resources are not considered significant under the NRHP or CRHR criteria and the project as designed will have no adverse effects upon significant resources. However, HFRP may wish to alter the alignment of the trails to avoid these resources during trail construction. The rock walls of HF-2016-01 may be an attractive nuisance upon which people would climb and potentially injure themselves. Additionally, the bridge at HF-2017-01 may not be structurally sound and would also be an attractive nuisance to trail users. Alternatively, instead of avoiding the resources, HFRP may prefer to manage the resource for educational value and post interpretive signs discussing early ranching or mining lifeways and requesting that hikers refrain from climbing on the walls and bridge.

# 6 CONCLUSIONS

No cultural resources that are considered significant under NHRP or CRHR criteria were identified in the project APE; therefore, there is a finding of **no historic properties affected.**

Although survey methods were developed to identify resources that may be located in the APE, it is possible that unidentified cultural deposits are present in shallow subsurface contexts. Given the potential for subsurface deposits, it is recommended that if undocumented cultural resources are encountered during construction, all earth-disturbing work in the vicinity of the find should cease until a qualified archaeologist can assess the significance of the find and, if appropriate, provide recommendations for treatment.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the contractor and/or the project proponent shall immediately halt excavation in the area of the burial and notify the Placer County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC within 24 hours of making that determination (Health and Safety Code Section 7050[c]).

Following the coroner's findings, the archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The MLD shall have 48 hours to complete a site inspection and make recommendations after being are granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Site protection measures undertaken by the property owner may include one or more of the following:

1. Record the site with the NAHC or the appropriate information center.
2. Utilize an open-space or conservation zoning designation or easement.
3. Record a document with the county in which the property is located.

The landowner or landowner's authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. If the NAHC is unable to identify an MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site, the landowner or landowner's authorized representative may also reinter the remains in a location not subject to further disturbance if he or she rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner.

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# APPENDIX A

Native American Correspondence

# Local Government Tribal Consultation List Request

**Native American Heritage Commission**
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

**Type of List Requested**

☒ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

**Local Action Type:**

___ **General Plan** ___ **General Plan Element** ___ **General Plan Amendment**

___ **Specific Plan** ___ **Specific Plan Amendment** ___ **Pre-planning Outreach Activity**

**Required Information**

**Project Title:** Hidden Falls SEIR Date: 11/29/2016

**Local Government/Lead Agency:** Placer County

**Contact Person:** Laura Cook

**Street Address:** 2020 L Street, Suite 400

**City:** Sacramento, CA **Zip:** 95811

**Phone:** 916-361-6448 **Fax:** 916-414-5850

**Email:** laura.cook2@aecom.com

**Specific Area Subject to Proposed Action**

**County:** Placer **City/Community:** Auburn

**Project Description:**

Placer County is proposing to acquire and preserve an additional 2,500 acres of open space to the north and east of the Hidden Falls Regional Park where they will construct an additional 60 miles of multi-use trails, and increase parking and access to the park along Mears Place, Garden Bar, and Auburn Valley roads.

**Additional Request**

☒ **Sacred Lands File Search** - ***Required Information:***

**USGS Quadrangle Name(s):** Gold Hill and Wolf, CA

see attached map

**Township:** 13N & 14N **Range:** 7E **Section(s):** Numerous

**NATIVE AMERICAN HERITAGE COMMISSION**
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

December 7, 2016

Laura Cook
Consultant on behalf of Placer County

Sent by Email: laura.cook@aecom.com
Number of Pages: 3

RE: Hidden Falls SEIR, Gold Hill and Wolf, Placer County

Dear Ms. Cook:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent above reference codes is to avoid and or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.
   - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and

- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. **A tribe may be the only source of information regarding the existence of a tribal cultural resource.**

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: Sharaya.souza@nahc.ca.gov

Sincerely,

Sharaya Souza
Staff Services Analyst

**Native American Heritage Commission**
**Tribal Consultation List**
**Placer Counties**
**December 7, 2016**

Shingle Springs Band of Miwok Indians
Nicholas Fonseca, Chairperson
P.O. Box 1340 Miwok
Shingle Springs , CA 95682 Maidu
nfonseca@ssband.org
(530) 387-1400

Tsi Akim Maidu
Grayson Coney, Cultural Director
P.O. Box 1316 Maidu
Colfax , CA 95713
tsi-akim-maidu@att.net
(530) 383-7234

Tsi Akim Maidu
Don Ryberg, Chairperson
11442 Butler Road Maidu
Grass Valley , CA 95945
tsi-akim-maidu@att.net
(530) 210-7743

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road Maidu
Auburn , CA 95603 Miwok
(530) 883-2390 Office

**This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.**

**Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.**

**This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Hidden Falls SEIR, Placer County.**

MIWOK United Auburn Indian Community
MAIDU of the Auburn Rancheria

Gene Whitehouse, Chairman | John L. Williams, Vice Chairman | Danny Rey, Secretary | Jason Camp, Treasurer | Calvin Moman, Council Member

December 22, 2016

Public Works and Facilities Representative
County of Placer - Parks Division
11476 C Avenue
Auburn, CA 95603

Placer County

Subject: Hidden Falls Regional Park Trails Network Expansion Project

Dear Public Works and Facilities Representative,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and whose service area includes El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction. The UAIC would like to consult on this project.

In order to ascertain whether the project could affect cultural resources that may be of importance to the UAIC, we would like to receive copies of any archaeological reports that are completed for the project. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The UAIC would also like the opportunity to have our tribal monitors accompany you during the field survey. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes.

The UAIC's preservation committee has identified cultural resources in and around your project area, and would like to recommend that a tribal monitor be present during any ground disturbing activities. Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the documents requested above and consulting on your project. Please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or by email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

Gene Whitehouse,
Chairman

CC: Marcos Guerrero, CRM

| | |
|---|---|
| **From:** | Cook, Laura |
| **To:** | mguerrero@auburnrancheria.com |
| **Cc:** | LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy |
| **Subject:** | Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 09, 2017 7:50:26 AM |
| **Attachments:** | image003.png |

---

Good morning Mr. Guerrero,

The AECOM cultural staff, which includes myself and Dr. Amy Jordan, PhD., are planning on continuing our cultural survey of the Hidden Falls Regional Park on Monday May 15th, 2017. We will meet in the parking area at 7587 Mears Place in Auburn at 9am. As you requested, we are informing you of when we will be continuing our survey efforts so that you may join us if you so choose. Please do not hesitate to email me with any questions or concerns you may have. If you need to reach me by phone, please call 916-361-6433 or send me an email and I will call you ASAP.

Respectfully,

**Laura N. Cook**
Archaeologist
AECOM Environment
D +1 916.361.6448
M +1 209.263.2932
laura.cook2@aecom.com

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2020 L Street, Suite 400
Sacramento, CA 95811 USA
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F +1 916.414.5850
aecom.com

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| | |
|---|---|
| **From:** | Marcos Guerrero |
| **To:** | Cook, Laura |
| **Cc:** | LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 09, 2017 8:28:06 AM |
| **Attachments:** | image001.png |

---

Great thanks,
I will confirm availability with my staff. Would it be possible to have a paid monitor accompany you during the survey?

Best,
Marcos Guerrero

---

**From:** Cook, Laura [mailto:Laura.Cook2@aecom.com]
**Sent:** Tuesday, May 9, 2017 7:50 AM
**To:** Marcos Guerrero
**Cc:** LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy
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| **From:** | Cook, Laura |
| **To:** | Marcos Guerrero |
| **Cc:** | Unger, Petra; LCarnaha@placer.ca.gov; Boucher, Peter; Jordan, Amy |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 09, 2017 8:37:22 AM |
| **Attachments:** | image002.png<br>image003.png |

---

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Respectfully,

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**From:** Marcos Guerrero [mailto:mguerrero@auburnrancheria.com]
**Sent:** Tuesday, May 09, 2017 8:28 AM
**To:** Cook, Laura
**Cc:** LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy
**Subject:** RE: Hidden Falls Regional Park Cultural Survey

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Marcos Guerrero

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| **From:** | Marcos Guerrero |
| **To:** | Cook, Laura |
| **Cc:** | Unger, Petra; LCarnaha@placer.ca.gov; Boucher, Peter; Jordan, Amy |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 09, 2017 8:43:51 AM |
| **Attachments:** | image001.png<br>UAIC Record Search Program Description (7-13-16 amendment).pdf |

---

Ms. Cook,
Yes, I understand, we have teams out now on many project getting paid for and completing CEQA and 106 surveys. I have found that our teams are most efficient at finding sites since it is often their cultural items they are identifying. Ive been on several projects where reports are negative, then our teams survey and find numerous, often very complex sites.

Ill try to send staff out on Monday. Are you interested in our records search program. It includes resource maps, interviews, oral histories, and archival documents. See attached. Can you provide a copy of the records search?
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**Sent:** Tuesday, May 9, 2017 8:37 AM
**To:** Marcos Guerrero
**Cc:** Unger, Petra; LCarnaha@placer.ca.gov; Boucher, Peter; Jordan, Amy
**Subject:** RE: Hidden Falls Regional Park Cultural Survey

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**Sent:** Tuesday, May 09, 2017 8:28 AM
**To:** Cook, Laura
**Cc:** LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy
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| **From:** | Boucher, Peter |
| **To:** | Marcos Guerrero |
| **Cc:** | Unger, Petra; LCarnaha@placer.ca.gov; Jordan, Amy; Cook, Laura |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 09, 2017 11:55:25 AM |
| **Attachments:** | image001.png |

Dear Mr. Guerrero,
We are the CEQA consultants on this project and we are not able to engage in government-to-government consultation or authorize payment for monitors or records searches. Please contact Placer County directly on these matters, but please note that Lisa is out of the office until May 22.
We look forward to working with your staff on Monday the 15th if scheduling permits.
Thanks very much,
Peter

**Peter Boucher**
Project Manager
Environment
D +1 916.414.5861 M +1 916.425.5120
Peter.Boucher@aecom.com

**AECOM**
2020 L Street, Suite 400, Sacramento, CA 95811 USA
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www.aecom.com

---

**From:** Marcos Guerrero [mailto:mguerrero@auburnrancheria.com]
**Sent:** Tuesday, May 09, 2017 8:44 AM
**To:** Cook, Laura
**Cc:** Unger, Petra; LCarnaha@placer.ca.gov; Boucher, Peter; Jordan, Amy
**Subject:** RE: Hidden Falls Regional Park Cultural Survey

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Best,
Marcos Guerrero

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**To:** Marcos Guerrero
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**Sent:** Tuesday, May 09, 2017 8:28 AM
**To:** Cook, Laura
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**From:** Cook, Laura [mailto:Laura.Cook2@aecom.com]
**Sent:** Tuesday, May 9, 2017 7:50 AM
**To:** Marcos Guerrero
**Cc:** LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy
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| **From:** | Boucher, Peter |
| **To:** | Marcos Guerrero |
| **Cc:** | Unger, Petra; LCarnaha@placer.ca.gov; Jordan, Amy; Cook, Laura |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 30, 2017 11:52:47 AM |
| **Attachments:** | image001.png |

Hello Mr. Guerrero,
We wanted to let you know that we'll be doing one more cultural resources survey out to the east of Hidden Falls Regional Park for the proposed trail network expansion.
The survey will take place this Friday, June 2. We are planning to meet at 4845 Bell Road at about 9 a.m. to access an area near Coon Creek through a property owned by Patti Beard.
Please let us know if you or your staff plan to attend.
Thanks,
Peter Boucher

**Peter Boucher**
Project Manager
Environment
D +1 916.414.5861 M +1 916.425.5120
Peter.Boucher@aecom.com

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**From:** Boucher, Peter
**Sent:** Tuesday, May 09, 2017 11:55 AM
**To:** 'Marcos Guerrero'
**Cc:** Unger, Petra; LCarnaha@placer.ca.gov; Jordan, Amy; Cook, Laura
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| **From:** | Marcos Guerrero |
| **To:** | Boucher, Peter; Danny Rey |
| **Cc:** | Unger, Petra; LCarnaha@placer.ca.gov; Jordan, Amy; Cook, Laura |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Tuesday, May 30, 2017 11:06:21 PM |
| **Attachments:** | image001.png |

Thanks Peter, have you had any finds or recorded any artifacts or features?
mg

---

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**Sent:** Tuesday, May 30, 2017 11:53 AM
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Thanks,
Peter Boucher

**Peter Boucher**
Project Manager
Environment
D +1 916.414.5861 M +1 916.425.5120
Peter.Boucher@aecom.com

**AECOM**
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T +1 916.414.5800 F +1 916.414.5850
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We look forward to working with your staff on Monday the 15th if scheduling permits.
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**From:** Marcos Guerrero [mailto:mguerrero@auburnrancheria.com]
**Sent:** Tuesday, May 09, 2017 8:44 AM
**To:** Cook, Laura
**Cc:** Unger, Petra; LCarnaha@placer.ca.gov; Boucher, Peter; Jordan, Amy
**Subject:** RE: Hidden Falls Regional Park Cultural Survey

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Ill try to send staff out on Monday. Are you interested in our records search program. It includes resource maps, interviews, oral histories, and archival documents. See attached. Can you provide a copy of the records search?
Best,
Marcos Guerrero

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Respectfully,

**Laura N. Cook**
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**AECOM**
2020 L Street, Suite 400
Sacramento, CA 95811 USA
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**To:** Cook, Laura
**Cc:** LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy
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**To:** Marcos Guerrero
**Cc:** LCarnaha@placer.ca.gov; Boucher, Peter; Unger, Petra; Jordan, Amy
**Subject:** Hidden Falls Regional Park Cultural Survey

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| **Cc:** | Unger, Petra; LCarnaha@placer.ca.gov; Jordan, Amy; Cook, Laura |
| **Subject:** | RE: Hidden Falls Regional Park Cultural Survey |
| **Date:** | Wednesday, May 31, 2017 8:53:25 AM |
| **Attachments:** | image001.png |

Hello Mr. Guerrero,
Nothing so far. Only the remnants of an historic era rock wall.
Thanks,
Peter Boucher

**Peter Boucher**
Project Manager
Environment
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**Sent:** Tuesday, May 30, 2017 11:06 PM
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# APPENDIX B

Site Records

DPR Site Records
Not for public review

# ATTACHMENT

DPR Forms

DPR record for Milling Feature (MF1)
Not for public review

# APPENDIX D

Traffic Impact Study

# TRAFFIC IMPACT ANALYSIS

**FOR**

# HIDDEN FALLS REGIONAL PARK EXPANSION

Placer County, California

*Prepared For:*

**AECOM**
2020 L Street, Suite 400
Sacramento, CA 95811

*Prepared By:*

**KD Anderson & Associates, Inc.**
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

August 1, 2019

Job No. 0090-09

**TRAFFIC IMPACT ANALYSIS FOR**
**HIDDEN FALLS REGIONAL PARK EXPANSION**
Placer County, CA

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August 1, 2019

KDA

**TRAFFIC IMPACT ANALYSIS FOR**
**HIDDEN FALLS REGIONAL PARK EXPANSION**
Placer County, CA

## INTRODUCTION

This report documents KD Anderson & Associates' assessment of traffic impacts associated with implementing the **Hidden Falls Regional Park (HFRP) Expansion Project**. This analysis is intended to quantify the traffic / transportation impacts of the project and identify applicable mitigations within the context of both current and future background conditions.

### Project Description

The Hidden Falls Regional Park Expansion project proposes development of trails, parking and other facilities on roughly 2,500 acres to be added to the County's existing park located in the rural area west of the City of Auburn. The current park facilities total 1,200 acres and are located in the area north of Mt. Vernon Road and east of Garden Bar Road, as shown in Figure 1, and the new facilities are generally to the north towards the Bear River. Regional access to the project is via Placer County roads such as Bell Road, Lone Star Road, Cramer Road, Mt. Pleasant Road, Garden Bar Road and Mt. Vernon Road, which link the site with SR 193 to the south, SR 49 to the east and SR 65 to the west.

The HFRP is further identified in Figure 2. From the standpoint of transportation, the project includes construction of 304 new parking spaces and parkwide implementation of the peak period reservations system that has been implemented for the existing HFRP parking area on Mears Drive.

The existing park facilities are directly accessed via Mears Drive, a local Placer County road that extends north from Mt. Vernon Road. Limited public access to the western portion of the park via Garden Bar Road was approved in 2010 but is not currently used. Measures to facilitate interim use of the access via Garden Bar Road are identified and evaluated in this report as well. The proposed project envisions new access via a new public road connection to Bell Road south of the Cramer Road, via Auburn Valley Road west of Bell Road and potentially via private connections off of Bell Road or Mt. Pleasant Road.

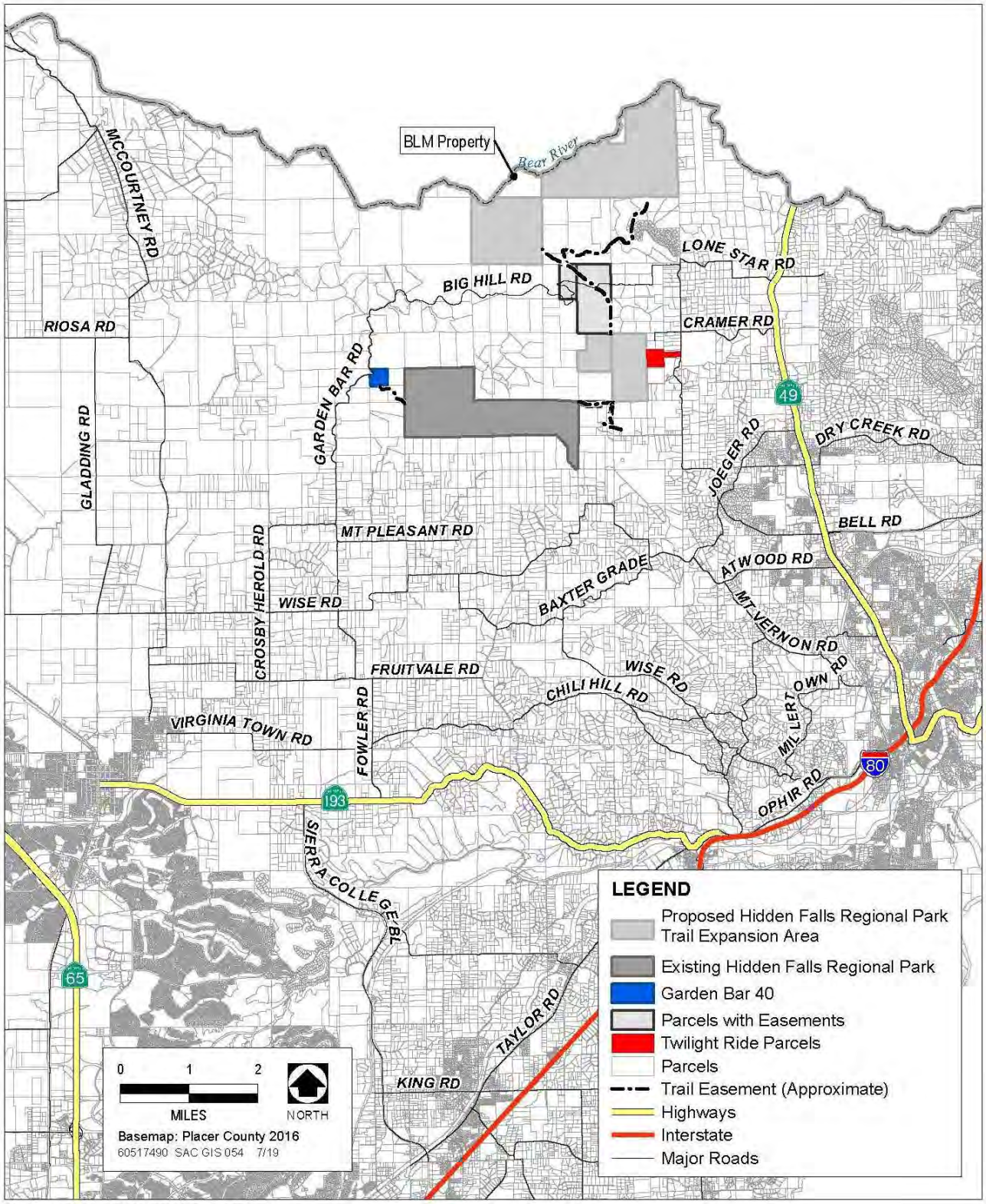
### Study Approach

The analysis addresses traffic conditions occurring within the vicinity of HFRP on a weekday and weekend basis. Current 24-hour traffic volumes have been identified for the roads expected to provide access to the expanded park, and weekday p.m. and Saturday midday peak hour conditions have been evaluated at key intersections. Current collision history was reviewed for

the study area and the physical characteristics of study area roadways was described in terms of general horizontal and vertical alignment at key locations.

The approach to this analysis identifies the immediate impacts of the project based on trip generation forecasts which reflect current travel patterns at the Mears Drive facility as well as the effects of the controlled weekend use of the park through the reservation system. Resulting vehicle trips were assigned to the study area circulation system as the "Existing plus Project" condition. These conditions were evaluated with regards to adopted Placer County significance criteria, and the impacts associated with implementing the project were identified. The project's impacts to other transportation modes and to safety were also evaluated.

The cumulative impacts of developing the HFRP Expansion were also evaluated. The cumulative traffic background conditions assumed continuation of historic traffic growth trends identified by Placer County for study area roads, as well as occupancy of other approved and pending projects that would not be part of continuing rural development. The cumulative analysis also reflects implementation of the pending Placer County Winery and Rural Breweries Ordinance amendment. Because the number and exact locations of possible new future wineries and farm breweries is unknown, the cumulative analysis follows the approach of the Wineries and Rural Breweries DEIR which assumed continuation of current trends regarding annual winery and farm brewery development to identify the number of new facilities that might reasonably be expected over the next twenty years. The amount of vehicular traffic associated with events at these new wineries and farm breweries was quantified and trips assigned assuming new facilities in areas most likely to be developed. Resulting cumulative traffic operations were evaluated with and without the HFRP Expansion against adopted significance criteria to identify the cumulative impacts of the proposed project.

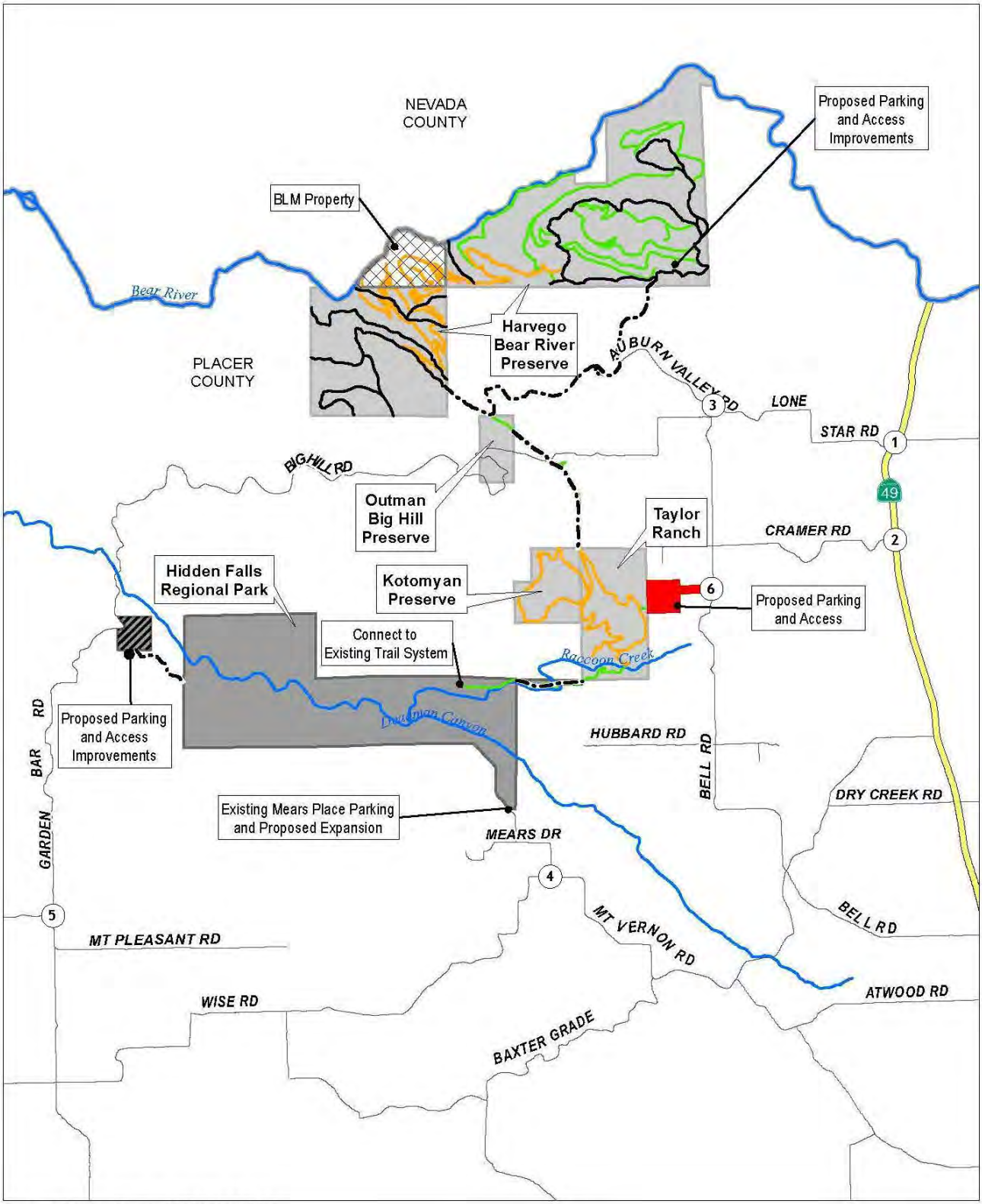



Source: Placer County 2016 and 2018

*KD Anderson & Associates, Inc.*
Transportation Engineers
0090-09 RA 8/1/2019

VICINITY MAP

figure 1




Source: Placer County 2017, PLT 2017

*KD Anderson & Associates, Inc.*
Transportation Engineers

HFRP AREAS

0090-09 LT 8/1/2019

figure 2

## EXISTING SETTING

Regionally, the project site is served primarily by various rural Placer County roads and state highways which link the park with Lincoln and SR 65 to the west, Interstate 80 and the Rocklin/ Loomis area to the south and the Auburn area and SR 49 to the east. Regional roads such as Mt. Pleasant Road, Garden Bar Road and Mt. Vernon Road, Big Ben Road, Wise Road, Riosa Road, McCourtney Road, Fowler Road, Fruitvale Road, and Gold Hill Road will link the site with SR 65 to the west and SR 193 to the south, while Bell Road, Lone Star Road and Cramer Road link the property with SR 49 to the east. Locally, the traffic using the site may use various local roads to access the park from Bell Road and from Mt. Vernon Road. The permitted park access off of Garden Bar Road can be reached via Mt. Pleasant Road and Garden Bar Road.

### Study Area Circulation System - Roads

**Classification.** Under the Placer County General Plan the public roads in the study area range in functional class from Rural Arterials to Rural Collectors to local roads. Other private roads provide access to area rural residences and to the Auburn Valley Country Club.

***Principal Arterials – PCGP Table 1-7***

SR 49 from Interstate 80 to Nevada County (State Highway – Conventional)
SR 65 from Interstate 80 to Yuba County (State Highway – Conventional, except for Interstate 80 to Nelson Road which is – Freeway)
SR 193 from SR 65 to Interstate 80 (State Highway – Conventional)

***Rural Arterials***

Wise Road from Mt. Vernon Road to SR 65
McCourtney Road from the Lincoln city limits to Camp Far West Road
Joeger Road from Mt. Vernon Road to Dry Creek Road

***Rural Collectors***

Fruitvale Road from McCourtney Road to Hungry Hollow Road
Mt. Vernon Road from Joeger Road to Wise Road
Mt. Vernon Road from Joeger Road to Auburn
Virginiatown Road from Lincoln to Fowler Road
Riosa Road from the Sutter County line to McCourtney Road
Fowler Road from SR 193 to Fruitvale Road
Bell Road from Joeger Road to Lone Star Road
Wise Road from Ophir Road to Mt. Vernon Road
Baxter Grade Road from Wise Road to Mt. Vernon Road
Gold Hill Road from SR 193 to Wise Road

***Local Roads***

Mt. Pleasant Road
Mears Drive
Garden Bar Road
Big Hill Road
Big Ben Road
Lone Star Road
Cramer Road

***Private Roads***

Auburn Valley Road
Curtola Ranch Road

The state highways serving the project area are described below:

**Interstate 80 (I-80)** is the primary east-west arterial across Placer County and Northern California. In the vicinity of the proposed project, I-80 is a six-lane controlled access freeway. Access for HFRP to the interstate is available via interchanges at SR 193 in Newcastle and at Ophir Road near the City of Auburn and at SR 49 in Auburn.

The California Department of Transportation (Caltrans) provides annual reports of the volume of traffic on the state highway system. Recent counts available from Caltrans report an *Annual Average Daily Traffic (AADT - 2017)* volume of 85,500 vehicles per day west of the SR 193 junction, 88,700 between SR 193 and Ophir Road and 88,300 AADT east of the Ophir Road interchange. (source: http://www.dot.ca.gov/trafficops/census/volumes2016/)

**State Route 193 (SR 193)** is an east-west route that connects the City of Lincoln with I-80 across the study area. SR 193 originates in Lincoln as McBean Park Drive and becomes SR 193 roughly 1.4 miles west of the Sierra College Blvd intersection and continues from that point to I-80. In the area of the proposed project SR 193 is a two-lane conventional highway. Caltrans data indicate that in 2017 SR 193 carries 9,500 AADT west of Sierra College Blvd and roughly 5,000 AADT between Sierra College Blvd and Newcastle. Trucks comprise 9% of the daily traffic on SR 193 east of Sierra College Blvd.

**State Route 49 (SR 49)** is a principal arterial that is the primary north-south route through the Auburn – North Auburn area. SR 49 links I-80 with the Grass Valley – Nevada City area to the north. Through North Auburn SR 49 is generally a 4 – 6 lane conventional highway with a continuous center two-way left-turn (TWLT) lane or median, and SR 49 is a 4-lane rural highway.

The most recent traffic counts published by Caltrans indicate that in 2017 SR 49 carried an *Annual Average Daily Traffic (AADT)* volume of 34,700 vehicles per day north of the Bell Road intersection, with the volume reported to be 32,000 AADT in the area of the proposed project north of Dry Creek Road and 30,700 AADT in the area of Lorensen Road to the Nevada County line. Caltrans data indicates that trucks comprise 6% of the Daily traffic on SR 49 in the area of the project.

**State Route 65.** (SR 65) is an important north-south route that extends from I-80 across the western Placer County to its northern terminus at a junction with SR 70 in Yuba County. SR 65 is a four or six-lane controlled access freeway in the urban Rocklin / Roseville area and continues that configuration through Placer County to the City of Lincoln. Beyond West Wise Road SR 65 is a two-lane expressway or conventional highway to a location north of Wheatland where a four-lane controlled access freeway is again available.

The most recent traffic counts published by Caltrans indicate that in 2017 SR 65 carried 117,400 AADT north of I-80 with 76,800 AADT north of the Blue Oaks Blvd – Washington Blvd interchange and 21,700 AADT at the Placer County – Yuba Countyline. Trucks comprise 15% to 20% of the daily volume on SR 65.

The Placer County roadways addressed in this analysis are those most likely to carry expansion traffic or were previously investigated in the prior HFRP EIR. These roads provide access to the existing park.

**Mt. Pleasant Road** is a local east-west road that extends for approximately three miles linking Big Ben Road and Mt. Vernon Road.

**Mt. Vernon Road** is a Rural Collector road that extends easterly from an intersection on Wise Road for about 7 miles into the City of Auburn.

**Mears Drive** is a local road that connects the existing portion of Hidden Falls Park with Mt. Vernon Road.

**Garden Bar Road** is a local road that extends north from an intersection on Fruitvale Road across Mt. Pleasant Road along the west side of the Hidden Falls Park for approximately three miles to the Nevada County line.

The following public roads are generally located in the area east and south of the proposed park expansion:

**Bell Road** is a rural collector road that extends from an intersection on SR 49 north-westerly to Lone Star Road.

**Lone Star Road** is a local road that connects SR 49 with Auburn Valley Road and the north end of Bell Road.

**Cramer Road** is a local road that links Bell Road and SR 49.

The following private roads exist in the area around Hidden Fall Regional Park and near the proposed expansion project and would provide access to the new park facilities. The County has rights to these roads either through an offer of dedications or easements.

**Auburn Valley Road** is a private road that extends west from Bell Road to provide access to Auburn Valley Country Club and to an existing residential neighborhood.

**Curtola Ranch Road** is a local road that extends north from Auburn Valley Road into the adjoining residential neighborhood and towards the northern portion of the HFRP expansion.

**Study Area Circulation System - Intersections**

Even in rural areas the quality of traffic flow is often governed by the operation of key intersections, particularly where all-way stop control is employed. The following intersections have been identified for evaluation in this study in consultation with Placer County based on their location along primary routes to the project.

The **Garden Bar Road (North) / Mt. Pleasant Road** intersection is a "tee" intersection controlled by a stop sign on the southbound Garden Bar Road approach. The intersection is located on a horizontal curve along Mt. Pleasant Road. There are no turn lanes on Mt. Pleasant Road at the northern Garden Bar Road intersection.

The **Bell Road / Auburn Valley Road / Lone Star Road** intersection is a "tee" intersection controlled by a stop sign on the eastbound Auburn Valley Road approach. The intersection is located on a horizontal curve that follows Bell Road and Lone Star Road. There are no turn lanes at the intersection.

The **Mt. Vernon Road / Mears Drive** intersection is the primary access to Hidden Falls Regional Park. The intersection is a "tee" controlled by a stop sign on the southbound Mears Drive approach. There are no auxiliary turn lanes at this location.

The **SR 49 / Lone Star Road** intersection is controlled by stop signs on the eastbound and westbound Lone Star Road approaches. The eastbound Lone Star Road approach follows a short (i.e., 60 foot radius curve) horizontal curve as it approaches SR 49. Separate left turn and right turn lanes are provided on both SR 49 approaches, and the left turn lanes continue beyond the area of the intersection as continuous Two-way-Left-turn (TWLT) lanes. The eastbound Lone Star Road approach is a single lane, but the westbound approach has short right turn lane. The intersection is illuminated by street lights.

The **SR 49 / Cramer Road** intersection is controlled by stop signs on the eastbound Cramer Road approach. A separate left turn lane is provided on the northbound SR 49 approach, and the left turn lane continues beyond the area of the intersection as a continuous Two-way-Left-turn (TWLT) lane. A separate southbound right turn lane is provided on SR 49. The eastbound Cramer Road approach is a single lane. The intersection is illuminated by street lights.

## Planned Improvements / Funding Sources

**South Placer Regional Transportation Authority (SPRTA) Fee Program.** Placer County and the cities of Lincoln, Rocklin and Roseville have joined to form the South Placer Regional Transportation Authority (SPRTA). (SPRTA) is a Joint Powers Authority (JPA) formed for the purpose of implementing a Regional Transportation and Air Quality Mitigation Fee to fund specified regional transportation projects.

SPRTA funding is directed towards projects such as Placer Parkway, Sierra College Blvd widening, Lincoln Bypass, I-80 / Douglas Blvd interchange, SR 65 widening, I-80 / Rocklin Road interchange, Auburn Folsom Road widening and HOV lanes on I-80 through Roseville.

Locally, SPRTA funding is part of the ultimate plan for improving Sierra College Blvd from SR 193 to the Sacramento County line. While the SPRTA program outlines the ultimate improvements that will eventually be provided, actual implementation is directed by member agencies in a phased manner.

**Placer County Traffic Impact Fee Program and CIP.** In April 1996, the Placer County Board of Supervisors adopted the Countywide Traffic Impact Fee Program, requiring new development within the County to mitigate impacts to the roadway system by paying traffic impact fees. The fees collected through this program, in addition to other funding sources, make it possible for the County to construct roads and other transportation facilities and improvements needed to accommodate new development. Additional information regarding the fee program is included in the cumulative analysis.

## Standards of Significance: Levels of Service - Methodology

To assess the quality of existing traffic conditions and provide a basis for analyzing project impacts, Levels of Service were calculated at study area intersections, the project access and on individual roadway segments identified by Placer County in response to the EIR Notice of Preparation. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment.

**Standards of Significance**. Agencies adopt their own minimum LOS standards and standards of significance.

**Placer County General Plan.** Minimum acceptable Level of Service standards within this area of Placer County are defined by the General Plan. The minimum standard for roadway and intersections is LOS C except at locations within ½ mile of a state highway where LOS D is acceptable.

Placer County has adopted a methodology for determining the significance of traffic impacts within the context of the Level of Service goals established by the General Plan and local community plans. This methodology is noted below.

*Roadway Segment Assessment Methodology:*

*A project may be considered to exceed the minimum LOS policies if;*

1) *A roadway segment operating at or above the established Placer County policy without the project will decrease to an unacceptable LOS with the project; or*
2) *A roadway segment currently operating below the applicable established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 or greater; or*
3) *A roadway segment currently operating below the established acceptable LOS Policy experiences an increase in ADT of 100 or more project generated trips, per lane.*

*Signalized Intersections Assessment Methodology:*

*A project may be considered to exceed the minimum LOS policies if;*

1) *An intersection operating at or above the established Placer County policies without the project will decrease to an unacceptable LOS with the project; or*
2) *An intersection currently operating below the acceptable LOS established policy will experience an increase in V/C (volume to capacity) ratio of 0.05 (5%) or greater; or*
3) *An intersection currently operating below the established acceptable LOS policy will experience an increase in overall average intersection delay of 4 seconds or greater.*

*Un-signalized Intersection Assessment Methodology:*

*A project may be considered to exceed the minimum LOS policies if;*

1) *An all-way stop or side-street-controlled intersection which currently operates at or above the established Placer County policies without the project will deteriorate to an unacceptable LOS with the project and cause the intersection to meet MUTCD traffic signal warrant(s) (1); or*
2) *An all-way stop or side-street controlled intersection which currently operates below the established acceptable LOS policy and meets MUTCD signal warrant(s) will experience an overall increase of 2.5 seconds or more with the project.*

*Further consideration will be given in situations where the existing level of service is just above or at the approved minimum level of service and any increase in vehicle trips, or even daily fluctuations in traffic, will deteriorate the level of service to an unacceptable level. In such cases, it may be determined by the County that part (2) or (3) of the above exceptions is more applicable and should be used to analyze a proposed project's impacts.*

**Analysis Methodologies Intersections**. Different methodologies are available to address intersection operations and Level of Service based on the type of traffic control.

Table 1 presents general characteristics associated with each LOS grade.

**TABLE 1**
**LEVEL OF SERVICE DEFINITIONS**

| Level of Service | Signalized Intersection | Unsignalized Intersection | Roadway (Daily) |
|---|---|---|---|
| "A" | Uncongested operations, all queues clear in a single-signal cycle.<br>Average Delay ≤ 10 seconds per vehicle | Little or no delay.<br>Average Delay ≤ 10 sec/veh | Completely free flow. |
| "B" | Uncongested operations, all queues clear in a single cycle.<br>Delay > 10 sec/veh and ≤ 20 sec/veh | Short traffic delays.<br>Delay > 10 sec/veh and ≤ 15 sec/veh | Free flow, presence of other vehicles noticeable. |
| "C" | Light congestion, occasional backups on critical approaches.<br>Delay >20 sec/veh and <35 sec/veh | Average traffic delays.<br>Delay > 15 sec/veh and ≤ 25 sec/veh | Ability to maneuver and select operating speed affected. |
| "D" | Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed).<br>Delay > 35 sec/veh and < 55 sec/veh | Long traffic delays.<br>Delay > 25 sec/veh and ≤ 35 sec/veh | Unstable flow, speeds and ability to maneuver restricted. |
| "E" | Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es).<br>Delay >55 sec and ≤ 80 sec/veh | Very long traffic delays, failure, extreme congestion.<br>Delay > 35 sec/veh and ≤ 50 sec/veh | At or near capacity, flow quite unstable. |
| "F" | Total breakdown, stop-and-go operation.<br>Delay > 80 sec/veh | Intersection often blocked by external causes.<br>Delay > 50 sec/veh | Forced flow, breakdown. |

Sources: 6th Edition Highway Capacity Manual, and Transportation Research Board (TRB) Special Report 209.

***Signalized Intersections.*** No study intersection is currently signalized, but accepted methodologies would govern evaluation if a traffic signal was found to be needed. Various methodologies exist to determine operating Levels of Service at intersections. The available techniques for addressing intersection vary with regard to factors such as traffic signal timing, interaction between adjoining signals, etc. Caltrans and Placer County make use of the procedures contained in the *Highway Capacity Manual (6th Edition)* for determining operating Level of

Service. This methodology expresses the quality of intersection traffic operations in terms of average delay per vehicle.

***Un-signalized Intersections.*** At un-signalized intersections the number of gaps in through traffic, gap acceptance time and corresponding length of delays for motorists waiting to turn are used for Level of Service analysis. Procedures used for calculating un-signalized intersection Level of Service are as presented the *Highway Capacity Manual (6th Edition).*

At un-signalized intersections controlled by side street stop signs HCM methodology identifies the average delay, and the Level of Service for all movements that must yield the right of way can be determined. Typically the "worst case" Level of Service is associated with side street traffic waiting to turn onto the major street. For environmental analysis Placer County also identified the overall average delay experienced by those motorists who yield the right of way, and this is the measure used to determine the significance of traffic impacts to un-signalized intersections in Placer County.

**Methodology for Evaluating Roadway Segment Level of Services.** The Placer County General Plan presents daily traffic volume levels that are to be indicative of Levels of Service on arterials streets and rural roads. These volume thresholds are shown in Table 2.

**TABLE 2**
**PLACER COUNTY EVALUATION CRITERIA FOR ROADWAY SEGMENT LEVEL OF SERVICE**

| | **Maximum Daily Traffic Volume Per Lane Level of Service** | | | | |
|---|---|---|---|---|---|
| **Roadway Capacity Class** | **A** | **B** | **C** | **D** | **E** |
| 1. Freeway – Level Terrain | 6,300 | 10,620 | 13,680 | 17,740 | 18,000 |
| 2. Freeway – Rolling Terrain | 5,290 | 8,920 | 11,650 | 14,070 | 15,120 |
| 3. Freeway – Mountainous Terrain | 3,400 | 5,740 | 7,490 | 9,040 | 9,720 |
| 4. Arterial – High Access Control | 6,000 | 7,000 | 8,000 | 9,000 | 10,000 |
| 5. Arterial – Moderate Access Control | 5,400 | 6,300 | 7,200 | 8,100 | 9,000 |
| 6. Arterial – Low Access Control | 4,500 | 5,250 | 6,000 | 6,870 | 7,500 |
| 7. Rural 2-lane Highway – Level Terrain | 1,500 | 2,950 | 4,800 | 7,750 | 12,500 |
| 8. Rural 2-lane Highway – Rolling Terrain | 800 | 2,100 | 3,800 | 5,700 | 10,500 |
| 9. Rural 2-lane Highway – Mountainous Terrain | 400 | 1,200 | 2,100 | 3,400 | 7,000 |
| *Rural 2 lane road – Mountainous Terrain (≥ 18 feet of pavement)*[1] | *320* | *960* | *1,680* | *2,720* | *5,600* |
| *Rural 2 lane road – Mountainous Terrain (< 18 feet of pavement)*[1] | *265* | *795* | *1,390* | *2,250* | *4,635* |

Source: Placer County General Plan FEIR and [1]HFRP Expansion DEIR (2010)

Placer County thresholds account for the general terrain and alignment of rural collector and local roads. The roads towards the western portion of the study area are typically straight and level, while the roads toward the east follow the rolling terrain of the foothills. For this analysis it has been assumed that roadways located in the study area would classified as "rolling". Specific roadway classifications are noted in subsequent tables.

The previous HFRP EIR identified specific traffic volume thresholds for roadways where the pavement width was less than 18 feet. These thresholds were applied to Garden Bar Road and are also presented.

## Other Evaluation Criteria

**Traffic Signal Warrants.** Evaluation of un-signalized Level of Service has been supplemented by consideration of the need for traffic signals based on the Traffic Signal Warrant criteria published in the *California Manual of Uniform Traffic Control Devices (MUTCD).*

## Existing Traffic Volumes and Levels of Service

**Traffic Volumes.** Recognizing the operational characteristics of HFRP, traffic operations have been assessed under both weekday and weekend (Saturday) conditions. Daily traffic volumes were tabulated on key roadway segments, and hourly traffic volume counts were conducted at intersections during the typical weekday p.m. peak hour (4:00 to 6:00 p.m.). Based on review of traffic volume counts in the study area and at HFRP, Saturday turning movement counts were conducted during the midday peak hour on Saturday (noon to 2:00 p.m.).

***Daily Traffic Volumes.*** 24-hr traffic volume counts were collected on study area roadways from new counts or from data available from Placer County. Figure 3 identifies the locations of these traffic counts. Saturday data was collected at various locations on May 28, 2016, October 8, 2016, and June 10, 2017. Weekday data was collected on October 3, 2017 and December 7, 2018. The results of these counts form the basis for Table 3, Existing Roadway Segment Level of Service.

***Peak Hour Intersection Traffic Counts.*** Weekday intersection turning movement counts were collected at various study locations on October 5, 2017 and December 7, 2018. Saturday data was collected on May 21, 2016, May 28, 2016, June 4, 2016, October 8, 2016, October 7, 2017 and August 18, 2018. Intersection count data was collected during the typical weekday p.m. peak hour (i.e., 4:00 to 6:00 p.m.) and during the highest volume hour for activity HFRP (i.e., noon to 2:00 p.m.) on Saturdays. The locations of study intersections and the results of these counts are noted in Figure 3. Traffic count worksheets are included in the appendix to this report.

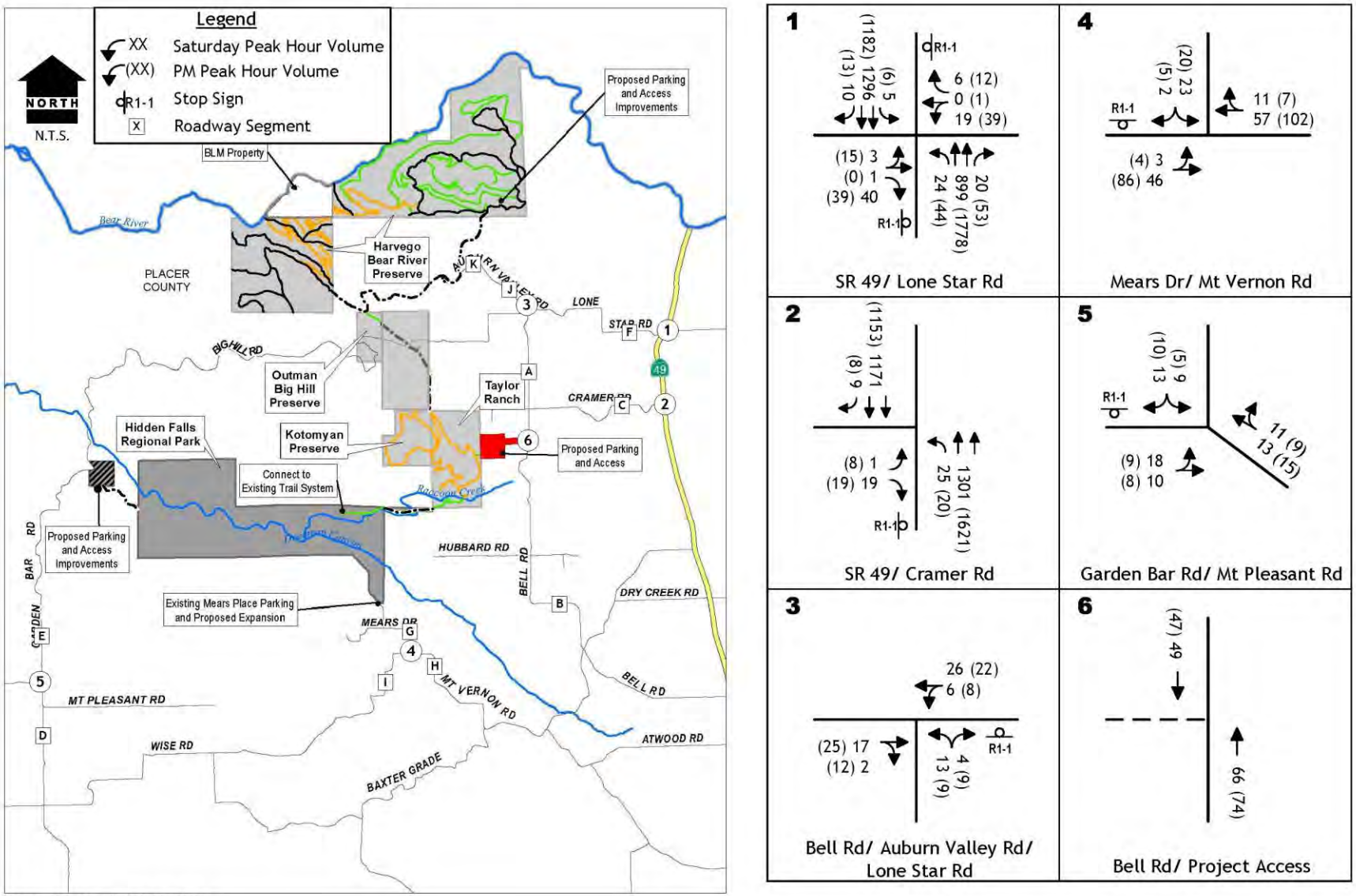
**Levels of Service.** Levels of Service were determined using methodologies accepted by Placer County.

***Roadway Segment Levels of Service.*** Table 3 identifies the current Level of Service on study area roads based on daily traffic volume. As indicated, all roadways carry traffic volumes that result in Level of Service that satisfy Placer County's minimums standards for rural areas (i.e., LOS C or LOS D based on proximity to a state highway).

**TABLE 3**
**EXISTING DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE**

| Road | From | To | Class / Terrain | Saturday | | Weekday | |
|---|---|---|---|---|---|---|---|
| | | | | Volume | Level of Service | Volume | Level of Service |
| ***Public Roads*** | | | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local - R | 790[1] | A | 493 | A |
| Mt. Vernon Road | Ayers Holmes Road | Buffalo Road | RC - R | 1,328 | A | 1,714 | A |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC - R | 2,679 | B | 2,010 | B |
| Garden Bar Road | Wise Road | Mt. Pleasant Road | Local - R | 691 | A | 748 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local - M[2] | 316 | A | 318 | A |
| Bell Road | Lone Star Road | Cramer Road | RC - R | 543 | A | 614 | A |
| Bell Road | Cramer Road | Joeger Road | RC - R | 1,329 | A | 1,400 | A |
| Lone Star Road | Bell Road | SR 49 | Local - R | 1,223 | A | 1,328 | A |
| Cramer Road | Bell Road | SR 49 | Local - R | 548 | A | 558 | A |
| ***Private Roads*** | | | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 884 | A | 935 | A |
| Auburn Valley Road | Fairway Court | Curtola Ranch Road | Local - R | 399 | A | 295 | A |

R is Rolling terrain, M is Mountainous terrain
[1] volume is the average of three Saturdays 5/21/2016 – 6/04/2016 and 10/8/2016
[2] Roadway with capacity adjustment for reduced width.




Source: Placer County 2017, PLT 2017

*KD Anderson & Associates, Inc.*
Transportation Engineers

# EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

0090-09 RA 8/1/2019

figure 3

***Intersection Levels of Service.*** Table 4 identifies current peak hour Levels of Service at study area intersections. As shown, with one exception all study area intersections operate with Level of Service that satisfy Placer County's overall minimum LOS C standard for locations more than ½ mile from a state highway or LOS D for locations within ½ mile of a state highway. The exception is the SR 49 / Lone Star Road where side street approaches operate at LOS F and where the overall weighted average Level of Service is LOS F.

**TABLE 4**
**EXISTING INTERSECTION LEVELS OF SERVICE**

| # | Location | Control | Weekday PM Peak Hour | | Saturday Peak Hour | |
|---|---|---|---|---|---|---|
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | | | | | |
| | (overall) | | **(106.3)** | **(F)** | **(93.4)** | **(F)** |
| | Eastbound approach | EB/WB Stop | 103.5 | F | 26.0 | D |
| | Westbound approach | | >300 | F | 195.6 | F |
| | Northbound left turn | | 11.9 | B | 12.9 | B |
| | Southbound left turn | | 16.5 | C | 10.2 | B |
| 2 | SR 49 / Cramer Road | | | | | |
| | (overall) | EB Stop | (15.6) | (C) | (13.0) | (B) |
| | Eastbound approach | | 18.8 | C | 14.6 | B |
| | Northbound left turn | | 11.3 | B | 11.8 | B |
| 3 | Bell Road / Auburn Valley Road / Lone Star Road | | | | | |
| | (overall) | EB Stop | (8.5) | (A) | (8.3) | (A) |
| | Eastbound approach | | 8.8 | A | 9.0 | A |
| | Northbound left turn | | 7.3 | A | 7.3 | A |
| 4 | Mt. Vernon Road / Mears Drive | | | | | |
| | (overall) | SB Stop | (9.5) | (A) | (9.2) | (A) |
| | Southbound approach | | 9.8 | A | 9.4 | A |
| | Eastbound left turn | | 7.5 | A | 7.4 | A |
| 5 | Mt. Pleasant Rd / Garden Bar Rd | | | | | |
| | (overall) | SB Stop | (8.1) | (A) | (8.1) | (A) |
| | Southbound approach | | 8.6 | A | 8.8 | A |
| | Eastbound left turn | | 7.3 | A | 7.3 | A |

(XX) is overall weighted average delay and LOS for those movements yielding right of way
**BOLD** values exceed minimum LOS standard

## Traffic Signal Warrants

The extent to which existing traffic volumes reach the level that satisfy peak hour traffic signal warrants has been evaluated. Peak hour warrants differentiate between *urban* and *rural* conditions based on the prevailing travel speed. Rural warrants are applied for speeds of 40 mph or greater, while urban criteria are employed at lower speeds. For this investigation rural warrant thresholds have been employed in all cases.

Current traffic volumes at all study intersections fall below the level that would satisfy peak hour warrant requirements.

## Alternative Transportation Modes

The status of existing facilities for pedestrians, bicycle and transit users have been evaluated based on identification of existing facilities and review of planned programs and improvements.

**Transit Services**. ***Placer County Transit (PCT)*** provides bus service to most of the urbanized south Placer County area, but services are limited in the rural study area addressed by this analysis. The Auburn Station on Nevada Street in the City of Auburn is the hub for service in Western Placer County. PCT's *Taylor Road Shuttle* travels between Auburn and Sierra College in Rocklin, and this route follows Ophir Road between Auburn and the Ophir Park-&-Ride lot on I-80. This route provides service Mondays through Saturdays from 6:40 a.m. to 8:20 p.m. However, stops on Ophir Road are by reservation only. The SR 49 route follows the state highway north from the Auburn Transit Center to Dewitt Center on Bell Road and Chana High School on Richard Drive south of Dry Creek Road. This service runs Monday through Saturday from 4:35 a.m. to 7:30 p.m. None of these routes are near HFRP.

## Bicycle Facilities

The 2018 Update to the Placer County Regional Bikeway Plan (Bikeway Plan) provides the most current information regarding the status of existing bicycle facilities in the study area and plans for future improvements.
http://pctpa.net/library/BikewayPlanning/PlacerCounty_RegionalBikewayPlan_FINAL_20180629.pdf .

The Bikeway Plan notes that there are four types of bikeways defined by Chapter 1000 of the Caltrans Highway Design Manual (2017).

- **Class I Bikeway (Bike Path).** Bike paths or share-use paths provide a completely separated facility designed for the exclusive use of cycles and pedestrians with minimal vehicle crossflows. Motorized vehicles are not allowed on Class I Bike Paths.

- **Class II Bikeway (Bike Lane).** Bike lanes are on-street bikeways that provide a designated right of way for the exclusive or semi-exclusive use of bicycles. Through

travel by motor vehicles or pedestrians prohibited, but vehicle parking and crossflows by pedestrians and motorists are permitted.

- **Class III Bikeway (Bike Route). Bike routes** provide a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists. Roadways designated as Class III Bike Routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Shared-lane markings ("sharrows") can be used on roadways with a posted speed limit of 35 mph or less to provide an additional alert to drivers of the shared roadway environment with bicyclists.

- **Class IV Bikeway (Separated Bikeway).** Separated bikeways provide a physical separation from vehicular traffic. This separation may include grade separation, flexible posts, planters, or other inflexible physical barriers, or on-street parking. This class of bikeway has not yet been implemented in Placer County.

**Existing Facilities.** The Bikeway Plan noted the presence of existing bicycle facilities in its figures 10 (western Placer County) and 11 (Central Placer County), and this information has been described for the study area in Table 5 below. As indicated, dedicated bicycle facilities are rare in the study area.

**TABLE 5**
**EXISTING STUDY AREA BICYCLE FACILITIES**

| Road | Location | Facility Designation |
|---|---|---|
| SR 193 | Oak Tree Lane to Lincoln City limit | Class II |
| Ophir Road | Newcastle to I-80 | Class II |
| English Colony Road | Penryn Elementary School to UPRR | Class III |
| Auburn Folsom Road | Auburn to Douglas Blvd | Class III |
| Bell Road | SR 49 to I-80 | Class II |
| Lozanos Road | Adjoining Ophir Elementary School | Class III |
| Meadow Vista Road | Placer Hills Road to Pine Cone Lane | Class III |
| Richardson Drive | Joeger Road to Dry Creek Road | Class III |

The Bikeway Plan notes the presence of recreational cyclist on many rural roads and identifies High-Use Recreational Routes in its figure 19. Nearly all study area roads fall under this classification.

**Planned Improvements.** The Bikeway Plan notes facilities that may be developed in the future, and study area facilities are noted in its figures 23, 28, 29 and 30. These facilities are noted in Table 6. The Bikeway Plan also noted "priority", with those facilities that would be expected to be constructed first having higher scores.

| TABLE 6<br>FUTURE STUDY AREA BICYCLE FACILITIES | | | |
|---|---|---|---|
| | | Facility | |
| **Road** | **Location** | **Designation** | **Priority** |
| SR 193 | Lincoln to Newcastle | Class II | 4 |
| Ophir Road | Newcastle to I-80 | Class II | existing |
| Atwood Road | Mt. Vernon Road to SR 49 | Class II | 4 |
| Bell Road | Lone Star Road to Joeger Road | Class III | 2 |
| Bell Road | Joeger Road to I-80 | Class II | 8 |
| Cramer Road | Bell Road to SR 49 | Class III | 0 |
| Dry Creek Road | Joeger Road to SR 49 | Class II | 6 |
| English Colony Way | Sierra College Blvd to school | Class III | 3 |
| English Colony Way | School to Taylor Road | Class II | 4 |
| Fowler Road | SR 193 to Virginiatown Road | Class III | 2 |
| Garden Bar Road | Wise Road to Mt. Pleasant Road | Class II | 1 |
| Garden Bar Road | Mt. Vernon Rd to Hidden Falls Park | Class III | 1 |
| Gold Hill Road | SR 193 to Virginiatown Road | Class III | 4 |
| Horseshoe Bar Road | Loomis to Auburn Folsom Road | Class II | 5 |
| Joeger Road | Mt. Vernon Road to Bell Road | Class III | 2 |
| Joeger Road | Bell Road to Dry Creek Road | Class II | 3 |
| Joeger Road | Dry Creek Road to SR 49 | Class III | 3 |
| Lone Star Road | Bell Road to SR 49 | Class III | 0 |
| Lozanos Road | By Ophir Elementary School | Class III | existing |
| McCourtney Road | Lincoln to Wise Road | Class II | 2 |
| McCourtney Road | Wise Road to Camp Far West | Class III | 2 |
| Mears Drive | Hidden Falls Park to Mt. Vernon Road | Class III | - |
| Mt. Vernon Road | Wise Road to Mears Drive | Class III | - |
| Mt. Vernon Road | Mears Drive to Merry Knoll Road | Class II | 3 |
| Park Drive | Richardson Drive to Quartz Drive | Class II | 7 |
| Richardson Drive | Joeger Road to Dry Creek Road | Class III | existing |
| Richardson Drive | Dry Creek Road to Park Drive | Class II | 7 |
| Ridge Road | Gold Hill Road to Ophir Road | Class III | 4 |
| Virginiatown Road | Lincoln to Gold Hill Road | Class III | 2/4 |
| Wise Road | McCourtney Rd to Garden Bar Road | Class II | 1 |
| Wise Road | Garden Bar Road to Ophir Road | Class III | 3 |

## Physical Characteristics of Project Area Roads

**Guidelines and Standards.** The physical characteristics of study area roads have been described in terms of existing alignment and width and have been compared to Placer County's standard for roads as part of new construction, as well as guidelines for sight distance and horizontal curves.

A comparison to these standards does not by itself, however, indicate that roadways that do not need the standards for new construction are unsafe nor that the County has plans or funding for major reconstruction to improve rural roadways to meet the current standards.

***Placer County's Standard Specifications (2018) / Land Development Manual.*** Standard specifications include Design Plates that prescribe the configuration roads and intersections. https://www.placer.ca.gov/DocumentCenter/View/3814/Plates-100-to-127---Roads-PDF Detail Plate 102 notes that a *Rural Minor Residential* road provides two 12-foot travel lanes. A *Rural Secondary* road has two 16-foot travel lanes. The Land Design Manual https://www.placer.ca.gov/DocumentCenter/View/3833/Streets-PDF notes that horizontal curve radii for new construction shall be as specified in the Caltrans Highway Design Manual based on Maximum Comfortable Speed on Horizontal Curves.

***Sight Distance.*** Table 201.1 of the Caltrans Highway Design Manual (HDM) notes minimum stopping sight distance requirements for various speeds. These minimums range from 150 feet at 25 mph, to 200 feet at 30 mph to 360 feet at 45 mph. Placer County Plate 116 notes sight distance requirements for new intersections and driveway that are predicated on HDM Table 405.B Corner Sight Distance Requirements. Plate 116 requirements range from 275 feet at 25 mph to 385 feet at 35 mph and 495 feet at 45 mph.

***Curve Radii.*** The speed at which motorists can negotiate horizonal curves is depended on factors such as the length of radius and the rate of super-elevation. Placer County Land Development Manual makes reference to HDM Table 203.2 "Comfortable Speeds on Horizontal Curves", which has been replaced in the current HCM by Table 202.2 "Maximum Comfortable Speed on Horizonal Curves". This reference suggests that without super-elevation a 30 mph design would justify a 300 foot radius curve, while a 35 mph design would require a 475 foot radius and a 900 foot radius is needed for 45 mph.

**Area Roadways.** The text which follows describes the general characteristics of area roads.

***Mt. Pleasant Road*** extends for approximately three miles linking Big Ben Road and Mt. Vernon Road. The alignment Mt. Pleasant Road follows the rolling terrain of the foothills west of Auburn. The road itself is 20 to 22 feet wide with graveled shoulders of varying width. The posted speed limit is 40 mph.

***Mt. Vernon Road*** runs easterly from an intersection on Wise Road for about 7 miles into the City of Auburn. Mt. Vernon Road is typically 18-21 feet wide. No Parking signs have been installed in the area of HFRP. The speed limit on Mt Vernon Road is 40 mph.

***Mears Drive*** is a local road that connects the existing portion of Hidden Falls Park with Mt. Vernon Road. This two-lane road features 18-20 feet of pavement and limited shoulders. No Parking signs have been installed in the area of HFRP. The speed limit is 30 mph.

***Garden Bar Road*** is a local road that extends north from an intersection on Fruitvale Road across Mt. Pleasant Road along the west side of the Hidden Falls Park for approximately three miles to the Nevada County line. The alignment and width of Garden Bar Road varies greatly along its length. In the area of the park the road varies from approximately 12 to 20 feet in width. Shoulders are most often non-existent and horizontal curves with radii as short as 80 feet exist at various locations. The previous HFRP Expansion EIR identified improvements to Garden Bar Road north of Mt. Pleasant Road that were required to accommodate regular automobile traffic as well as the requirements of vehicles that were pulling horse trailers.

The following public roads are generally located in the area east and south of the proposed park expansion:

***Bell Road*** is a rural collector road that extends from an intersection on SR 49 north-westerly to Lone Star Road. The portion of Bell Road in the area of HFRP is a two-lane road that is typically 20 to 22 feet in width. The alignment of Bell Road from Lone Star Road to Joeger Road follows rolling terrain, but there are locations where the combination of topographical features and intersecting roadway locations results in curves that would not meet county standards for new construction. The road follows a 40-foot radius curve through the Auburn Valley Road intersection, and in the area between Auburn Valley Road and Cramer Road there are a pair of 175 foot – 200 foot horizontal curves. South of Cramer Road to Joeger Road there is a series of short radius curves that begins around Carter Canyon Road and continue through New Hope School Road. These horizontal curves combine with vertical roadway alignment and adjoining topography to limit sight distance at private driveways. In many locations achieve acceptable sight distance require looking across private property on the inside of horizontal curves, and this is true on most study area roads.

***Lone Star Road*** is a local road that connects Bell Road with SR 49. Lone Star Road is a two-lane road with pavement width that ranges from 18 to 22 feet. The alignment of Lone Star Road features several small radius curves, including several locations where road intersections were reconstructed. There are seven curves with radii ranging from 60 to 200 feet, including a tight curve immediately adjoining the Lone Star Road / SR 49 intersection. As noted with Bell Road, the combination of horizontal / vertical alignment and adjacent topography can limit sight distance. This is particularly true in the area of the Lone Star Valley Road intersection where sight distance to adjoining property is appreciably limited.

***Cramer Road*** is a local road that links Bell Road and SR 49. Cramer Road is a two-lane road with pavement width of 20 to 22 feet. The roadway alignment passes through several short radius curves, and seven curves appear to have radii in the range of 75 feet to 200 feet. While the combination of roadway curvature and adjoining topography limits sight distance at driveways in some locations, the area roughly 500 to 1,000 from SR 49 lacks shoulder through an area where the roadway lies along an embankment.

The following private roads exist in the area around Hidden Falls Regional Park and near the proposed expansion project and would provide access to the new park facilities.

***Auburn Valley Road*** is a private road that extends west from Bell Road to provide access to Auburn Valley Country Club and to an existing residential neighborhood. The paved width of this two-lane road varies from 19 to 22 feet. The alignment of Auburn Valley Road is gently rolling and there are no obvious sight distance limitations. However, the roadway lacks shoulders in what is a developed residential area.

***Curtola Ranch Road*** is a private road that extends north from Auburn Valley Road to a portion of the Harvego Bear River Reserve. The road is paved with a width of 18 to 20 feet for about 700 feet north of Auburn Valley Road. From that point on the roadway is graveled. The width narrows as the road extends northly and is a one-lane facility across a local dam.

The following private roads exist in the area around Hidden Falls Regional Park and near the proposed expansion project. These roads could provide access to new parking facilities on private lands that might be developed exclusive of the actual HFRP facilities, although no proposals for such private parking areas exists today. Further environmental review would be required for any parking on private property.

***Godley Road*** and ***Wilson Way*** are private roads that extend north from Mt. Vernon Road towards the southern boundary of the existing Hidden Falls Regional Park. Godley Road has an average width of 15 to 18 feet, while Wilson Way is generally 11 to 16 feet wide.

## Collision History

Placer County has a robust Traffic Accident Analysis System (TAAS) in which traffic collision data is collected and reviewed on an annual basis. It is recognized that many roadways throughout the County do not conform to current design standards and guidelines; however, the fact that a roadway does not meet current design standards does not necessarily make safety improvements essential. Traffic and roadway engineering design standards and guidelines have evolved over many years; therefore, many roadways that do not display any safety deficiencies no longer meet the current standards simply due to the passage of time since their construction. Conversely, some roadways that meet current standards may display safety deficiencies. The TAAS recognizes that reconstructing all roadways that do not meet current design standards would be financially infeasible, and that doing so would expend funds to upgrade many roadways that operate safely. Through the TAAS program, locations for detailed engineering investigations are identified and improvements to facilitate safe travel for all modes, if necessary, are implemented on a regular basis.

Consistent with the TAAS guidelines, three-years of collision history (January 1, 2014 – December 31, 2016) was obtained for study area roadways. This information was reviewed, and roadway collision rates were calculated based on the number of collisions per Million Vehicle Miles (MVM) of travel. This method permits comparison of roadways carrying different traffic volumes. In addition, reference to average collision rates for various types of facilities is a

helpful way to determine if a location is experiencing a higher than expected rate of collisions. Comparative collision rates are published by Caltrans based on statewide data, based on the formulas noted in Table 7.

| TABLE 7<br>2010 STATEWIDE AVERAGE COLLISION RATES | | |
|---|---|---|
| **Rural** | | |
| 2-lane Flat - Rural ≤55 | 0.82 | +0.35/ADT |
| 2-lane Rolling - Rural ≤55 | 1.14 | +0.35/ADT |
| **Suburban (outside City limits, but classified as urban by FHWA)** | | |
| 2-lane Suburban < 45 MPH | 2.39 | |
| 2-lane Suburban 45 - 55 MPH | 1.32 | |

As noted in Table 8, the study area roadways are generally experiencing collision rates at, or below, the comparative statewide average for their facility types. However, review of that data reveals that while Cramer Road has experienced only three collisions over this time period, because the traffic volume is low the accident frequency rate exceeds the statewide average for similar facilities.

**TABLE 8**
**COLLISION ANALYSIS (1/1/2014 - 12/31/2016)**

| Road Name | From | To | Length (miles) | Segment Related Collisions (3-year) | ADT | Collision Rate | Statewide Average |
|---|---|---|---|---|---|---|---|
| Ayers Holmes Road | Mt. Vernon Road | Wise Road | 0.9 | 0 | 412 | 0.00 | 1.99 |
| Bald Hill Road | Wise Road | Mt. Vernon Road | 2.1 | 2 | 1309 | 0.66 | 1.32 |
| Baxter Grade Road | Wise Road | Mt. Vernon Road | 2.1 | 3 | 971 | 1.34 | 1.50 |
| Bell Road | Lone Star Road | Richardson Drive | 5.2 | 9 | 1400 | 1.13 | 1.39 |
| Chili Hill Road | Lozanos Road | Gold Hill Road | 3.7 | 1 | 355 | 0.70 | 2.13 |
| Cramer Road | Bell Road | SR 49 | 1.6 | 3 | 558 | 3.07 | 1.77 |
| Crosby Herold Road | Fruitvale Road | Mt. Pleasant Road | 2.3 | 1 | 525 | 0.76 | 1.81 |
| Delmar Avenue | Sierra College Blvd | English Colony Way | 1.9 | 0 | 1126 | 0.00 | 1.13 |
| Fowler Road | SR 193 | Virginiatown Road | 0.9 | 3 | 3412 | 0.89 | 0.92 |
| Fleming Road | Gladding Road | McCourtney Road | 1 | 0 | 43 | 0.00 | 8.96 |
| Fruitvale Road | McCourtney Road | Gold Hill Road | 5.1 | 2 | 1486 | 0.24 | 1.38 |
| Gold Hill Road | SR 193 | Wise Road | 2.4 | 2 | 1542 | 0.49 | 1.37 |
| Lone Star Road | Bell Road | SR 49 | 1.8 | 1 | 1328 | 0.38 | 1.40 |
| McCourtney Road | Wise Road | Big Ben Road | 1.8 | 1 | 1192 | 0.43 | 1.11 |
| Millertown Road | Wise Road | Mt. Vernon Road | 2.3 | 0 | 150 | 0.00 | 2.39 |
| Mt. Vernon Road | Wise Road | Joeger Road | 4.8 | 13 | 2021 | 1.22 | 1.31 |
| Mt. Vernon Road | Joeger Road | City of Auburn | 3.4 | 16 | 2995 | 1.43 | 2.39 |
| Ridge Road | Gold Hill Road | SR 193 | 3.5 | 5 | 789 | 1.65 | 1.58 |
| Virginiatown Road | City of Lincoln | Gold Hill Road | 5.4 | 6 | 773 | 1.31 | 1.27 |
| Wise Road | McCourtney Road | Garden Bar Road | 2.5 | 5 | 2575 | 0.71 | 0.96 |
| Wise Road | Garden Bar Road | Ophir Road | 9.7 | 14 | 1394 | 0.95 | 1.39 |

**HIGHLIGHTED** values exceed statewide average by more than 10%

Additional review of the collision history was conducted for Cramer Road. As noted in Figure 4, one collision occurred immediately west of the SR 49 intersection, where a motorist DUI hit a fixed object. A second collision occurred 1,000 feet west of Oak Hollow Lane and involved a head-on collision between a vehicle and a motorcycle proceeding on the wrong side of the road. Cramer Road is in a curve at this location. The third collision occurred 1,400 feet east of Oak Hollow Lane when the driver was eating and allowed the vehicle to run off the road and strike a fence. The information available for these three collisions is not indicative of a particular pattern of accident cause or location.

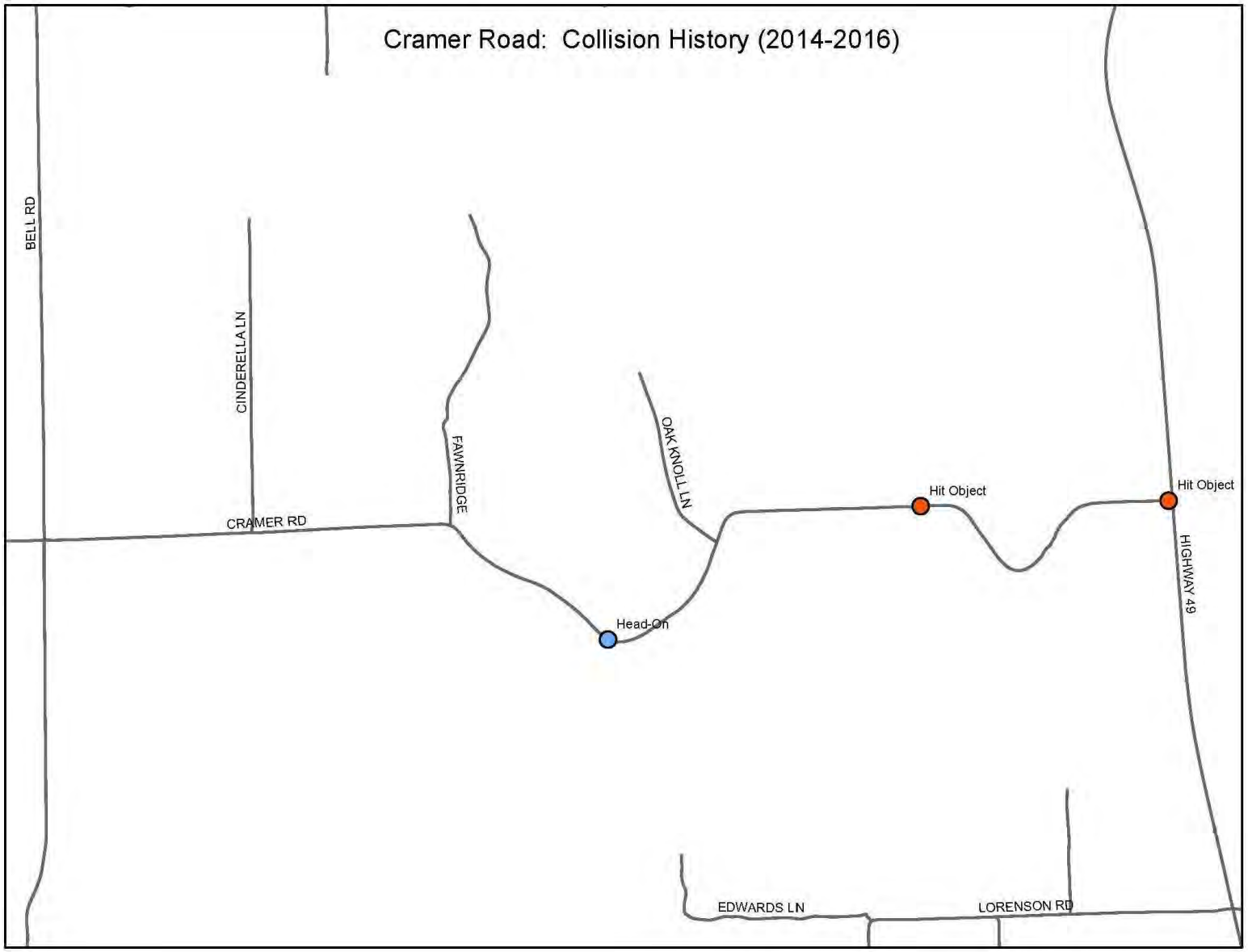
The Regional Bikeway Plan also presents information regarding bicycle related collisions that have occurred countywide from 2012 to 2016 (refer to Table 5 in the Bikeway Plan). A total of 74 collisions were identified, and the Bikeway Plan's Figure 20 illustrates the location of collisions. Review of that figure indicates that excluding incidents occurring on SR 49 in North Auburn, eight bicycle related collisions occurred in the study area.

Within the study area specific locations have been a concern to the community, and intersections on the State Route 49 corridor are of particular concern. Caltrans and Placer County have discussed measures to improve safety by slowing the speed of traffic on SR 49 and controlling opportunities to access the state highway. The solution most recently raised would involve installation of modern roundabouts at two or three intersections in the area between Auburn and the Bear River in lieu of traffic signals. Roundabouts would slow traffic and provide a safe location for accessing the state highway. Motorists accessing the highway at locations between the roundabouts would be able to turn right and use the next roundabout to make a u-turn, rather than making left turns across high speed traffic. While this plan may have merit, funding for the project has not yet been identified.

Placer County regularly monitors the status of its roads and takes corrective actions where needed. In the spring of 2016, the Department of Public Works and Facilities completed a Roadway Safety Sign Audit which recommends the replacement, relocation and installation of yellow warning signage at various locations on 62 roadways in Placer County. In November 2018 the Board of Supervisors authorized the *Roadway Safety Sign Audit and Sign Upgrade Project*. The need to complete this project is based upon safety analyses undertaken by the Department to identify high collision concentration locations that resulted in a safety evaluation of selected roadway corridors. This project undertakes to provide a systemic solution for these collision locations in the form of updating curve warning signage for the whole length of roadway. Current Caltrans standards as identified in the 2014 Manual of Uniform Traffic Control Devices (MUTCD) specify placement of new warning signs for roadway curves based upon the advisory speed of the curve, as well as replacement of signs due to the poor physical condition or lack of reflectivity of the sign. The scope of this project includes installation of approximately 1,800 new curve warning signs, relocation of 350 existing signs, replacement of 1,000 signs and removal of 1,300 signs along 62 County roadways. This project is expected to be constructed during the spring and summer of 2019.

Study area roadways addressed by this safety project include:

- Bell Road from Lone Star Road to SR 49
- Joeger Road
- Mt. Vernon Road




CRAMER ROAD COLLISION LOCATIONS

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figure 4

## PROJECT CHARACTERISTICS

### Project Site Plans and Improvements

The site plans developed for the four areas of the HFRP project are noted in Figures 5, 6, 7 and 8.

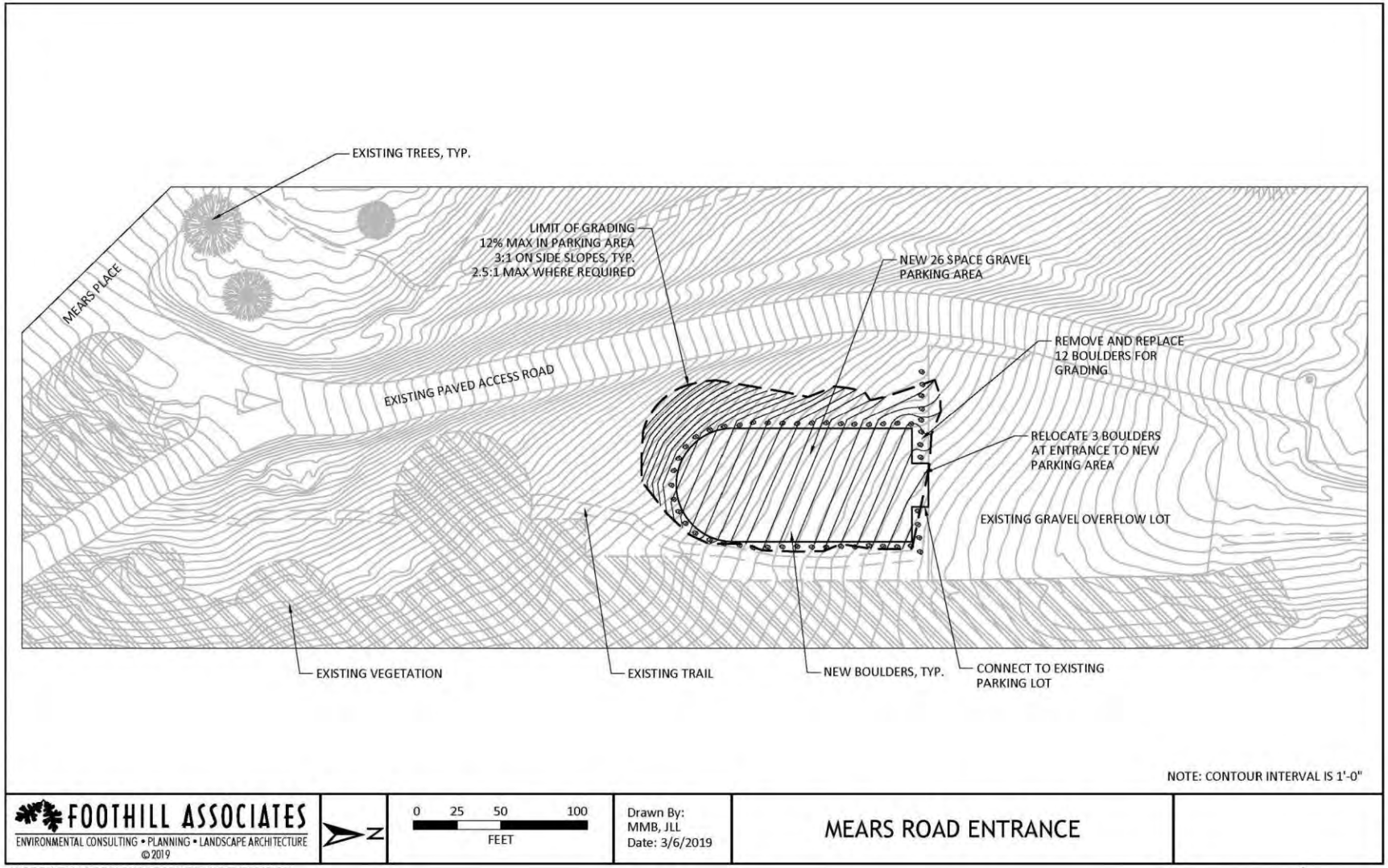
As noted the following improvements are included in each area:

**Curtola Ranch Site**. Access to this site from Auburn Valley Road will occur via an extension of Curtola Ranch Road. As part of that work, a minimum 20-foot seal coat or pavement section will be provided as noted under the project phasing discussion.

**Garden Bar Road Site.** Per the adopted use permit for the site, Garden Bar Road will be incrementally widened to provide a minimum 18-foot roadway section and to improve tight curves in order to accommodate passenger vehicles with subsequent improvements to accommodate vehicles pulling trailers. A new access intersection on Garden Bar Road will also be constructed.

**Mears Drive site.** No improvements to site access are planned with this project.

**Twilight Ride site.** Site access will be created on Bell Road. The proposed access is located roughly 240 feet south of the parcel's current driveway, but use of the existing access is considered an alternative. A northbound left turn lane is indicated conceptually in the current site plan. No other improvements are proposed.

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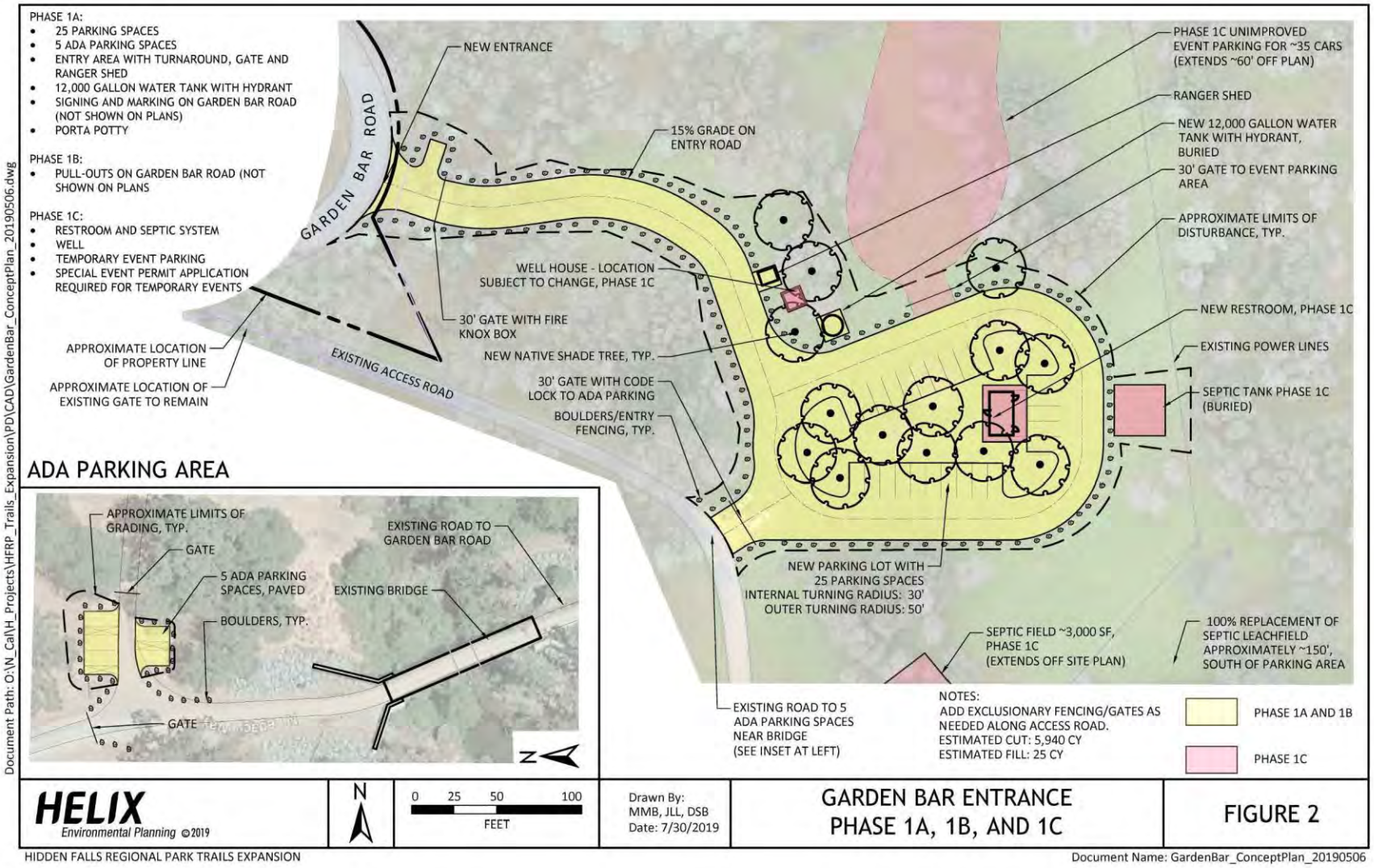
MEARS ROAD SITE

figure 5

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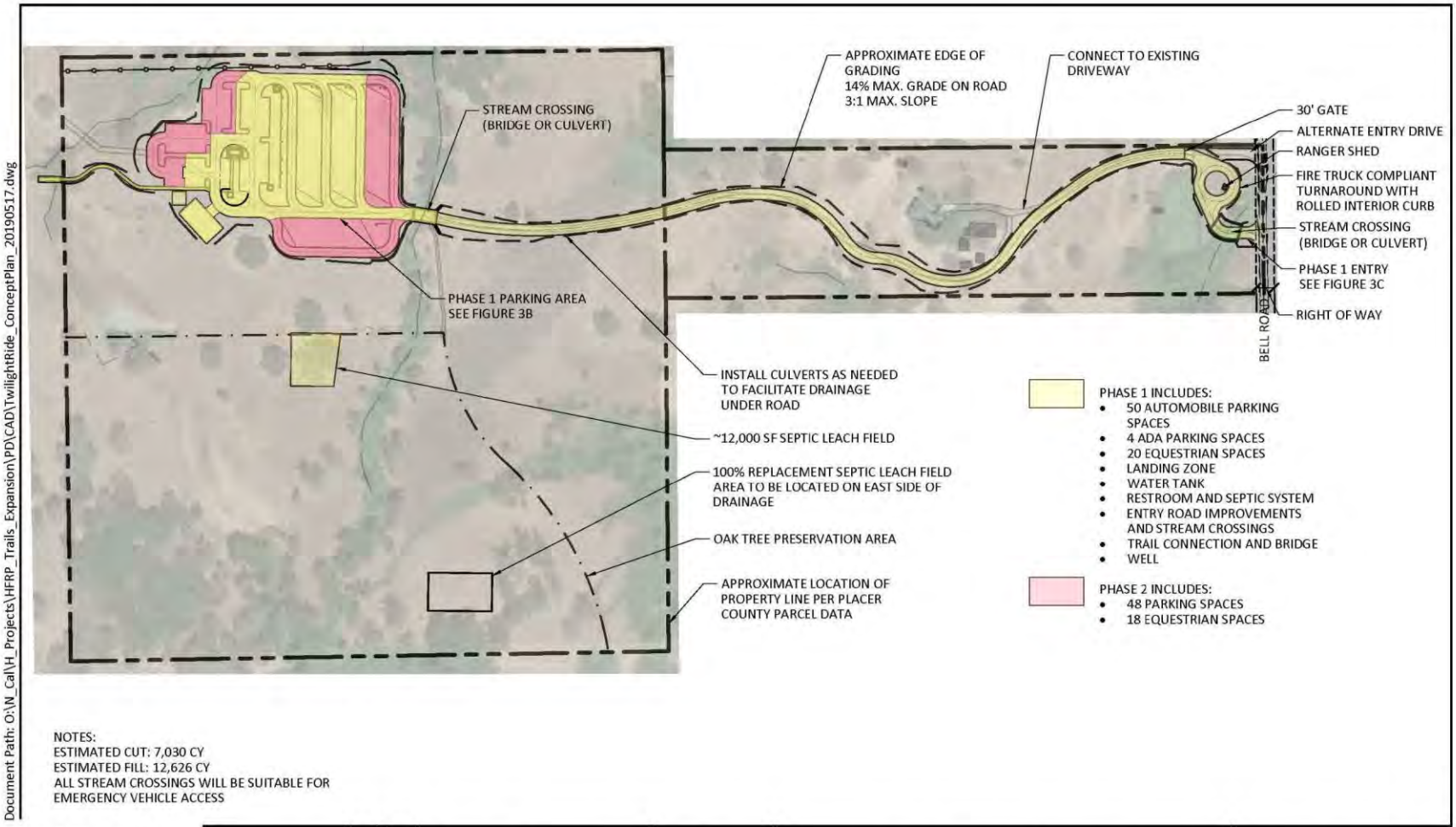
GARDEN BAR ROAD SITE

figure 6




NOTES:
ESTIMATED CUT: 7,030 CY
ESTIMATED FILL: 12,626 CY
ALL STREAM CROSSINGS WILL BE SUITABLE FOR EMERGENCY VEHICLE ACCESS

Document Path: O:\N_Cal\H_Projects\HFRP_Trails_Expansion\PD\CAD\TwilightRide_ConceptPlan_20190517.dwg

**HELIX** Environmental Planning ©2019

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Drawn By: MMB, JLL
Date: 7/30/2019

TWILIGHT RIDE ENTRANCE

FIGURE 3A

HIDDEN FALLS REGIONAL PARK TRAILS EXPANSION

Document Name: TwilightRide_ConceptPlan_20190517

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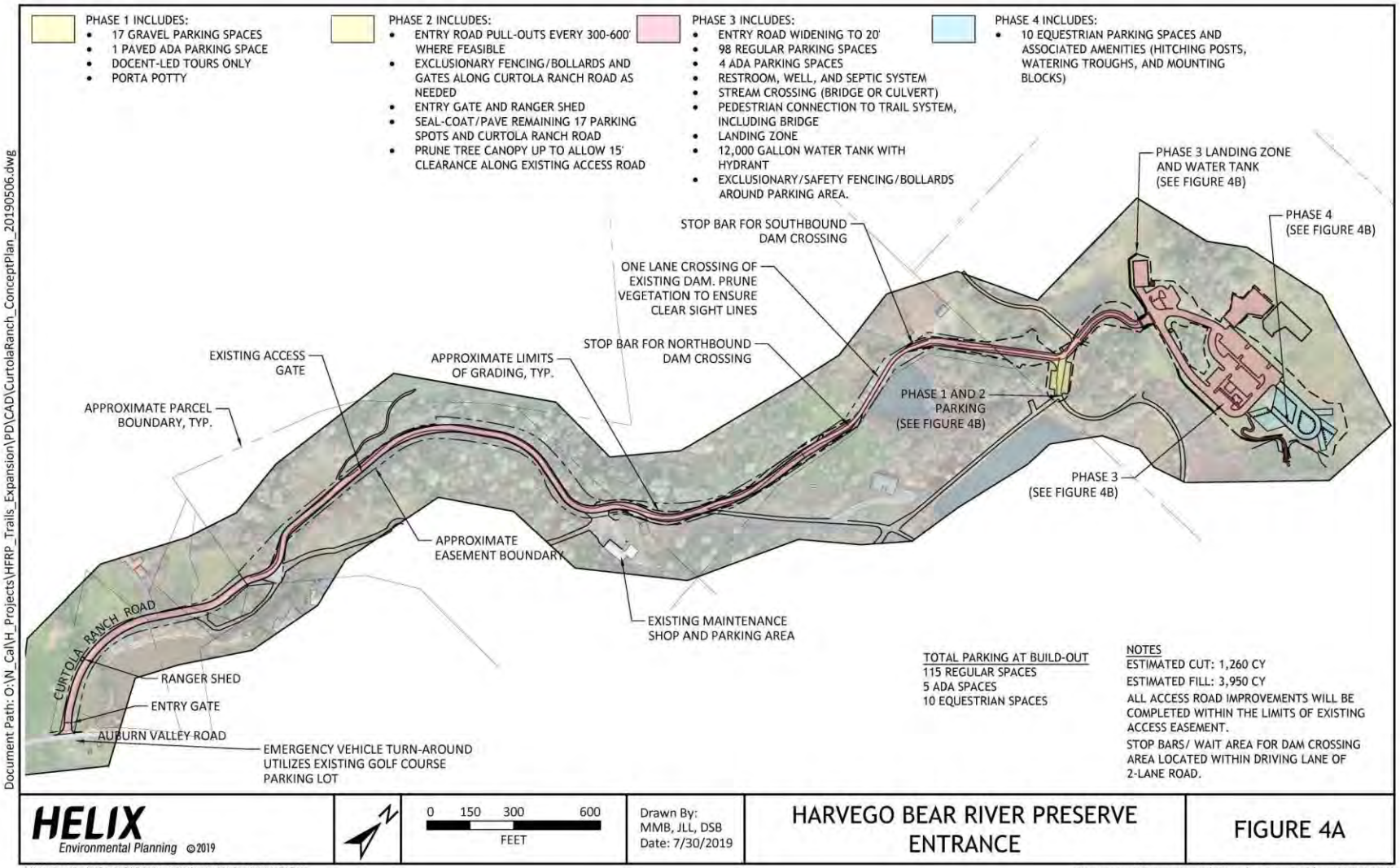
TWILIGHT RIDE SITE

figure 7

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HARVEGO BEAR RIVER PRESERVE SITE

figure 8

## Project Phasing

Each development area may proceed in phases, as noted below.

**Curtola Ranch Road (Harvego) area**. The Phasing plans include four phases:

***Phase 1*** Creation of 17 regular and 1 ADA spaces with access limited to docent-led tours.

***Phase 2*** 17 regular and 1 ADA spaces with access per reservations on a daily basis, with pull-outs.

***Phase 3*** 102 additional regular spaces and 4 additional ADA spaces, for a total of 119 regular and 5 ADA spaces with access per reservations permit system on a daily basis with Curtola Ranch Road improved to 20-foot minimum pavements except over the dam where staging locations at each end of the one lane section will be available.

***Phase 4*** Addition of 10 equestrian spaces for a total of 115 regular, 5 ADA and 10 equestrian parking spaces with no additional improvements beyond Phase 3.

**Garden Bar Road area.** The Garden Bar area was approved in 2010 with three phases linked to improvements to Garden Bar Road. While original Phases 2 and 3 remain, as part of the project a revised phasing plan is proposed that further breaks down Phase 1 to more clearly define utilization of this area in light of the reservation permit system.

The original Phasing Plan:

***Phase 1*** Occasional use by "classroom sized groups" with access the site through the Garden Bar entrance with an appointment so that the gate could be opened to allow entrance. No other improvements to Garden Bar Road.

***Phase 2*** Unrestricted access for regular vehicle with improvements to Garden Bar Road based on 18-foot roadway width.

***Phase 3*** Unrestricted access for vehicles pulling trailers with improvements to Garden Bar Road based on 20-foot roadway width.

The proposed Garden Bar Road area Phasing Plan includes:

***Phase 1-A*** 30 parking spaces used on weekends, holidays and other "high volume" days by permit with one permit per space per day. Improved signing and pavement markings would be added on Garden Bar Road.

***Phase 1-B*** Access to 30 spaces on any day, with each space permitted to turnover as anticipated for the overall HFRP project on weekends and holidays (i.e., 45 peak day permits). Special events would be permitted by using the allocated parking and permits. "Pull outs" would be installed at key locations on Garden Bar Road where existing right of way is available and where physical constraints make it possible to widen the road.

***Phase 1-C*** Access to 30 spaces per B PLUS the ability to concurrently accommodate a 200-person special event under a Special Event Permit Application (SEPA) required by the Parks Division for special events.

***Phase 2*** Access to a total of 45 regular and 5 ADA spaces under the overall HFRP reservation system limits (i.e., 83 peak day permits) with original approved Phase 2 improvements.

***Phase 3*** Access to a total of 45 regular, ADA and 20 equestrian spaces (i.e., 116 peak day permits) with original approved Phase 3 improvements.

**Mears Drive area.** No phasing plan is proposed.

**Twilight Ride area**. Two project phases are proposed.

***Phase 1*** Access to 54 regular and 4 ADA spaces and 20 equestrian parking spaces under reservation system on weekends and holidays with access as proposed.

***Phase 2*** Access to a total of 96 regular and 4 ADA and 40 equestrian parking spaces under reservation system on weekends and holidays with access as proposed.

## Project Operating Characteristics

**Parking / Reservation System Characteristics.** The amount of new vehicular traffic associated with the expansion of HFRP has been estimated based on the number of parking spaces to be provided and the anticipated turnover characteristics of those spaces.

The existing HFRP reservation system is assumed to continue to be implemented on weekends and on peak weekdays, and the number of parking permits that would be issued has been identified based on current demands.

Table 9 outlines the derivation of the HFRP's Saturday traffic characteristics. As indicated, 359 new parking spaces are assumed in addition to the 70 spaces that are part of the previously approved Garden Bar Road site. This total conservatively assumes up to 60 parking spaces that might theoretically be created on private property, although these spaces are not proposed as part of the HFRP Expansion. Thus, an overall total of 429 new parking spaces could be created.

It is important to note that any future proposal for parking on private property would be subject to further environmental review which would specially consider the adequacy of access and safety. The inclusion of these possible future parking spaces is intended to provide a worst case assessment of traffic impacts.

The number of parking permits that would be issued by Placer County has also been identified. As indicated, today Placer County makes available 187 Saturday parking permits for the 113 regular and overflow spaces at the existing Mears Drive facility. The ratio of permits to spaces is 1.66 permits per space, and this ratio is assumed to continue in the future for the regular spaces created with the HFRP Expansion.

In addition, while no proposal currently exists to create new parking areas on private property outside of HFRP, this analysis conservatively assumes that parking on private property outside of HFRP will be allowed 100 park permits.

Altogether, a total of 712 parking permits have been assumed to be made available for the new areas of HFRP, in addition to the 187 permits already offered at the Mears Drive facility.

**Trip Generation Forecasts**. As noted in Tables 9 and 10, the daily and peak hour trip generation associated with use of new facilities has been estimated based on trip generation rates derived from observation of existing HFRP facilities. The current traffic volume above the Mears Drive parking area with the reservation system was compared to the number of available permits or parking supply and resulting trip generation rates were created on a "per permit" basis. The travel associated with turning away motorists who arrive without a permit has also been quantified based on current experience but recognizing that increasing familiarity with the reservation system should reduce the number of "turn-away's" when the expansion project is completed.

***Daily Trips.*** As indicated, the new elements pf the HFRP expansion project, as well as trips from parking assumed on private lands are projected to generate 1,705 daily trips on Saturday and 790 daily trips on a weekday. Use of the 70 spaces already approved at the Garden Bar Road site could result in another 331 Saturday and 154 weekday daily trips. The total daily trip generation associated with proposed and approved but not built uses totals 2,036 Saturday daily and 944 weekday daily trips.

***Peak Hour Trips.*** As shown in Tables 9 and 10, peak hour traffic volumes at HFRP are expected to be highest on Saturdays. The proposed uses would result in 179 Saturday peak hour trips, which when added to the 36 trips occurring at the approved Garden Bar Road site yields 215 new Saturday peak hour trips. On weekdays these estimates are 79 p.m. peak hour trips, 15 p.m. trips from the Garden Bar Road site and an overall total of 94 p.m. peak hour trips.

**TABLE 9**
**HFRP EXPANSION SATURDAY TRIP GENERATION ESTIMATE**

| Location | Parking Spaces | | | | Permits Available[1] | Trips per Permit | | | | Trips | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily | Saturday Peak | | | Daily | Saturday | | |
| | Regular | Equestrian | ADA | Total | | | In | Out | Total | | In | Out | Total |
| ***Proposed Project*** | | | | | | | | | | | | | |
| Twilight Ride | 96 | 40 | 4 | 140 | 232 | 2.58[2] | 33% | 67% | 0.27[3] | 599 | 21 | 42 | 63 |
| Harvego Curtola Ranch Rd | 119 | 10 | 5 | 134 | 222 | | | | | 573 | 20 | 40 | 60 |
| Mears | 25 | 0 | 0 | 25 | 42 | | | | | 108 | 4 | 7 | 11 |
| Private | 57 | 0 | 3 | 60 | 100 | | | | | 258 | 9 | 18 | 27 |
| Total | 297 | 50 | 12 | 359 | 596 | | | | | 1,538 | 54 | 107 | 161 |
| Trips caused by turn-away's without permit[4] | | | | | | | | | | 167 | 9 | 9 | 18 |
| Project Total | | | | | | | | | | 1,705 | 63 | 116 | 179 |
| ***Prior Approval not yet Constructed*** | | | | | | | | | | | | | |
| Garden Bar (Prior approval) | 45 | 20 | 5 | 70 | 116 | 2.58 | 33% | 67% | 0.27 | 299 | 11 | 21 | 32 |
| Trips caused by turn-away's without permit[4] | | | | | | | | | | 32 | 2 | 2 | 4 |
| Previously approved total | | | | | | | | | | 331 | 13 | 23 | 36 |
| ***Total of Proposed Project Plus Prior Approval not yet Constructed*** | | | | | | | | | | | | | |
| Total | 342 | 70 | 17 | 429 | 712 | | | | | 1,837 | 65 | 128 | 193 |
| Trips caused by turn-away's without permits[4] | | | | | | | | | | 199 | 11 | 11 | 22 |
| **Grand Total with turn-away's** | | | | | | | | | | **2,036** | **76** | **139** | **215** |

[1] based on 187 Saturday permits offered at Mears for 113 parking space capacity = 1.66 permits per space.
[2] based on 348 daily trips at Mears on divided by 135 permits issued on June 16, 2018 = 2.58 trips per permit. The observed daily volume includes the effects of automobile – trailer combinations with multiple axels that would overstate actual vehicle trips, as well as the effect of staff travel, but no adjustment has been made in order to produce a conservative estimate.
[3] based on observed peak hour percentage of daily and directional split observed at Mears entrance.
[4] assume 1/3 the current turn-away rate observed at Mears due to increased knowledge of reservation system and improved cellular phone coverage. The current rate was 58 turn-away's out of 135 permits issued or 43%. One Third is 14%. Assume two daily trips per turn-away,

**TABLE 10**
**HFRP EXPANSION WEEKDAY TRIP GENERATION ESTIMATE**

| Location | Parking Spaces | | | | Unit | Trips per Parking Space | | | | Trips | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Daily | PM peak | | | Daily | PM Peak Hour | | |
| | Regular | Equestrian | ADA | Total | | | In | Out | Total | | In | Out | Total |
| ***Proposed Project*** | | | | | | | | | | | | | |
| Twilight Ride | 96 | 40 | 4 | 140 | Space | 2.20[1] | 27% | 73% | 0.22 | 308 | 8 | 23 | 31 |
| Harvego Curtola Ranch Rd | 119 | 10 | 5 | 134 | Space | | | | | 295 | 8 | 21 | 29 |
| Mears | 25 | 0 | 0 | 25 | Space | | | | | 55 | 1 | 5 | 6 |
| Private | 57 | 0 | 3 | 60 | Space | | | | | 132 | 4 | 9 | 13 |
| Total | 297 | 50 | 12 | 359 | Space | | | | | 790 | 21 | 58 | 79 |
| ***Prior Approval not yet Constructed*** | | | | | | | | | | | | | |
| Garden Bar (Prior approval) | 45 | 20 | 5 | 70 | Space | 2.20 | 27% | 73% | 0.22 | 154 | 4 | 11 | 15 |
| ***Total of Proposed Project Plus Prior Approval not yet Constructed*** | | | | | | | | | | | | | |
| Total | 342 | 70 | 17 | 429 | Space | | | | | **944** | **25** | **69** | **94** |

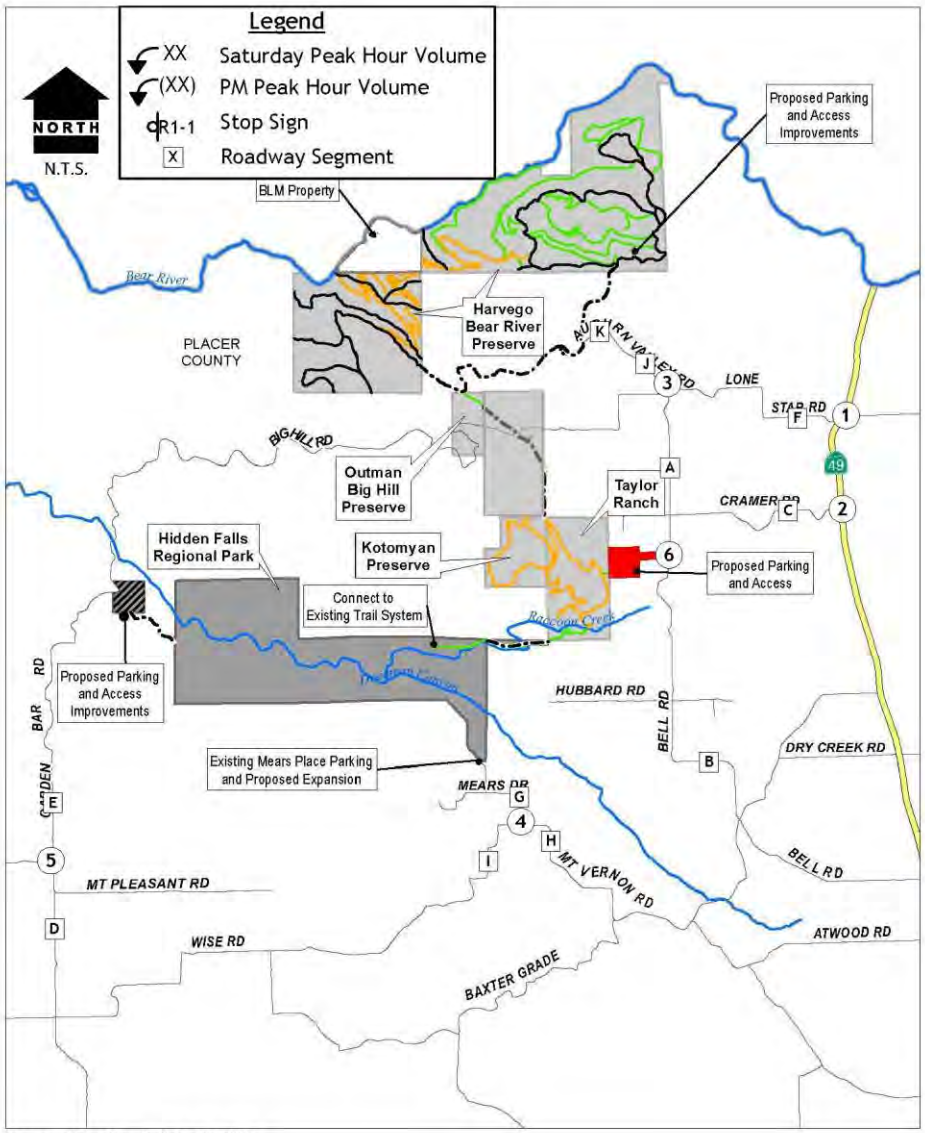
[1]Based on each space turning over once each day plus 10% for ancillary travel = 2.20 trips per space
[2]based on observed 10% in peak hour and directional split observed at Mears

**Trip Distribution.** Having determined the number of trips that are expected to be generated by the project, it is necessary to identify the directional distribution of project-generated traffic. For rural recreational facilities the distribution generally reflects the population distribution with area served by the facility. Because HFRP is a regional attraction, on weekends many trips originate in the Sacramento / Roseville area, which has a much larger population than the local Auburn area, with lesser shares traveling from areas to the north and east. Table 11 identifies the weekend directional distribution assumptions made for this analysis. Midweek characteristics would likely be similar but the share of trips originating locally would be greater.

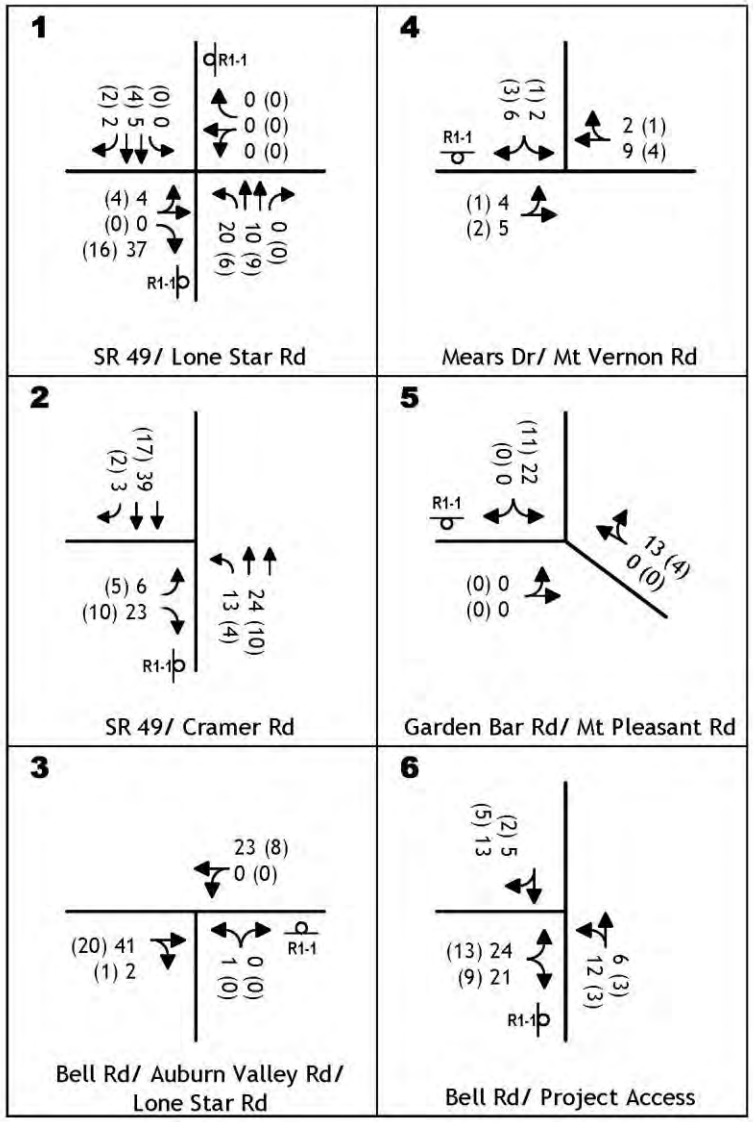
**TABLE 11**
**PROJECT TRIP DISTRIBUTION ASSUMPTIONS**

| Direction | Route | Percent of Total |
|---|---|---|
| North | SR 49 north of Lone Star Road | 5% |
| | SR 65 north of Wise Road | 5% |
| East | Auburn | 20% |
| West-South | Sacramento / Roseville / SF Bay Area | 70% |
| Total | | 100% |

**Project Trip Assignment.** The assignment of project traffic to the local area street system will reflect the alternative routes available between various areas of HFRP and ultimate destinations. The choice of access route was determined based on the relative difference in travel time along each route. Using the regional trip distribution assumptions noted previously, project trips were assigned to the local street system based on the least time path to each destination. Figure 9 presents resulting "project only" traffic for the trips associated with proposed and approved but unbuilt HFRP uses.




Source: Placer County 2017, PLT 2017

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# PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 9

## Existing Plus Project Traffic Conditions and Levels of Service

**Roadway Segment Level of Service.** Table 12 identifies the amount of daily traffic added to study area roads by the project at full build out and compares Existing and Existing Plus Project volumes. As indicated, the addition of project traffic does not result in any roadway segment operating with a Level of Service that exceeds the applicable minimum LOS C/D standard.

**Intersection Level of Service.** Figure 10 superimposes trips caused by the operation of new and approved HFRP uses onto current background traffic volumes. Table 13 compares the existing and "Plus Project" Levels of Service at study intersections. As indicated the addition of project trips does not result in any additional intersections operating with a Level of Service that exceeds the adopted minimum standard.

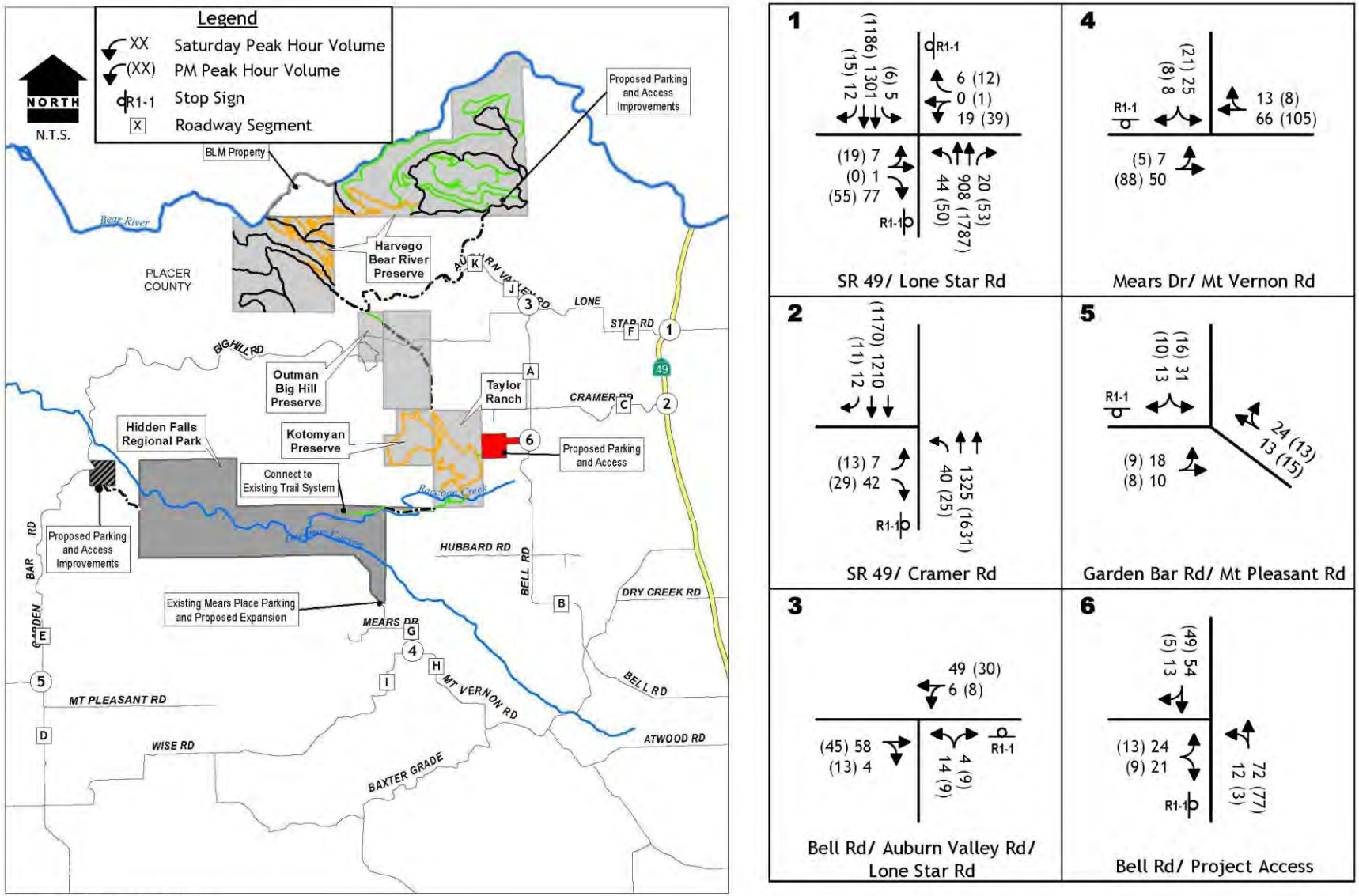
The **SR 49 / Lone Star Road intersection** will continue to operate with an overall Level of Service that exceeds the LOS D minimum. Because conditions exceed the minimum LOS standard with and without the HFRP project, the significance of the impact is determined based on 1) change in overall average delay and 2) satisfaction of peak hour traffic signal warrants. In this case, while the incremental change in delay caused by the project exceeds the 2.5 seconds allowed under Placer County criteria, rural peak hour traffic signal warrants are not satisfied. Because both criteria must be met under County guidelines, the impact is not significant.

**Traffic Signal Warrants.** Existing Plus Project traffic volumes were compared to peak hour warrant requirements to determine whether the addition of project trips results in the need for signalization. No study intersection will carry volumes that reach a level that satisfy warrants.

**TABLE 12**
**EXISTING PLUS PROJECT ROADWAY SEGMENT TRAFFIC VOLUMES AND LEVEL OF SERVICE**

| # | Road | Location | Class | Roadway Volume and Segment Level of Service | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Weekday | | | | | Saturday | | | | |
| | | | | Existing | | Existing Plus Project | | | Existing | | Existing Plus Project | | |
| | | | | Daily Volume | LOS | Daily Volume | | LOS | Daily Volume | LOS | Daily Volume | | LOS |
| | | | | | | Project | Total | | | | Project | Total | |
| ***Public Roads*** | | | | | | | | | | | | | |
| A | Bell Rd | Lone Star Rd to Cramer Rd | RC | 614 | A | 14 | 628 | A | 543 | A | 34 | 577 | A |
| B | Bell Rd | Joeger Rd to Cramer Rd | RC | 1,400 | A | 200 | 1,600 | A | 1,329 | A | 402 | 1,731 | A |
| C | Cramer Rd | Bell Rd to SR 49 | Local | 558 | A | 177 | 808 | A | 548 | A | 407 | 955 | B |
| D | Garden Bar Road | Wise Road to Mt. Pleasant Road | Local | 748 | A | 100 | 848 | A | 691 | A | 215 | 906 | A |
| E | Garden Bar Road | Mt. Pleasant Road to Park Entrance | Local | 318 | A | 154 | 472 | A | 316 | A | 331 | 647 | A |
| F | Lone Star Rd | Bell Rd to SR 49 | Local | 1,328 | A | 280 | 1,608 | A | 1,223 | A | 630 | 1,853 | B |
| G | Mears Drive | Mt. Vernon Road to Park Entrance | local | 493 | A | 56 | 649 | A | 790 | A | 120 | 910 | A |
| H | Mt. Vernon Rd | Mears Drive to Meyers Lane | RC | 2,010 | B | 80 | 2,090 | B | 2,679 | B | 168 | 2,847 | B |
| I | Mt. Vernon Rd | Ayers Holms Road to Buffalo Road | RC | 1,714 | A | 96 | 1,810 | A | 1,328 | A | 216 | 1,744 | A |
| ***Private Roads*** | | | | | | | | | | | | | |
| J | Auburn Valley Road | Bell Road to View Ridge Drive | Local | 935 | A | 294 | 1,229 | A | 884 | A | 664 | 1,548 | A |
| K | Auburn Valley Road | Fairway Court to Curtola Ranch Road | Local | 295 | A | 294 | 589 | A | 399 | A | 664 | 1,063 | A |

**BOLD** values exceed LOS C. **HIGHLIGHTED** values are a significant impact




Source: Placer County 2017, PLT 2017

*KD Anderson & Associates, Inc.*
Transportation Engineers

# EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

0090-09 RA 8/1/2019

figure 10

**TABLE 13**
**EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE**

| # | Location | Control | Weekday PM Peak Hour | | | | Saturday Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Existing | | EX Plus Project | | Existing | | EX Plus Project | |
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | EB/WB Stop | | | | | | | | |
| | (overall) | | **(106.3)** | **(F)** | **(110.3)** | **(F)** | **(93.4)** | **(F)** | **(101.2)** | **(F)** |
| | Eastbound approach | | 103.5 | F | 120.2 | F | 26.0 | D | 31.2 | D |
| | Westbound approach | | >300 | F | >300 | F | 195.6 | F | 298.8 | F |
| | Northbound left turn | | 11.9 | B | 12.0 | B | 12.9 | B | 13.3 | B |
| | Southbound left turn | | 16.5 | C | 16.6 | C | 10.2 | B | 10.3 | B |
| 2 | SR 49 / Cramer Road | EB Stop | | | | | | | | |
| | (overall) | | (15.6) | (C) | (16.9) | (C) | (13.0) | (B) | (15.5) | (C) |
| | Eastbound approach | | 18.8 | C | 20.05 | C | 14.6 | B | 17.9 | C |
| | Northbound left turn | | 11.3 | B | 11.5 | B | 11.8 | B | 12.3 | B |
| 3 | Bell Rd/Auburn Valley Rd/Lone Star Rd | EB Stop | | | | | | | | |
| | (overall) | | (8.5) | (A) | (8.7) | (A) | (8.3) | (A) | (9.0) | (A) |
| | Eastbound approach | | 8.8 | A | 9.0 | A | 9.0 | A | 9.4 | A |
| | Northbound left turn | | 7.3 | A | 7.3 | A | 7.3 | A | 7.4 | A |
| 4 | Mt. Vernon Road / Mears Drive | SB Stop | | | | | | | | |
| | (overall) | | (9.5) | (A) | (9.5) | (A) | (9.2) | (A) | (9.1) | (A) |
| | Southbound approach | | 9.8 | A | 9.8 | A | 9.4 | A | 9.5 | A |
| | Eastbound left turn | | 7.5 | A | 7.5 | A | 7.4 | A | 7.4 | A |
| 5 | Mt. Pleasant Road / Garden Bar Road | SB Stop | | | | | | | | |
| | (overall) | | (8.1) | (A) | (8.4) | (A) | (8.1) | (A) | (8.7) | (A) |
| | Southbound approach | | 8.6 | A | 8.8 | A | 8.8 | A | 9.2 | A |
| | Eastbound left turn | | 7.3 | A | 7.3 | A | 7.3 | A | 7.4 | A |
| 6 | Bell Road / Twilight Ride Access | EB Stop | | | | | | | | |
| | (overall) | | - | - | (8.8) | (A) | - | - | (8.9) | (A) |
| | Eastbound approach | | | | 9.1 | A | | | 9.3 | A |
| | Northbound left turn | | | | 7.3 | A | | | 7.4 | A |

(XX) is overall weighted average delay and LOS for those movements yielding right of way
**BOLD** values exceed minimum overall LOS standard **HIGHLIGHTED** values are a significant impact

## Project Access

The Garden Bar Road and Twilight Ride project areas create new access onto local public roads, and the adequacy of these access points has been considered with regards to applicable safety and design standards.

**Description**. The characteristics of the two access points have been identified. The ***Garden Bar Road access*** is planned at a location previously evaluated as part of the preceding EIR and approved on Garden Bar Road. As noted in the site illustration, the new connection is located within a tight horizontal curve at a location that allows exiting traffic to have views in each direction. No further analysis of this access is required.

The ***Twilight Ride site access*** is located on Bell Road roughly 1,800 feet south of the Cramer Road intersection. The site frontage is at the southern end of a long straight section of Bell Road, and the road curves to the right in the area beyond the project frontage.

**Sight Distance at Twilight Ride Access.** The available sight distance at Twilight Ride access point was determined through engineering evaluation of the proposed site plans and was then compared to applicable Placer County standards (Plate 116) for access to public roads. Placer County typically designs left turn lanes based on the greater of the posted speed limit and the observed 85$^{th}$ percentile speed. As noted earlier, the speed limit on Bell Road is 35 mph, and Placer 116 requires 440 feet of sight distance from a location measured 15 feet from the edge of the travel way. However, Plate 116 notes that "*where restrictive conditions do not allow compliance with the specific sight distance requirements the engineer may approve a reduction of the corner sight distance to no less than the minimum sight distance as outlined in the Caltrans Highway Design Manual (HDM).* HDM table 201.1 notes that the minimum stopping sight distance at 40 mph is 300 feet.

Because Bell Road is straight north of the proposed access, the view looking left to the north will satisfy the Plate 116 requirement. Looking right to the south, the alignment of Bell Road curves, and the view along the sight line required by Plate 116 would pass through existing brush on the project site and then cross a portion of the adjoining parcel. To meet Plate 116 requirements the brush will need to be trimmed, and it will be necessary to ensure that no new obstructions develop along the line of site access the adjoining parcel. This view is behind the fence and may lie within the existing public right of way or may cross private property depending on the location of right of way in this area. The minimum stopping distance requirement of 300 feet can be provided but could still require a view across a smaller potion the adjoining parcel.

The Twilight Ride plan includes the alternative of creating project access at the parcel's current driveway further north. This location is farther from the curve on Bell Road, and Plate 116 requirements could be met looking south without the view crossing the adjoining parcel.

**Twilight Ride Access Improvements - Plate 116 Approach Tapers.** Plate 116 also requires that rural roads be developed with approach tapers that provide space for turning motorists to

decelerate outside the flow of through traffic and to accommodate the turning requirements of trucks and vehicles pulling trailers. As a practical matter these features also provide "wayfaring" assistance to motorists by differentiating between the design of commercial driveways and the design of access to individual private residences. Plate 116 guidelines for 40 mph design require 40-foot radius curve returns and 150-foot long approach tapers in advance of the returns in each direction. As a practical matter, Placer County has in the past approved new access in restricted areas with improvements that deviate from Plate 116 improvement requirements.

At the Twilight Ride site the centerline of the proposed access location is roughly 80 feet from parcel's southern boundary. Thus the 150 foot taper would begin along the edge of pavement roughly 122 feet south of the property line and widen to about 8 feet at the property line. Depending on the right of way location in this area, this work may encroach into the adjoining parcel. A shorter taper may be needed to avoid encroaching into the adjoining parcel, and this deviation from Plate 116 would require approval from Placer County's Director of Public Works.

The alternative Twilight Ride access location appears to have a similar constraint as this driveway location adjoins the parcel's northern boundary. Deviation from the Plate 116 guideline may be needed in this location as well.

**Need for Left Turn Lanes at Twilight Ride Access.** The extent to which a separate left turn lane will be justified at the project's Twilight Ride access point has been investigated based application of published criteria to long term cumulative volumes occurring in the Saturday peak hour.

The methodology employed by Placer County and other public agencies was used to quantitatively determine whether left turn lanes are justified at un-signalized intersection. The American Association of State Transportation and Highway Officials (AASHTO) have identified guidelines for the installation of left turn lanes in their publication *A Policy on Geometric Design of Highways and Streets*. AASHTO guidelines take two forms. These guidelines are presented the 11th Edition (2011) in their Exhibit 9-29 and Table 14 and base the need for a left turn lane on the volume of approaching and opposing traffic on the mainline road and the relative percentage of that traffic that turns. These criteria are applicable to intersections where the major street traffic proceeds freely and side street traffic is controlled by stop signs.

The AASHTO publication was updated in December 2018 and different guidelines are now available. The new guidelines suggest that a left turn lane could be beneficial based on the volume of traffic turning and the total volume per lane on the street. This guidance is presented in their Figure 9-36 Table 15 which follows. These guidelines also suggest volume thresholds for creation of a "bypass" lane that, absent a full turn lane, would allow through traffic to proceed around a vehicle stopped to turn left at a "tee" intersection. The information supporting the 2018 guidelines note, however, that *The volume based guidelines or warrants presented below indicate situations where a left turn lane may be desirable, not necessarily situations where a left-turn lane is definitely needed.*

| TABLE 14<br>ASSESSMENT OF JUSTIFICATION FOR LEFT TURN LANES<br>UNDER 2011 AASHTO | | | | |
|---|---|---|---|---|
| **Opposing Volume (veh/hr)** | **Advancing Volume (veh/hr)** | | | |
| | **5% Left Turns** | **10% Left Turns** | **20% Left Turns** | **30% Left Turns** |
| **40-mph operating speed** | | | | |
| 800 | 330 | 240 | 180 | 160 |
| 600 | 410 | 305 | 225 | 200 |
| 400 | 510 | 380 | 275 | 245 |
| 200 | 640 | 470 | 350 | 305 |
| 100 | 720 | 515 | 390 | 340 |
| **95** | | **119** | **119** | |

Source: *A Policy on Geometric Design of Highway and Streets, AASHTO, 2011.*
**RED** values are CUMULATIVE Plus Project Saturday Volumes at Twilight Ride access

| TABLE 15<br>ASSESSMENT OF JUSTIFICATION FOR LEFT TURN LANES<br>UNDER 2018 AASHTO | | |
|---|---|---|
| **Left Turn Lane Volume (VPH)** | **Major Road Two-Lane Highway Peak-Hour Volume (VPH/Lane)** | |
| | **Three-Leg Intersection** | **Four-Leg Intersection** |
| | **Warrants a Left Turn Lane** | **Warrants a Left Turn Lane** |
| 5 | 200 | 150 |
| 10 | 100 | 50 |
| **12** | **104** | **-** |
| 15 | 100 | 50 |
| 20 | 50 | <50 |
| 25 | 50 | < 50 |
| 30 | 50 | < 50 |
| 35 | 50 | < 50 |
| 40 | 50 | < 50 |
| 45 | 50 | < 50 |
| 50 or more | 50 | < 50 |

Source: *A Policy on Geometric Design of Highway and Streets, AASHTO, 2018.*
**RED** values are CUMULATIVE Plus Project Saturday Volumes at Twilight Ride access

As noted in Table 14, the volume of traffic anticipated at the Twilight Road access falls well below the level justifying a left turn lane under 2011 AASHTO guidelines. Alternatively, the projected cumulative plus project Saturday volumes do satisfy the 2018 AASHTO warrant. Placer County has considered the need for left turn lanes on rural roads as part of consideration of other development proposals. Factors such as the frequency of volumes reaching warrants levels, the availability of adequate sight distance and the nature of motorists attracted to the site are considered. In this case, a left turn lane would be desirable since many motorists visiting HFRP may be unfamiliar with the local road system***. A left turn lane will be required at the Twilight Ride site.***

The extent to which a portion of Twilight Ride can be operated without a left turn lane has been considered. Based on Table 15 a left turn lane would not be needed when the left turn volume was fewer than 10 left turns per hour. Proportionately 9 left turns represent 75% of the left turn demand at full occupancy. Therefore 75% of the Twilight Ride parking supply could be created before a left turn lane was needed.

The characteristics of an applicable left turn lane can be determined from the guidelines contained in Chapter 4 the Caltrans Highway Design Manual (HDM). Under HDM guidelines the lane and it entry bay taper should be long enough to accommodate storage for a two-minute accumulation of turning cars, or a minimum of two vehicles. In addition, the lane and bay taper should also provide space for deceleration, which in the case of 40 mph design is 315 feet. HDM guidelines do allow a reduction in deceleration speed at the bay taper of up to 20 mph, which would reduce the deceleration requirement appreciably. A full 40 mph design would have a bay taper and lane that totaled 365 feet. Assuming that the deceleration distance into the pocket to the back of queue from 20 mph was 150 feet, the bay taper and pocket could be as short as 200 feet. The final left turn lane design will need to meet Placer County requirements.

In addition to the lane itself, a transition area is needed at each end to create the lane. Depending on whether the lane is created by widening on one or both sides of centerline, these transitions are 320 or 160 feet long for 40 mph design.

## Impacts Caused by Project Phasing

With the exception of the Mears site improvements, each of the three HFRP areas is expected to be developed in phases, and the ramifications of phased development are noted below.

**Curtola Ranch Rd (Harvego) Phasing**. The traffic impacts associated with phased implementation of the Curtola Ranch site have been evaluated.

**Phase 1** Access is permitted to 17 regular and 1 ADA spaces on weekends and holidays under the control of docent-led tours. Assuming each space turns over once, this level of activity would generate 36 daily trips. This use level would be similar to that occurring with the current site visitation conducted by the Conservancy. Roughly 3 to 5 times each year docent lead tours of 5 to 15 vehicles have visited the area. Under this phase the project will add traffic to a roadway that

in selected locations cannot accommodate concurrent two-directional travel. However, because no other traffic uses that portion of the road and all traffic will enter or exit at once, this level of activity can be accommodated safely.

**Phase 2** Access is permitted to 17 regular and 1 ADA spaces with each space permitted to turnover as anticipated for the overall HFRP project (i.e., 30 permits. Pull outs would be constructed along Curtola Ranch Road. Saturday traffic would total 86 daily trips (i.e., 78 trips by guests and 8 trips by "turn-away's". This use level would not require full roadway widening, but because project traffic will increase the possibility of opposing vehicles meeting on narrow segments of Curtola Ranch Road, "pull outs" should be installed at key locations where physical constraints make it possible to widen the road somewhat. Ideally pull-outs would be installed within the areas of sight distance limitation on horizontal curves, and they would provide room for a vehicle outside of the two-lane travel way. However, it may not be possible to widen Curtola Ranch Road to that extent nor to place pullouts at all optimal locations due to physical constraints. Pullouts should be accompanied by applicable signs. At a minimum the pull-out width should increase the total roadway width (including pullout) to 18 feet to allow vehicles to pass. Pullouts should be provided on 300-600 foot spacing.

**Phase 3** Another 102 regular and 4 ADA spaces would be added for a total of 119 regular and 5 ADA spaces that will be available with access per reservations permit system on weekends and holidays (206 permits). All proposed roadway improvements will be installed, and Curtola Ranch Road will be improved to 20 foot minimum pavement, except over the dam where staging locations at each end of the one lane section will be available. This level of activity would result in 589 daily trips (i.e., 531 trips by guests and 58 trips by "turn-away's").

**Phase 4** 10 equestrian spaces will be added for a total of 119 regular, 5 ADA and 10 equestrian parking spaces that will be available with access per reservations permit system on weekends and holidays (222 permits). No additional roadway improvements will be made.

**Garden Bar Road Site Phasing.** The original Garden Bar Road area approvals included three phases. The existing Conditional Use Permit (CUP) for HFRP allows for a parking area that would be accessed via Garden Bar Road. The 2010 EIR contained a detailed phased plan to develop parking in this area that included within Phase 1 a public access gate, connecting roadway to the existing access road, fencing and cattle guards on the access road, along with a staging area. Phase 1 permitted "occasional classroom sized groups" to access the site through the Garden Bar entrance with an appointment so that the gate could be opened to allow entrance. Subsequent phases 2 and 3 allowed regular access with staged Garden Bar Road improvements to address regular vehicle access and subsequently vehicles pulling trailers, respectively.

The proposed Garden Bar Road Phasing plan addressed by this project makes use of the reservations system to accommodate initial use with limited Garden Bar Road improvements and creates three initial phases which are evaluated below.

**Phase 1A.** Access would be permitted to 25 regular spaces and five ADA spaces on weekends and holidays only with each space only allowed one occupant per day (i.e., 30 permits). This phase would generate 85 daily trips at the assumed trip generation rate (i.e., 77 guest trips and 8 "turn-away's"). This interim scenario adds a minimal amount of additional traffic to Garden Bar Road. As the last EIR anticipated 56 daily trips for "classroom size events" the trip generation for phase 1A is similar to the forecast for the permitted use. With implementation of the County's reservation system it is unlikely that weekend traffic would be concentrated into any particular time period. As a result, major roadway improvements are not needed but measures to provide motorists with additional information about the conditions on Garden Bar Road should be provided through pavement markings, signing and tree trimming to improve sight distance. Additional traffic control devices (i.e., signing and markings) that address the locations where sight distance is limited and pavement width is narrow will be applicable. The exact location of signing and markings would be determined by Placer County staff.

**Phase 1B.** No additional parking would be created, and access is permitted to 30 spaces on any day with each space permitted to turnover as anticipated for the overall HFRP project (i.e., 50 peak day permits). Saturday traffic would total 143 daily trips (i.e., 129 guest trips plus 14 "turn-away's"). Special events would be permitted by using the available parking and permits. This scenario results in daily trip generation which exceeds that forecast for "occasional classroom sized events" in the 2010 DEIR but is less than that previously forecast in the 2010 EIR for regular operation of the Expansion (i.e., 255 weekday and 460 Saturday daily trips). With the County's reservation system it is unlikely that trips will be concentrated to short time periods. While the major improvements identified in the DEIR (i.e., overall improvements to provide 18' pavement width) are not required at this traffic volume level, operational controls and safety improvements are justified.

The signing and marking measures and tree maintenance needed for phase 1-A remain applicable. Because project traffic will increase the possibility of opposing vehicles meeting on narrow segments of Garden Bar Road, paved "pull outs" should be installed at key locations on Garden Bar Road where existing right of way is available and where physical constraints make it possible to widen the road somewhat. Ideally pull-outs would be installed near the top of crest vertical curves or within the areas of sight distance limitation on horizontal curves, and they would provide room for a vehicle outside of the two-lane travel way. However, it may not be possible to widen Garden Bar Road to that extent nor to place pullouts at all optimal locations due to physical constraints. Pullouts would be a priority in the areas of very narrow pavement width (i.e., less than 16 feet of pavement). Pullouts should be accompanied by applicable signs. At a minimum the pull-out width should increase the total roadway width (including pullout) to 18 feet to allow vehicles to pass. Pullouts should be provided on 300-400 foot spacing in these areas, and eight to ten pullouts should be anticipated along Garden Bar Road.

**Phase 1-C.** Access is permitted to 30 spaces per B PLUS the ability to concurrently accommodate a 200-person special event under a SEPA. Assuming private automobiles @ 2.5 persons per vehicle an event could add 160 additional daily trips to the Phase 1B estimate for a total of 303 daily trips.

The daily trip generation forecast for this scenario exceeds the 2010 DEIR's weekday projections for regular operation of HFRP and is less than the DEIR's forecast for weekday conditions. The forecast assumes that 80 vehicles would be traveling to a special event, and because this traffic could be concentrated into relatively short periods before and after an event, this traffic could be managed under a temporary event permit using traffic control personal as needed. An event would be accompanied by a Traffic Management / Control Plan that required by the Parks Division.

**Phase 2**. Access is permitted to a total of 45 regular and 5 ADA spaces under the overall HFRP reservation system limits (i.e., 83 peak day permits generating 236 daily trips). This forecast is less than the 2010 DEIR estimate for Garden Bar Road site (i.e., 460 Saturday trips). This phase would be accompanied by the improvements included under the current permit (i.e., 18' widening.

**Phase 3** Access is permitted to 45 regular, 5 ADA and 20 equestrian spaces (i.e., 116 peak day permits generating 337 daily trips) which is full buildout. This forecast is less than the 2010 DEIR estimate for Garden Bar Road site (i.e., 460 Saturday trips). This phase would be accompanied by the improvements included under the current permit (i.e., 20' widening) for access by vehicles pulling trailers.

**Twilight Ride Site Phasing**. The traffic impacts associated with phased implementation of the Twilight Ride site have been evaluated.

**Phase 1** Access to 50 regular spaces four ADA and 20 equestrian spaces with each space turning over per the HFRP reservation system (123 permits) would result in 351 daily trips on Saturday (i.e., 317 trips by guests and 34 trips by "turn-away's") . This phase represents 53% of the total planned parking supply. As noted in the preceding discussion of site access, because a left turn lane is not needed until 75% of the parking supply is available, a left turn lane would not be required with this phase. Other access improvements under Plate 116 would be installed, and off-site safety and overflow parking mitigations would need to be implemented.

**Phase 2** Construction of 48 additional regular spaces, and 18 more equestrian spaces for a total of 96 regular, 4 ADA and 40 equestrian spaces, which represents full development of this area. All access improvements, including the left turn lane on Bell Road, would be completed.

## Impacts to Alternative Transportation Modes

The extent to which the proposed project may impact pedestrian and bicycle circulation has been considered from the standpoint of the additional use of existing alternative facilities by persons visiting HFRP as well as the incremental increase in conflicts between pedestrians/bicyclists/ automobiles created by project vehicle trips.

**Pedestrians.** While the rural location of existing and proposed HFRP facilities would suggest that the project would be unlikely to generate appreciable pedestrian activity, experience over the history of HFRP suggest that pedestrians could walk to future sites from off-site parking locations if measures are not taken to limit this activity. When the Mears Drive site opened initially overflow parking demand spilled over onto adjoining streets and generated pedestrians walking to and from the park. Because pedestrian facilities were not available and road width was insufficient for concurrent two-way automobile travel and pedestrians Placer County responded by installing numerous "No Parking" signs on the roads around the park and, more recently, instituted the peak day reservation which in combination with gated access reduced the likelihood of pedestrians.

The current operation assumptions for the expanded HFRP assume that access to all areas will continue to be managed and limited on peak days. Parking lot access would not be controlled on low demand days, with the expectation that the available parking spaces will exceed demand with little reason for visitors to park off-site. However, there is no guarantee that occasionally visitors may not elect to park along the roads adjoining park entrances. Pedestrian traffic along roads that lack applicable facilities for this activity and two-way automobile travel is a potential safety issue. While not expected to occur, this impact could be mitigated by installing 'No Parking" restrictions if the need arises.

**Bicycles.** To the extent that HFRP visitors might elect to ride to HFRP, the project could generate additional bicycle traffic on study area roads. As noted in the existing setting, study area roads are used frequently by recreational bicyclists who share the roads which lack bicycle lanes or wide paved shoulders. It is important to note that off-road cyclists who would use HFRP facilities would not ride their bicycles to the site. While the amount of regular bicycle activity that might be generated by HFRP visitors is unknown, the project will incrementally contribute to the use of study area roads for this purpose.

Alternatively, the project will add automobile traffic to rural roads that are already used by bicyclists. As noted in Table 12, the HFRP project could increase the traffic volume on rural roads by up to 664 vehicles per day. However, the amount of traffic added to these roads does not result in a capacity deficiency as measured in terms of roadway segment Level of Service, and the traffic increase would not appreciably worsen the existing situation for bicyclists.

The existing Placer County CIP Benefit Districts that encompass the areas around HFRP have identified funds towards the costs for improvements to many rural arterial and collector roads. As noted later in this report in Table 16 (Placer County CIP Benefit District Projects), these improvements range from shoulder widening to road realignment. Roads that are affected include:

- Mt. Vernon Road
- Bald Hill Road
- Crater Hill Road
- Chili Hill Road
- Lozanos Road
- Wise Road

These improvements could also improve bicycle safety in this area, although only the Mt. Vernon Road improvement addresses a road that provides direct access to HFRP.

## Automobile Safety Impacts

**Collision Frequency – County Roads**. The project will add traffic to the existing Placer County roads surrounding the project, and most of these roads do not meet current standards for the design of new streets. Incrementally, any traffic increase is likely to result in a proportionate increase in the number of collisions based on historic accident frequency rates. For example, the project could add 250 (weekday) to 480 (Saturday) vehicles per day to Cramer Road. This represents an increase of roughly 45% in the current weekday volume and 88% of the current Saturday volume occurring between Bell Road and SR 49. As noted earlier, 3 collisions have occurred over the last 3 years in this area. After accounting for weekly traffic variation, the traffic volume increase accompanying the project could result in another 0.6 collisions per year. Similarly, the project's traffic increase on Lone Star Road would represent 22% of current weekday and 52% of current Saturday traffic, and because the collision experience on this road is lower, the project could result in another 0.10 collisions per year.

The project will add traffic to a roadway that experiences collisions at a rate that exceeds the statewide average for similar facilities, and as a result ***the project's impact to safety on Cramer Road is considered to be potentially significant.***

Measures to improve safety and reduce future collisions on Cramer Road were considered. Because no apparent patterns for collision types or locations were identified, general improvements were considered including:

- Evaluate existing traffic control devices for conformity with the current MUTCD and upgrade as needed for consistency or for condition. This measure could also be applied to other applicable streets that are not being addressed this summer by the County's Safety Audit Program, such as Lone Star Road.
- As part of long-range planning consider improvements that reduce the volume of traffic on Cramer Road. For example, the plan for SR 49 roundabouts could involve new roundabout intersections at Lone Star Road and Lorensen Road with a continuous raised median between these locations. Thus access at the SR 49 / Cramer Road intersection may be limited to right turns in and out only, and this measure would reduce the amount of background traffic on Cramer Road as well as the amount of HFRP project traffic.

**Summary of Existing Plus Project Impacts / Mitigations**

**Capacity.** The project itself does not result in significant traffic impacts based on the capacity standards of significance adopted by Placer County for intersections and roadways. No mitigation is required for Level of Service impacts.

**Pedestrian Safety.** While the existing peak period reservation system and gated access will reduce the likelihood of visitors parking off site and causing pedestrian travel along rural roads, there is no guarantee that visitors may not occasionally elect to park off-site on days when access is not controlled. ***Pedestrian travel between off-site parking and HFRP could create automobile / pedestrian safety conflicts that would be a potentially significant impact.*** This impact can be mitigated by monitoring conditions at park entrances once the facilities are in operation and installing "no parking" signs on streets near the HFRP entrances where needed.

**Bicycle Safety.** The project will add traffic to rural roads which do not meet current Placer County design standards, however the amount of traffic added is not large enough to appreciably increase conflicts between bicycles and automobiles, and the project's impact to bicycles is not significant.

**Automobile Safety.** The HFRP will add vehicular traffic to one road (Cramer Road) which already experiences collisions at an annual rate that exceeds the statewide average. ***This is a potentially significant safety impact.*** Because the nature of the three collisions that have occurred on Cramer Road over the last three years does not point to the need for specific localized improvement, applicable mitigation is review of the traffic control devices in the area with upgrade to meet current MUTCD standards for message, location and sign condition if necessary.

**Design of Twilight Road Site Access to Bell Road**. The volume of traffic turning at the new access at buildout satisfies current AASHTO guidelines for determining the benefit of separate left turn lanes. ***Thus, operating the project without applicable access improvements is potentially significant safety impact.*** Applicable mitigation includes frontage improvements per standard Plate 116 and installing a separate northbound left turn lane on Bell Road at the access with Phase 2.

## CUMULATIVE TRAFFIC IMPACTS

### Background

The cumulative impact analysis considers the relative impact of the proposed project within the context of long term traffic conditions in the study area. In addition to the proposed project, the analysis of long term cumulative impacts considers the combined effect of regional traffic growth on study area roads, trips associated with other reasonably foreseeable development proposals.

**Background Traffic Volume Growth.** Local agencies have various resources available for estimating background growth regional transportation facilities. In the case of this study area, the area is generally addressed by the original Placer County regional travel demand forecasting model, as well as subsequent models derived from the Placer County model and created for the North Auburn area, for the City of Lincoln and for the Town of Loomis. These models account for the regional effects of development throughout the SACOG multi-county region. Each model includes known development projects in the County such as Bickford Ranch and reflects development that is consistent with adopted General Plans. For example, the model maintained by the City of Lincoln reflects development of that community's new Villages, while the Loomis model reflects development on the Village at Loomis site.

Because the HFRP area is rural with relatively limited development prospects, Placer County staff reviewed model results and the configuration of each model with regards to the level of detail provided and the reliability of forecasts to determine the best approach for this analysis. Placer County staff also reviewed available traffic studies and Caltrans planning documents and compared traffic model results to historic traffic volume counts on study area roads. Based on this comprehensive review, Placer County staff determined that the best approach yielding conservative results while incorporating the effects of growth in all jurisdictions would assume a uniform annual growth rate of 2.0% on each roadway segment. The resulting 20-year growth factor (i.e., 1.49) has been applied to the traffic volume on each roadway and at study intersections.

**Reasonably Foreseeable Projects.** Placer County Planning staff considered the extent of other development projects that might add traffic to the study area that would not reasonably be addressed by a background growth rate. For this analysis it was assumed that projects within the immediate study area could be considered but projects located at more distant locations would be assumed to be part of the background growth rate.

The **HFRP Garden Bar Road site** has been previously evaluated under CEQA and approved with conditions. This analysis assumes this portion of the HFRP expansion occurs as part of the Cumulative baseline condition.

Two other projects were identified.

**Placer County Winery and Rural Breweries Ordinance.** Placer County is currently preparing an Environmental Impact Report evaluating the impacts of amending the Winery & Rural Breweries Ordinance. In general, the proposed amendment is intended to provide additional flexibility with respect to holding events at existing and future wineries and farm breweries. From a standpoint of traffic and transportation, the amendments do not change the day-to-day operation of wineries and farm breweries nor does the amendment change the process undertaken by the County to process new winery and farm brewery applications. The amendment will change the number of agricultural promotion events permitted at wineries and farm breweries and will increase the number of special events that are allowed at existing and future facilities located on large parcel sizes.

The approach to estimating the traffic contribution accompanying the amendment identifies the immediate impacts of implementing the ordinance at existing facilities as well as the long-term cumulative effect of operating new, existing and pending wineries and farm breweries with the change in events permitted under the ordinance. Very conservative assumptions for the activity associated with additional events were identified based on data collected at existing wineries and farm breweries and permitted attendance. Additional events were assumed to occur at each existing winery and farm brewery because of the proposed amendments to the ordinance, and the resulting vehicle trips were assigned to the study area circulation system. The cumulative impacts of developing new wineries and farm breweries under the amended ordinance were also evaluated assuming that 30 new facilities would be developed over twenty years. Under the conservative assumptions made for the amendment EIR, a total of 3,728 daily trips and 1,044 peak hour trips were anticipated as a result on additional events at the 11 existing and 30 future wineries or rural breweries.

**Sierra College Blvd / SR 193 Retail Center.** Placer County has been in pre-development discussions regarding a possible retail center to be constructed at the intersection of Sierra College Blvd and SR 193. This 10-acre development would require a GPA/rezone and would be subject to an EIR before consideration by the Placer County Planning Commission and Board of Supervisors. However, for this analysis this project has been assumed to be completed to provide a very conservative assessment of cumulative impacts.

For this analysis, traffic associated with development in the City of Lincoln, projects south of SR 193, such as Bickford Ranch, the Village at Loomis and Loomis Costco, and development in North Auburn is reflected in the background growth rate.

**Roadway Improvements.** The nature of improvements to study area roads and intersections that is reasonably certain has been determined based on consideration of projects included in adopted funding mechanisms. Placer County administers the Countywide Traffic Mitigation Fee Program which requires new development to contribute to the cost of circulation system improvements of county wide benefit. Individual benefit districts have been established. Table 16 notes improvements that affect study area roads. These improvements are assumed to be in place under cumulative conditions. In addition, the improvements to Garden Bar Road that were

required to support full use of the site have been assumed to be constructed under the cumulative base condition.

| TABLE 16<br>PLACER COUNTY CIP BENEFIT DISTRICT PROJECTS | | |
|---|---|---|
| **Street / Intersection** | **Segment** | **Description of Improvements** |
| ***Auburn Bowman Benefit District*** | | |
| Mt. Vernon Road | City of Auburn to Joeger Road | Improve Existing 2-lanes |
| Ophir Road | At Wise Road | Reconstruct pavement |
| SR 49 | Dry Creek Road to Bell Road | Widen to 6-lanes |
| ***Newcastle / Horseshoe Bar / Penryn Benefit District*** | | |
| Bald Hill Road | Mt. Vernon Rd to Lozanos Road | Widen / Reconstruct |
| Crater Hill Road | At Chili Hill Road | Realign intersection |
| Chili Hill Road | West of Lozanos Road | Realign Horizontal Curve |
| Lozanos Road | At Auburn Ravine | Replace Bridge |
| | Ophir Road to Wise Road | Shoulder widening |
| Sierra College Blvd | King Road to English Colony Way | Widen to 4-lanes |
| | At Delmar Avenue | Signalize |
| Wise Road | Ophir Road to Crater Hill Road | Shoulder widening |
| SR 193 | Taylor Road to Gold Hill Road | Shoulder widening |
| ***Placer Central Benefit District*** | | |
| Mt. Vernon Road | At Ayers Holmes Road | Improve sight distance |
| | At Mount Pleasant Road | Reconstruct intersection |
| Sierra College Blvd | English Colony Way to SR 193 | Widen to 4-lanes |
| SR 193 | Gold Hill Road to Sierra College Blvd | Shoulder widening |
| | Sierra College Blvd to City of Lincoln | Widen to 4-lanes |

## Traffic Volume Forecasts

Cumulative traffic volumes have been created by applying the uniform annual traffic growth rate of 2% for 20 years (i.e., overall factor of 1.49) and by superimposing the trips associated with reasonably foreseeable projects (i.e., Cumulative No Project conditions) as well as the proposed HFRP project.

## Cumulative Traffic Conditions – No Project

**Daily Traffic Volume Forecasts and Levels of Service.** Tables 17 and 18 present daily traffic volume forecasts that compare conditions with and without the HFRP project. As indicated, if the HFRP project does not proceed and no new facilities are created, all study area roadways will carry traffic volumes that result in Levels of Service that remain within of Placer County's minimum LOS C or LOS D (i.e., ½ mile of state highway) standards.

**Peak Hour Traffic Volume Forecasts.** Figure 11 presents cumulative peak hour traffic volumes without the trips associated with implementing the HFRP Expansion project. These forecasts reflect the identified background growth rate as well as trips from reasonably foreseeable projects.

**Cumulative No Project Intersection Level of Service.** Table 19 identifies the long-term cumulative Level of Service projected at study intersections under the No Project condition. While most locations will satisfy the adopted minimum LOS standard, one intersection will operate with conditions that exceed the minimum LOS standard based on overall LOS.

The **SR 49 / Lone Star Road** intersection will operate at LOS F in both the weekday p.m. peak hour and the Saturday peak hour. If background traffic on Lone Star Road increases at the assumed rate, the westbound volume would satisfy peak hour warrants in the weekday p.m. peak hour and Saturday peak hour.

**TABLE 17**
**CUMULATIVE SATURDAY DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE**

| Road | From | To | Class | Saturday | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Cumulative | | Cumulative Plus HFRP | | |
| | | | | | | Daily Volume | | |
| | | | | Daily Volume | LOS | HFRP Only | Total | LOS |
| | | ***Public Roads*** | | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local - R | 915 | A | 120 | 1,035 | A |
| Mt. Vernon Road | Ayers Holmes Road | Buffalo Road | RC - R | 2,160 | B | 216 | 2.376 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC - R | 4,190 | C | 168 | 4,358 | C |
| Garden Bar Road | Wise Road | Mt. Pleasant Rd | Local - R | 1,284 | A | 0 | 1,284 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local - R | 802 | A | 0 | 802 | A |
| Bell Road | Lone Star Road | Cramer Road | EC - R | 986 | A | 34 | 1,020 | A |
| Bell Road | Crammer Road | Joeger Road | RC - R | 2,254 | B | 402 | 2,656 | B |
| Lone Star Road | Bell Road | SR 49 | Local - R | 1,944 | B | 630 | 2,574 | B |
| Cramer Road | Bell Road | SR 49 | Local - R | 1,158 | B | 407 | 1,565 | B |
| | | ***Private Roads*** | | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 1,290 | A | 664 | 1,954 | B |
| Auburn Valley Road | Fairway Court | Curtola Ranch Rd | Local - R | 585 | A | 664 | 1,249 | A |

**BOLD** values exceed minimum LOS C or LOS D standard.
**HIGHLIGHTED** values are a significant impact

**TABLE 18**
**CUMULATIVE WEEKDAY DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE**

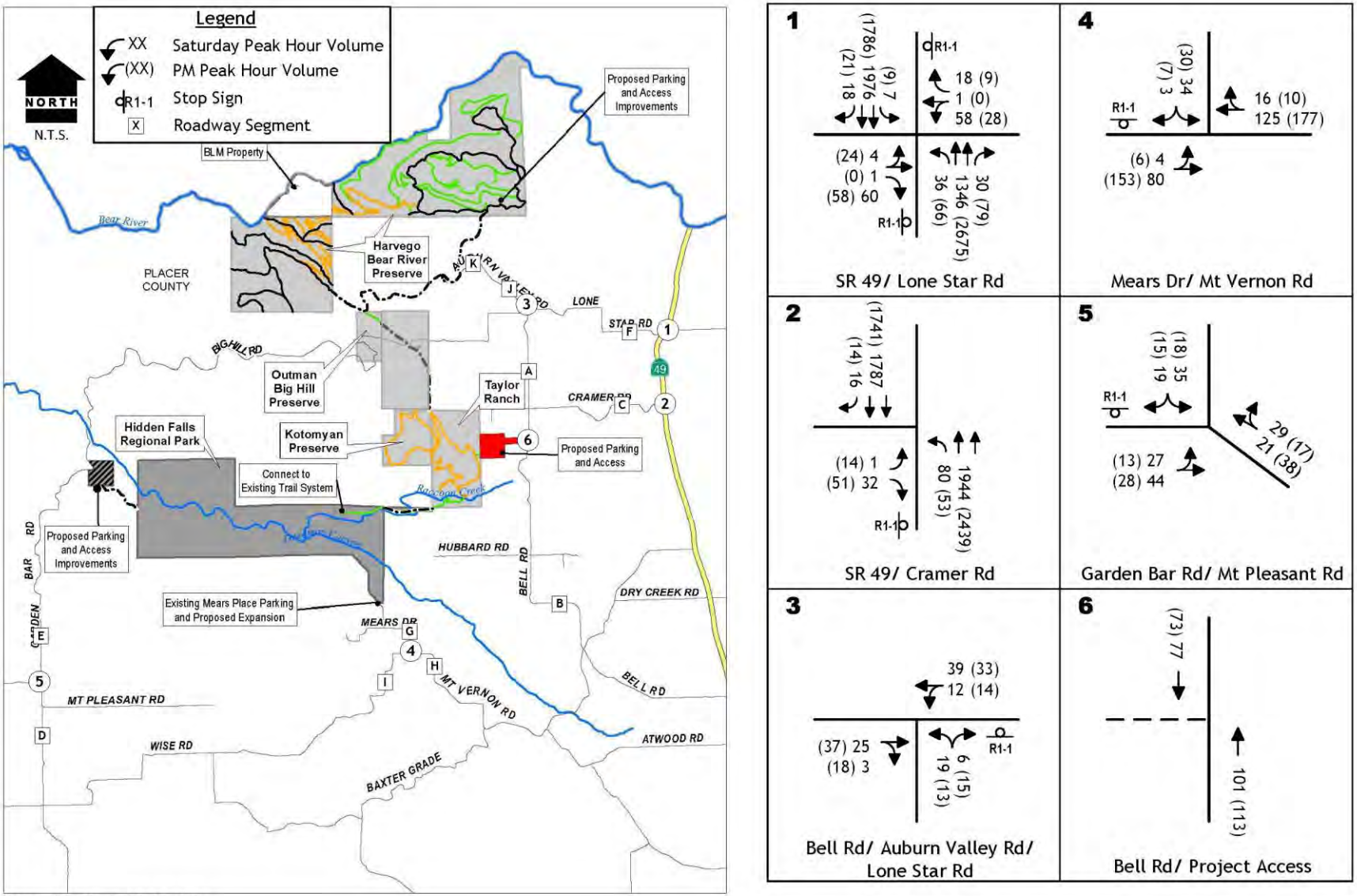
| Road | From | To | Class | Weekday | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Cumulative | | Cumulative Plus HFRP | | |
| | | | | | | Daily Volume | | |
| | | | | Daily Volume | Level of Service | HFRP Project Only | Total | Level of Service |
| ***Public Roads*** | | | | | | | | |
| Mears Drive | Mt. Vernon Road | Park Entrance | Local – R | 979 | A | 56 | 1,035 | A |
| Mt. Vernon Road | Ayers Holmes Rd | Buffalo Road | RC – R | 2,734 | B | 96 | 2.830 | B |
| Mt. Vernon Road | Mears Drive | Meyers Lane | RC – R | 4,278 | B | 80 | 4,358 | C |
| Garden Bar Road | Wise Road | Mt. Pleasant Rd | Local - R | 1,237 | A | 0 | 1,237 | A |
| Garden Bar Road | Mt. Pleasant Road | Big Hill Road | Local – R | 628 | A | 0 | 628 | A |
| Bell Road | Lone Star Road | Cramer Road | EC – R | 1,091 | A | 14 | 1,105 | A |
| Bell Road | Crammer Road | Joeger Road | RC – R | 2,272 | A | 170 | 2,442 | B |
| Lone Star Road | Bell Road | SR 49 | Local – R | 2,294 | B | 280 | 2,574 | B |
| Cramer Road | Bell Road | SR 49 | Local R | 1,388 | A | 217 | 1,638 | B |
| ***Private Roads*** | | | | | | | | |
| Auburn Valley Road | Bell Road | View Ridge Drive | Local - R | 1,393 | | 294 | 1,687 | B |
| Auburn Valley Road | Fairway Court | Curtola Ranch Rd | Local - R | 440 | A | 294 | 734 | A |

**BOLD** values exceed minimum LOS C or LOS D standard.
**HIGHLIGHTED** values are a significant impact

**TABLE 19**
**CUMULATIVE PLUS PROJECT INTERSECTION LEVELS OF SERVICE**

| # | Location | Control | Weekday PM Peak Hour | | | | Saturday Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Cum Base | | Cum Plus Project | | Cumulative | | Cum Plus Project | |
| | | | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS | Average Delay (sec/veh) | LOS |
| 1 | SR 49 / Lone Star Road | EB/WB Stop | | | | | | | | |
| | (overall) | | **(192.0)** | **(F)** | **(197.2)** | **(F)** | **(174.8)** | **(F)** | **(229.3)** | **(F)** |
| | Eastbound approach | | >300 | F | >300 | F | >300 | F | >300 | F |
| | Westbound approach | | >300 | F | >300 | F | >300 | F | >300 | F |
| | Northbound left turn | | 18.9 | C | 19.3 | C | 22.1 | C | 24.2 | C |
| | Southbound left turn | | 33.6 | D | 33.8 | D | 13.1 | B | 13.2 | B |
| 2 | SR 49 / Cramer Road | EB Stop | | | | | | | | |
| | (overall) | | (30.9) | (D) | **(36.6)** | **(E)** | (21.5) | (C) | (30.3) | (C) |
| | Eastbound approach | | 42.0 | E | 50.0 | E | 23.0 | C | 37.3 | E |
| | Northbound left turn | | 17.3 | C | 17.7 | C | 20.9 | C | 22.9 | C |
| 3 | Bell Rd / Auburn Valley Rd / Lone Star Rd | EB Stop | | | | | | | | |
| | (overall) | | (8.7) | (A) | (8.8) | (A) | (8.5) | (A) | (9.2) | (A) |
| | Eastbound approach | | 9.0 | A | 9.1 | A | 9.2 | A | 9.7 | A |
| | Northbound left turn | | 7.3 | A | 7.3 | A | 7.4 | A | 7.5 | A |
| 4 | Mt. Vernon Road / Mears Drive | SB Stop | | | | | | | | |
| | (overall) | | (10.7) | (B) | (10.7) | (B) | (10.0) | (B) | (10.1) | (B) |
| | Southbound approach | | 11.2 | B | 11.2 | B | 10.3 | B | 10.5 | B |
| | Eastbound left turn | | 7.7 | A | 7.7 | A | 7.6 | A | 7.6 | A |
| 5 | Mt. Pleasant Road / Garden Bar Rd | SB Stop | | | | | | | | |
| | (overall) | | (8.5) | (A) | (8.5) | (A) | (8.9) | (A) | (8.9) | (A) |
| | Southbound approach | | 9.0 | A | 9.0 | A | 9.7 | A | 9.7 | A |
| | Eastbound left turn | | 7.4 | A | 7.4 | A | 7.4 | A | 7.4 | A |
| 6 | Bell Road / Twilight Access | EB Stop | | | | | | | | |
| | (overall) | | - | - | (9.1) | (A) | - | - | (9.2) | (A) |
| | Eastbound approach | | | | 8.9 | A | | | 9.6 | A |
| | Northbound left turn | | | | 7.4 | A | | | 7.4 | A |

(XX) is overall weighted average delay and LOS for those movements yielding right of way
**BOLD** values exceed minimum overall LOS C or D Standard. **HIGHLIGHTED** values are a significant impact




Source: Placer County 2017, PLT 2017

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Transportation Engineers

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# CUMULATIVE BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 11

## Cumulative Traffic Conditions – Plus Project

**Cumulative Plus Project Roadway Segment Level of Service.** Tables 17 and 18 also present the daily traffic volumes anticipated on study area roads in the future if the HFRP project is completed and other growth also occurs. As indicated all roadways will carry traffic volumes that are indicative of Levels of Service that remain within Placer County's minimum LOS C/D standard. Thus, the impacts of the HFRP Expansion are not significant in these areas.

**Cumulative Plus Project Intersection Traffic Volumes**. Figure 12 presents the Weekday and Saturday peak hour traffic volumes occurring with implementation of the ordinance and other growth.

**Cumulative Plus Project Intersection Level of Service.** Table 19 compares the long-term cumulative Level of Service projected at study intersections under the No Project and Plus Project conditions. While many locations will continue to satisfy the adopted minimum LOS standard, one intersection will operate with conditions that exceed minimum standard for overall LOS if the HFRP Expansion proceeds.

The **SR 49 / Lone Star Road intersection will** operate at LOS F in the weekday p.m. and Saturday peak hour. Because conditions exceed LOS D with and without the project, the significance of the project's impact at intersections controlled by side street stop signs is based on the incremental change in delay and is also predicated on satisfaction of peak hour traffic signal warrants. In this case, because the incremental change in overall delay (5.2 seconds in p.m. and 54.5 seconds on Saturday) exceeds the incremental allowed under Placer County methodology (i.e., 2.5 seconds) and projected traffic volumes do satisfy peak hour warrants at this time, the project's impact is ***significant*** at this intersection.

Measures to reduce this impact to a less than significant level are subject to Caltrans approval on this state highway, and as noted earlier a regional approach incorporating roundabouts at selected intersection may be pursued by Caltrans and the County. Alternatively, a traffic signal at this location would result in LOS D conditions, which would satisfy Placer County's minimum LOS standards.

Any measure that involves stopping traffic on mainline state highways is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires than an ***Intersection Control Evaluation (ICE)*** report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout.

As noted earlier no funding source has been identified for improvements to the SR 49 corridor north of Dry Creek Road. Placer County could elect to identify a strategy for the overall traffic controls in the area and update its fee program to address the local share of these costs. However, while HFRP could contribute its fair share to the cost of SR 49 corridor improvements by paying adopted fees, Placer County cannot guarantee that funding will be available. As a result, this impact is ***significant and unavoidable.***

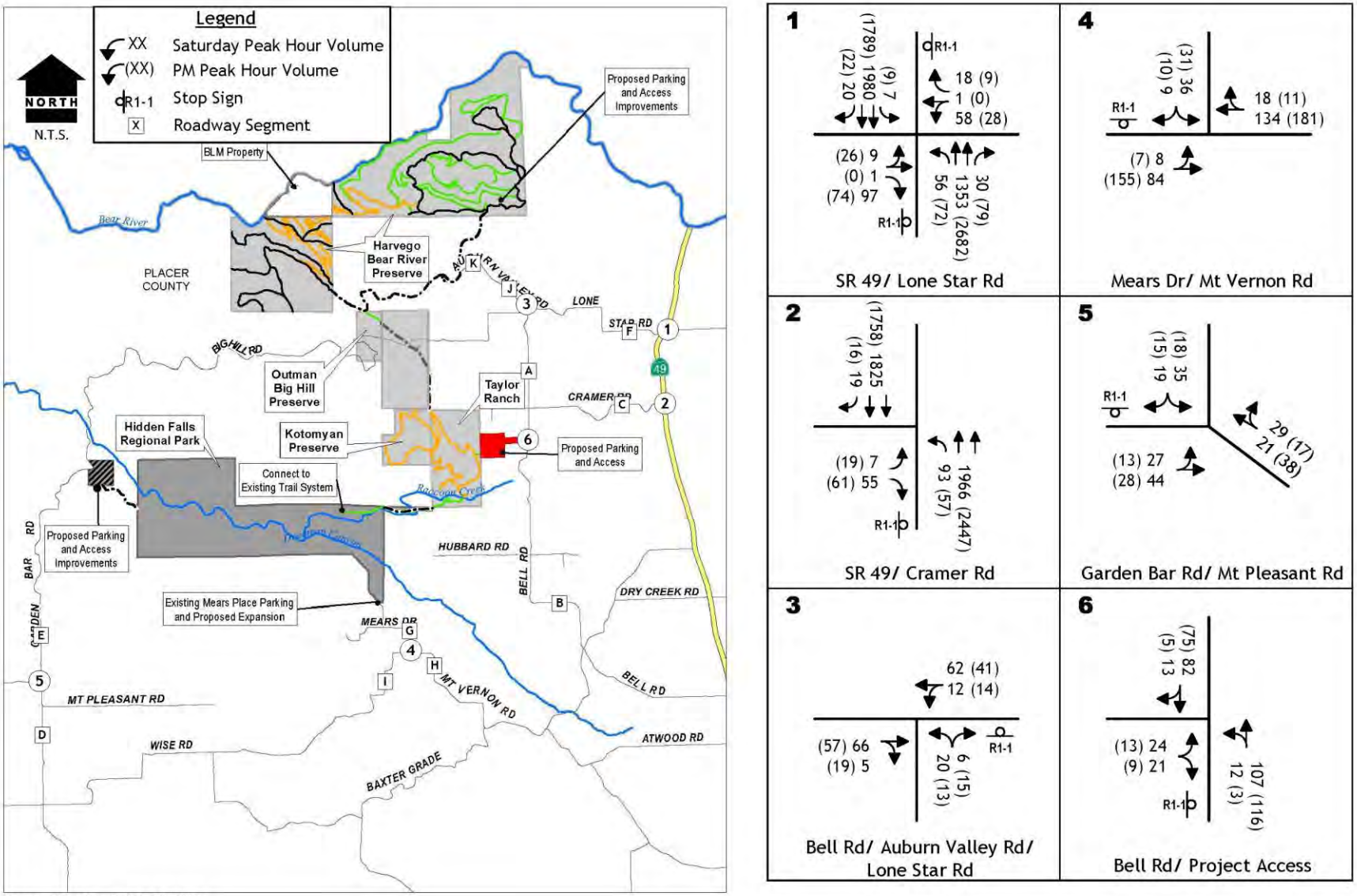
The **SR 49 / Cramer Road intersection** will operate at LOS E in the weekday peak hour. Because LOS E conditions exceed LOS D standard and peak hour traffic signal warrants are satisfied, the project's cumulative impact is ***significant*** at this intersection.

Measures to reduce this impact to a less than significant level are subject to Caltrans approval on this state highway, and as noted earlier a regional approach incorporating roundabouts at selected intersection may be pursued by Caltrans and the County. However, it may be that the SR 49 / Cramer Road intersection might better be limited to right-turns-only in concert with u-turn opportunities available at other nearby roundabouts. Alternatively, a traffic signal at this location would result in LOS D conditions, which would satisfy Placer County's minimum LOS standards.

Any measure that involves stopping traffic on mainline state highways is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires than an ***Intersection Control Evaluation (ICE)*** report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout.

As noted earlier no funding source has been identified for improvements to the SR 49 corridor north of Dry Creek Road. Placer County could elect to identify a strategy for the overall traffic controls in the area and update its fee program to address the local share of these costs. However, while HFRP could contribute its fair share to the cost of SR 49 corridor improvements by paying adopted fees, Placer County cannot guarantee that funding will be available. As a result, this impact is ***significant and unavoidable.***

**Cumulative Plus Project Traffic Signal Warrants.** The status of peak hour traffic signal warrants with implementation of the ordinance was determined. Beyond the two locations on SR 49, no additional intersections carry volumes that satisfy rural traffic signal warrants.




Source: Placer County 2017, PLT 2017

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Transportation Engineers

# CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 12

**Summary of Cumulative Plus Project Impacts / Mitigations**

The Hidden Fall Regional Park Expansion project contributes to significant cumulative off-site traffic impacts at two locations:

Under Cumulative conditions the **SR 49 / Lone Star Road intersection** will operate at LOS F in the weekday p.m. and Saturday peak hour. Because conditions exceed LOS D with and without the project, the significance of the project's impact at intersections controlled by side street stop signs is based on the incremental change in delay and is also predicated on satisfaction of peak hour traffic signal warrants. In this case, because the incremental change in overall delay exceeds the increment allowed under Placer County methodology and projected traffic volumes do satisfy peak hour warrants, the project's impact is ***significant*** at this intersection.

Measures to reduce this impact to a less than significant level are subject to Caltrans approval on this state highway, and as noted earlier a regional approach incorporating roundabouts at selected intersection may be pursued by Caltrans and the County. Alternatively, a traffic signal at this location would result in LOS D conditions, which would satisfy Placer County's minimum LOS standards.

Any measure that involves stopping traffic on mainline state highways is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires than an ***Intersection Control Evaluation (ICE)*** report be prepared to evaluate the best choice among all-way stop, traffic signal, or roundabout.

As noted earlier no funding source has been identified for improvements to the SR 49 corridor north of Dry Creek Road. Placer County could elect to identify a strategy for the overall traffic controls in the area and update its fee program to address the local share of these costs. However, while HFRP could contribute its fair share to the cost of SR 49 corridor improvements by paying adopted fees, Placer County cannot guarantee that funding will be available. As a result, this impact is ***significant and unavoidable.***

Under cumulative conditions the **SR 49 / Cramer Road intersection** will operate at LOS E in the weekday p.m. peak hour. Because conditions exceed LOS D with the project its impact and peak hour traffic signal warrants are satisfied, the project's impact is ***significant*** at this intersection.

Measures to reduce this impact to a less than significant level are subject to Caltrans approval on this state highway, and a regional approach incorporating roundabouts at selected intersection has been discussed by Caltrans and Placer County and may be pursued. A two-lane roundabout would yield LOS meeting the minimum standards. However, it may be that the SR 49 / Cramer Road intersection might better be limited to right-turns-only in concept with u-turn opportunities available at other nearby roundabouts. Alternatively, a traffic signal at this location would result in LOS D conditions, which satisfy Placer County's minimum LOS standards.

Any measure that involved stopping traffic on mainline state highways is subject to an additional level of analysis before a decision can be made as to the applicable choice of traffic control. Current Caltrans policy requires than an ***Intersection Control Evaluation (ICE)*** report be prepared to evaluate the best choice among all-way stop, traffic signal, roundabout.

No funding source has been identified for improvements to the SR 49 corridor north of Dry Creek Road. Placer County could elect to identify a strategy for the overall traffic controls in the area and update its fee program to address the local share of these costs. However, while HFRP could contribute its fair share to the cost of SR 49 corridor improvements by paying adopted fees, Placer County cannot guarantee that funding will be available. As a result, this impact is ***significant and unavoidable.***

**APPENDIX**
(under separate cover)

Traffic Counts

Level of Service Calculation Worksheets

# TECHNICAL APPENDIX

**FOR**

## HIDDEN FALLS REGIONAL PARK EXPANSION
## TRAFFIC IMPACT ANALYSIS

Placer County, California

*Prepared For:*

**AECOM**
2022 J Street
Sacramento, CA 95811

*Prepared By:*

**KD Anderson & Associates, Inc.**
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

August 1, 2019

Job No. 0090-09

KD Anderson & Associates, Inc.
Transportation Engineers

## *SR 49 & Lone Star Rd*

Date: 10/8/2016

Day: Saturday

Project #: 16-7716-001

| | |
|---|---|
| AM Peak Hour | 10:00 - 11:00 |
| NOON Peak Hour | |
| PM Peak Hour | |

### Peak Hour Summary

**Southbound Approach** (SR 49)

| | | | | | |
|---|---|---|---|---|---|
| AM | 10 | 1296 | 5 | 0 | 914 |
| NOON | 0 | 0 | 0 | 0 | 0 |
| PM | 0 | 0 | 0 | 0 | 0 |

**Eastbound Approach** (Lone Star Rd)

| | AM | NOON | PM |
|---|---|---|---|
| | 33 | 0 | 0 |
| | 0 | 0 | 0 |
| | 3 | 0 | 0 |
| | 1 | 0 | 0 |
| | 40 | 0 | 0 |

**Westbound Approach**

| | AM | NOON | PM |
|---|---|---|---|
| | 12 | 0 | 0 |
| | 1 | 0 | 0 |
| | 39 | 0 | 0 |
| | 0 | 0 | 0 |
| | 26 | 0 | 0 |

**CONTROL**

**Northbound Approach**

| | | | | | |
|---|---|---|---|---|---|
| AM | 1377 | 2 | 22 | 899 | 20 |
| NOON | 0 | 0 | 0 | 0 | 0 |
| PM | 0 | 0 | 0 | 0 | 0 |

| Count Periods | Start | End |
|---|---|---|
| AM | 9:00 AM | 11:00 AM |
| NOON | NONE | NONE |
| PM | NONE | NONE |

### Total Ins & Outs

| | North Leg | | East Leg | | | West Leg | | | South Leg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | AM | NOON | PM | | |
| AM | 1311 | 914 | 52 | 0 | 0 | 33 | 0 | 0 | 1377 | 943 |
| NOON | 0 | 0 | 26 | 0 | 0 | 44 | 0 | 0 | 0 | 0 |
| PM | 0 | 0 | AM | NOON | PM | | | | 0 | 0 |

### Total Volume Per Leg

| | North Leg | East Leg | | | West Leg | | | South Leg |
|---|---|---|---|---|---|---|---|---|
| | | | | | AM | NOON | PM | |
| AM | 2225 | 78 | 0 | 0 | 77 | 0 | 0 | 2320 |
| NOON | 0 | AM | NOON | PM | | | | 0 |
| PM | 0 | | | | | | | 0 |

# ALL TRAFFIC DATA

0090-09

City of Auburn
All Vehicles & Uturns On Unshifted
Nothing On Bank 1
Nothing On Bank 2

**(916) 771-8700**
orders@atdtraffic.com

File Name : 16-7716-001 SR 49 & Lone Star Rd
Date : 10/8/2016

**Unshifted Count = All Vehicles & Uturns**

| | SR 49 Southbound | | | | | Lone Star Rd Westbound | | | | | SR 49 Northbound | | | | | Lone Star Rd Eastbound | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total | Uturns Total |
| 9:00 | 1 | 236 | 2 | 0 | 239 | 6 | 0 | 3 | 0 | 9 | 6 | 139 | 4 | 0 | 149 | 3 | 0 | 12 | 0 | 15 | 412 | 0 |
| 9:15 | 5 | 233 | 1 | 0 | 239 | 5 | 2 | 2 | 0 | 9 | 3 | 149 | 1 | 0 | 153 | 1 | 1 | 8 | 0 | 10 | 411 | 0 |
| 9:30 | 1 | 247 | 1 | 0 | 249 | 14 | 0 | 2 | 0 | 16 | 4 | 188 | 7 | 0 | 199 | 0 | 0 | 6 | 0 | 6 | 470 | 0 |
| 9:45 | 1 | 307 | 0 | 0 | 308 | 11 | 0 | 0 | 0 | 11 | 7 | 195 | 4 | 0 | 206 | 3 | 0 | 6 | 0 | 9 | 534 | 0 |
| Total | 8 | 1023 | 4 | 0 | 1035 | 36 | 2 | 7 | 0 | 45 | 20 | 671 | 16 | 0 | 707 | 7 | 1 | 32 | 0 | 40 | 1827 | 0 |
| 10:00 | 3 | 293 | 1 | 0 | 297 | 9 | 0 | 2 | 0 | 11 | 3 | 225 | 2 | 1 | 231 | 0 | 0 | 11 | 0 | 11 | 550 | 1 |
| 10:15 | 0 | 343 | 4 | 0 | 347 | 8 | 0 | 6 | 0 | 14 | 5 | 196 | 7 | 0 | 208 | 2 | 1 | 9 | 0 | 12 | 581 | 0 |
| 10:30 | 2 | 304 | 1 | 0 | 307 | 13 | 1 | 3 | 0 | 17 | 5 | 239 | 7 | 0 | 251 | 0 | 0 | 11 | 0 | 11 | 586 | 0 |
| 10:45 | 0 | 356 | 4 | 0 | 360 | 9 | 0 | 1 | 0 | 10 | 9 | 239 | 4 | 1 | 253 | 1 | 0 | 9 | 0 | 10 | 633 | 1 |
| Total | 5 | 1296 | 10 | 0 | 1311 | 39 | 1 | 12 | 0 | 52 | 22 | 899 | 20 | 2 | 943 | 3 | 1 | 40 | 0 | 44 | 2350 | 2 |
| Grand Total | 13 | 2319 | 14 | 0 | 2346 | 75 | 3 | 19 | 0 | 97 | 42 | 1570 | 36 | 2 | 1650 | 10 | 2 | 72 | 0 | 84 | 4177 | 2 |
| Apprch % | 0.6% | 98.8% | 0.6% | 0.0% | | 77.3% | 3.1% | 19.6% | 0.0% | | 2.5% | 95.2% | 2.2% | 0.1% | | 11.9% | 2.4% | 85.7% | 0.0% | | | |
| Total % | 0.3% | 55.5% | 0.3% | 0.0% | 56.2% | 1.8% | 0.1% | 0.5% | 0.0% | 2.3% | 1.0% | 37.6% | 0.9% | 0.0% | 39.5% | 0.2% | 0.0% | 1.7% | 0.0% | 2.0% | 100.0% | |

| **AM PEAK HOUR** | SR 49 Southbound | | | | | Lone Star Rd Westbound | | | | | SR 49 Northbound | | | | | Lone Star Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| START TIME | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | LEFT | THRU | RIGHT | UTURNS | APP.TOTAL | Total |
| Peak Hour Analysis From 10:00 to 11:00 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour For Entire Intersection Begins at 10:00 | | | | | | | | | | | | | | | | | | | | | |
| 10:00 | 3 | 293 | 1 | 0 | 297 | 9 | 0 | 2 | 0 | 11 | 3 | 225 | 2 | 1 | 231 | 0 | 0 | 11 | 0 | 11 | 550 |
| 10:15 | 0 | 343 | 4 | 0 | 347 | 8 | 0 | 6 | 0 | 14 | 5 | 196 | 7 | 0 | 208 | 2 | 1 | 9 | 0 | 12 | 581 |
| 10:30 | 2 | 304 | 1 | 0 | 307 | 13 | 1 | 3 | 0 | 17 | 5 | 239 | 7 | 0 | 251 | 0 | 0 | 11 | 0 | 11 | 586 |
| 10:45 | 0 | 356 | 4 | 0 | 360 | 9 | 0 | 1 | 0 | 10 | 9 | 239 | 4 | 1 | 253 | 1 | 0 | 9 | 0 | 10 | 633 |
| Total Volume | 5 | 1296 | 10 | 0 | 1311 | 39 | 1 | 12 | 0 | 52 | 22 | 899 | 20 | 2 | 943 | 3 | 1 | 40 | 0 | 44 | 2350 |
| % App Total | 0.4% | 98.9% | 0.8% | 0.0% | | 75.0% | 1.9% | 23.1% | 0.0% | | 2.3% | 95.3% | 2.1% | 0.2% | | 6.8% | 2.3% | 90.9% | 0.0% | | |
| PHF | .417 | .910 | .625 | .000 | .910 | .750 | .250 | .500 | .000 | .765 | .611 | .940 | .714 | .500 | .932 | .375 | .250 | .909 | .000 | .917 | .928 |

0090-09

Prepared by National Data & Surveying Services

# SR 49 & Lone Star Rd

## Peak Hour Turning Movement Count

**ID:** 18-07413-001
**City:** Auburn

**Day:** Friday
**Date:** 12/07/2018

| | PEAK HOURS | COUNT PERIODS |
|---|---|---|
| AM | NONE | NONE |
| NOON | NONE | NONE |
| PM | 04:15 PM - 05:15 PM | 04:00 PM - 06:00 PM |

### SR 49 – SOUTHBOUND

| | Right | Through | Left | U-Turn | Departing |
|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | 0 |
| NOON | 0 | 0 | 0 | 0 | 0 |
| PM | 13 | 1182 | 6 | 0 | 1799 |
| (red) | 0 | 0 | 0 | 0 | |

### Lone Star Rd – EASTBOUND

| | AM | NOON | PM | |
|---|---|---|---|---|
| Departing | 0 | 0 | 57 | |
| U-Turn | 0 | 0 | 0 | 0 |
| Left | 0 | 0 | 15 | 0 |
| Through | 0 | 0 | 0 | 0 |
| Right | 0 | 0 | 39 | 0 |

### Lone Star Rd – WESTBOUND

| | | PM | NOON | AM |
|---|---|---|---|---|
| Right | 0 | 6 | 0 | 0 |
| Through | 0 | 0 | 0 | 0 |
| Left | 0 | 19 | 0 | 0 |
| U-Turn | 0 | 0 | 0 | 0 |
| Departing | | 59 | 0 | 0 |

### SR 49 – NORTHBOUND

| | Departing | U-Turn | Left | Through | Right |
|---|---|---|---|---|---|
| (red) | | 0 | 0 | 0 | 0 |
| PM | 1240 | 0 | 44 | 1778 | 53 |
| NOON | 0 | 0 | 0 | 0 | 0 |
| AM | 0 | 0 | 0 | 0 | 0 |

### CONTROL

0

| | AM | NOON | PM |
|---|---|---|---|
| TEV | 0 | 0 | 3155 |
| PHF | | | 0.98 |

### Total Vehicles (AM)

SB: N/A N/A N/A; EB: N/A N/A N/A; WB: N/A N/A N/A; NB: N/A N/A N/A

### Total Vehicles (Noon)

SB: N/A N/A N/A; EB: N/A N/A N/A; WB: N/A N/A N/A; NB: N/A N/A N/A

### Total Vehicles (PM)

SB: 13, 1182, 6; EB: 15, 0, 39; WB: 6, 0, 19; NB: 44, 177., 53

### Bikes (AM)

SB: N/A N/A N/A; EB: N/A N/A N/A; WB: N/A N/A N/A; NB: N/A N/A N/A

### Bikes (NOON)

SB: N/A N/A N/A; EB: N/A N/A N/A; WB: N/A N/A N/A; NB: N/A N/A N/A

### Bikes (PM)

SB: 0 0 0; EB: 0 0 0; WB: 0 0 0; NB: 0 0 0

### Pedestrians (Crosswalks)

| Crosswalk | AM | NOON | PM |
|---|---|---|---|
| North (PM / NOON / AM / AM / NOON / PM) | 0 | 0 | 0 |
| North (second direction) | 0 | 0 | 0 |
| West | 0 | 0 | 0 |
| West (second direction) | 0 | 0 | 0 |
| East | 0 | 0 | 0 |
| East (second direction) | 0 | 0 | 0 |
| South | 0 | 0 | 0 |
| South (second direction) | 0 | 0 | 0 |
| Diagonals (each) | 0 | 0 | 0 |

# National Data & Surveying Services Intersection Turning Movement Count

**Location:** SR 49 & Lone Star Rd
**City:** Auburn
**Control:**

**Project ID:** 18-07413-001
**Date:** 2018-12-07

**Total**

| **NS/EW Streets:** | SR 49 | | | | SR 49 | | | | Lone Star Rd | | | | Lone Star Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 4:00 PM | 12 | 392 | 14 | 0 | 3 | 309 | 2 | 0 | 4 | 0 | 12 | 0 | 10 | 0 | 5 | 0 | 763 |
| 4:15 PM | 12 | 454 | 12 | 0 | 2 | 298 | 3 | 0 | 6 | 0 | 11 | 0 | 8 | 0 | 2 | 0 | 808 |
| 4:30 PM | 14 | 444 | 14 | 0 | 1 | 290 | 3 | 0 | 3 | 0 | 14 | 0 | 3 | 0 | 2 | 0 | 788 |
| 4:45 PM | 9 | 427 | 10 | 0 | 1 | 293 | 4 | 0 | 4 | 0 | 5 | 0 | 3 | 0 | 1 | 0 | 757 |
| 5:00 PM | 9 | 453 | 17 | 0 | 2 | 301 | 3 | 0 | 2 | 0 | 9 | 0 | 5 | 0 | 1 | 0 | 802 |
| 5:15 PM | 14 | 407 | 4 | 0 | 3 | 291 | 1 | 0 | 1 | 0 | 10 | 0 | 3 | 0 | 2 | 0 | 736 |
| 5:30 PM | 8 | 249 | 4 | 0 | 4 | 292 | 4 | 0 | 0 | 0 | 6 | 0 | 7 | 0 | 4 | 0 | 578 |
| 5:45 PM | 4 | 287 | 6 | 0 | 0 | 285 | 5 | 0 | 1 | 0 | 4 | 0 | 6 | 0 | 3 | 0 | 601 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| **TOTAL VOLUMES :** | 82 | 3113 | 81 | 0 | 16 | 2359 | 25 | 0 | 21 | 0 | 71 | 0 | 45 | 0 | 20 | 0 | 5833 |
| **APPROACH %'s :** | 2.50% | 95.02% | 2.47% | 0.00% | 0.67% | 98.29% | 1.04% | 0.00% | 22.83% | 0.00% | 77.17% | 0.00% | 69.23% | 0.00% | 30.77% | 0.00% | |
| **PEAK HR :** | 04:15 PM - 05:15 PM | | | | | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 44 | 1778 | 53 | 0 | 6 | 1182 | 13 | 0 | 15 | 0 | 39 | 0 | 19 | 0 | 6 | 0 | 3155 |
| **PEAK HR FACTOR :** | 0.786 | 0.979 | 0.779 | 0.000 | 0.750 | 0.982 | 0.813 | 0.000 | 0.625 | 0.000 | 0.696 | 0.000 | 0.594 | 0.000 | 0.750 | 0.000 | 0.976 |
| | | 0.979 | | | | 0.981 | | | | 0.794 | | | | 0.625 | | | |

# National Data & Surveying Services Intersection Turning Movement Count

**Location:** SR 49 & Lone Star Rd
**City:** Auburn
**Control:** 0

**Project ID:** 18-07413-001
**Date:** 2018-12-07

**Bikes**

| **NS/EW Streets:** | SR 49 | | | | SR 49 | | | | Lone Star Rd | | | | Lone Star Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| **TOTAL VOLUMES :** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **APPROACH %'s :** | | | | | | | | | | | | | | | | | |
| **PEAK HR :** | **04:15 PM - 05:15 PM** | | | | | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PEAK HR FACTOR :** | 0.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |

# National Data & Surveying Services Intersection Turning Movement Count

**Location:** SR 49 & Lone Star Rd
**City:** Auburn

**Project ID:** 18-07413-001
**Date:** 2018-12-07

## Pedestrians (Crosswalks)

| NS/EW Streets: | SR 49 | | SR 49 | | Lone Star Rd | | Lone Star Rd | | |
|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTH LEG | | SOUTH LEG | | EAST LEG | | WEST LEG | | |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EB | WB | EB | WB | NB | SB | NB | SB | TOTAL |
| **TOTAL VOLUMES :** | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| **APPROACH %'s :** | | | 100.00% | 0.00% | | | | | |
| **PEAK HR :** | **04:15 PM - 05:15 PM** | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PEAK HR FACTOR :** | | | | | | | | | |

National Data & Surveying Services

# Intersection Turning Movement Count

**Location:** SR 49 & Cramer Rd
**City:** Auburn
**Control:**

**Project ID:** 17-07774-002
**Date:** 2017-10-07

**Total**

| **NS/EW Streets:** | SR 49 | | | | SR 49 | | | | Cramer Rd | | | | Cramer Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NOON** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 12:00 PM | 1 | 258 | 0 | 0 | 0 | 303 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 568 |
| 12:15 PM | 3 | 298 | 0 | 0 | 0 | 308 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 613 |
| 12:30 PM | 2 | 289 | 0 | 0 | 0 | 314 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 611 |
| 12:45 PM | 9 | 327 | 0 | 0 | 0 | 292 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 631 |
| 1:00 PM | 2 | 347 | 0 | 0 | 0 | 302 | 2 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 663 |
| 1:15 PM | 6 | 303 | 0 | 1 | 0 | 303 | 3 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 620 |
| 1:30 PM | 7 | 324 | 0 | 0 | 0 | 274 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 612 |
| 1:45 PM | 2 | 291 | 0 | 0 | 0 | 295 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 595 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| **TOTAL VOLUMES :** | 32 | 2437 | 0 | 1 | 0 | 2391 | 11 | 0 | 4 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 4913 |
| **APPROACH %'s :** | 1.30% | 98.66% | 0.00% | 0.04% | 0.00% | 99.54% | 0.46% | 0.00% | 9.76% | 0.00% | 90.24% | 0.00% | | | | | |
| **PEAK HR :** | **12:45 PM - 01:45 PM** | | | | | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 24 | 1301 | 0 | 1 | 0 | 1171 | 9 | 0 | 1 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 2526 |
| **PEAK HR FACTOR :** | 0.667 | 0.937 | 0.000 | 0.250 | 0.000 | 0.966 | 0.750 | 0.000 | 0.250 | 0.000 | 0.475 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.952 |
| | | 0.950 | | | | 0.964 | | | | 0.500 | | | | | | | |

Prepared by National Data & Surveying Services

# SR 49 & Cramer Rd

## Peak Hour Turning Movement Count

**ID:** 17-07774-002
**City:** Auburn

**Day:** Saturday
**Date:** 10/07/2017

| PEAK HOURS | COUNT PERIODS |
|---|---|
| NONE | NONE |
| 12:45 PM - 01:45 PM | 12:00 PM - 02:00 PM |
| NONE | NONE |

### SR 49 — SOUTHBOUND

| | | | | | | |
|---|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | 0 | AM |
| NOON | 9 | 1171 | 0 | 0 | 1302 | NOON |
| PM | 0 | 0 | 0 | 0 | 0 | PM |

### Cramer Rd — EASTBOUND

| AM | NOON | PM |
|---|---|---|
| 0 | 33 | 0 |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 0 | 0 | 0 |
| 0 | 19 | 0 |

### Cramer Rd — WESTBOUND

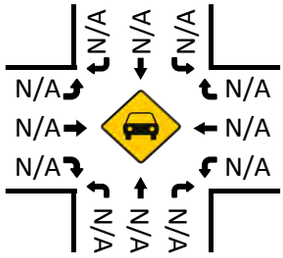
| PM | NOON | AM |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |

### SR 49 — NORTHBOUND

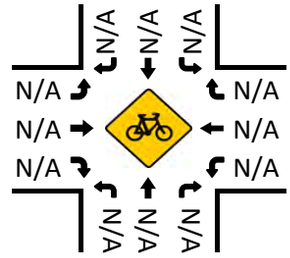
| | | | | | | |
|---|---|---|---|---|---|---|
| PM | 0 | 0 | 0 | 0 | 0 | PM |
| NOON | 1191 | 1 | 24 | 1301 | 0 | NOON |
| AM | 0 | 0 | 0 | 0 | 0 | AM |

| CONTROL | | | |
|---|---|---|---|
| | 0 | | |
| TEV | 0 AM | 2526 NOON | 0 PM |
| PHF | | 0.95 | |

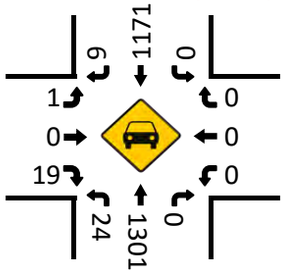
Total Vehicles (AM)



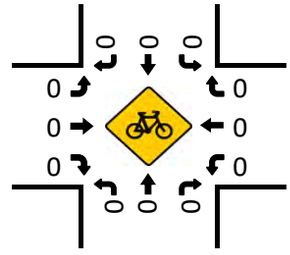

Bikes (AM)



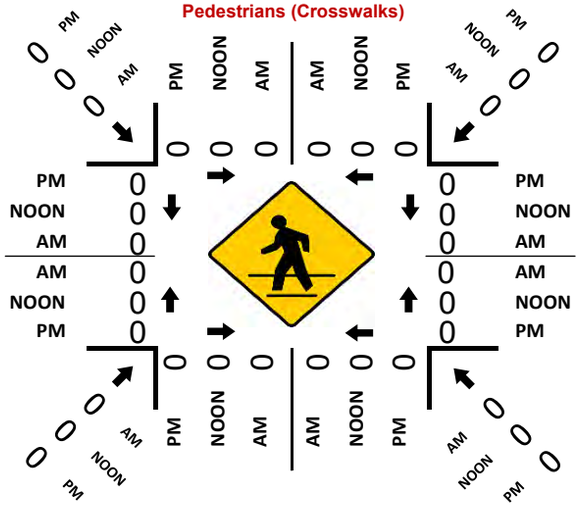

Total Vehicles (Noon)



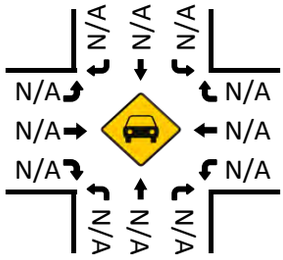

Bikes (NOON)



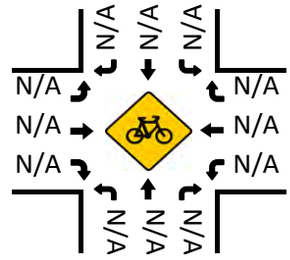

Pedestrians (Crosswalks)




Total Vehicles (PM)




Bikes (PM)



National Data & Surveying Services

# Intersection Turning Movement Count

**Location:** SR 49 & Cramer Rd
**City:** Auburn
**Control:**

**Project ID:** 17-07774-002
**Date:** 2017-10-05

**Total**

| NS/EW Streets: | SR 49 | | | | SR 49 | | | | Cramer Rd | | | | Cramer Rd | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | NORTHBOUND | | | | SOUTHBOUND | | | | EASTBOUND | | | | WESTBOUND | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| 4:00 PM | 3 | 398 | 0 | 0 | 0 | 304 | 1 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 712 |
| 4:15 PM | 7 | 392 | 0 | 0 | 0 | 292 | 3 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 702 |
| 4:30 PM | 5 | 413 | 0 | 0 | 0 | 271 | 2 | 0 | 2 | 0 | 5 | 0 | 1 | 0 | 0 | 0 | 699 |
| 4:45 PM | 5 | 418 | 0 | 0 | 0 | 286 | 2 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 717 |
| 5:00 PM | 10 | 386 | 0 | 0 | 1 | 267 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 669 |
| 5:15 PM | 7 | 418 | 0 | 0 | 0 | 274 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 707 |
| 5:30 PM | 6 | 358 | 0 | 0 | 0 | 273 | 2 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 645 |
| 5:45 PM | 8 | 340 | 0 | 0 | 0 | 241 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 590 |
| | NL | NT | NR | NU | SL | ST | SR | SU | EL | ET | ER | EU | WL | WT | WR | WU | TOTAL |
| **TOTAL VOLUMES :** | 51 | 3123 | 0 | 0 | 1 | 2208 | 14 | 0 | 9 | 0 | 34 | 0 | 1 | 0 | 0 | 0 | 5441 |
| **APPROACH %'s :** | 1.61% | 98.39% | 0.00% | 0.00% | 0.04% | 99.33% | 0.63% | 0.00% | 20.93% | 0.00% | 79.07% | 0.00% | 100.00% | 0.00% | 0.00% | 0.00% | |
| **PEAK HR :** | 04:00 PM - 05:00 PM | | | | | | | | | | | | | | | | TOTAL |
| **PEAK HR VOL :** | 20 | 1621 | 0 | 0 | 0 | 1153 | 8 | 0 | 8 | 0 | 19 | 0 | 1 | 0 | 0 | 0 | 2830 |
| **PEAK HR FACTOR :** | 0.714 | 0.969 | 0.000 | 0.000 | 0.000 | 0.948 | 0.667 | 0.000 | 0.667 | 0.000 | 0.679 | 0.000 | 0.250 | 0.000 | 0.000 | 0.000 | 0.987 |
| | 0.970 | | | | 0.952 | | | | 0.844 | | | | 0.250 | | | | |

Prepared by National Data & Surveying Services

# SR 49 & Cramer Rd

## Peak Hour Turning Movement Count

**ID:** 17-07774-002
**City:** Auburn

**Day:** Thursday
**Date:** 10/05/2017

| PEAK HOURS | |
|---|---|
| | NONE |
| | NONE |
| | 04:00 PM - 05:00 PM |

| COUNT PERIODS | |
|---|---|
| | NONE |
| | NONE |
| | 04:00 PM - 06:00 PM |

### SR 49 — SOUTHBOUND

| | | | | | | |
|---|---|---|---|---|---|---|
| AM | 0 | 0 | 0 | 0 | 0 | AM |
| NOON | 0 | 0 | 0 | 0 | 0 | NOON |
| PM | 8 | 1153 | 0 | 0 | 1629 | PM |

### Cramer Rd — EASTBOUND

| AM | NOON | PM | |
|---|---|---|---|
| 0 | 0 | 28 | |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 8 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 19 | 0 |
| AM | NOON | PM | |

### CONTROL

| | AM | NOON | PM |
|---|---|---|---|
| | 0 | | |
| TEV | 0 | 0 | 2830 |
| PHF | | | 0.99 |

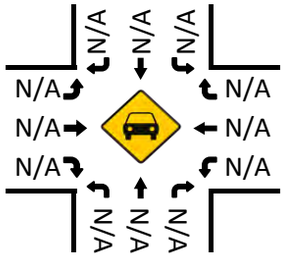
### Cramer Rd — WESTBOUND

| PM | NOON | AM | |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | |
| PM | NOON | AM | |

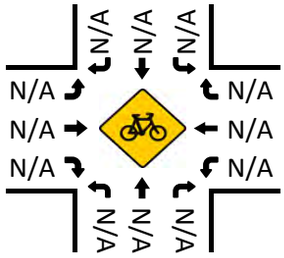
### SR 49 — NORTHBOUND

| | | | | | | |
|---|---|---|---|---|---|---|
| PM | 1173 | 0 | 20 | 1621 | 0 | PM |
| NOON | 0 | 0 | 0 | 0 | 0 | NOON |
| AM | 0 | 0 | 0 | 0 | 0 | AM |

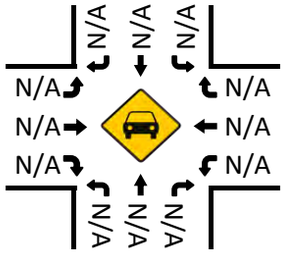
**Total Vehicles (AM)**



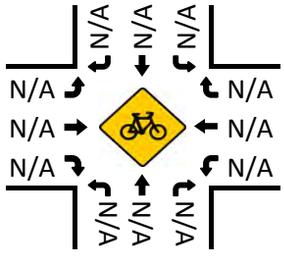

**Bikes (AM)**



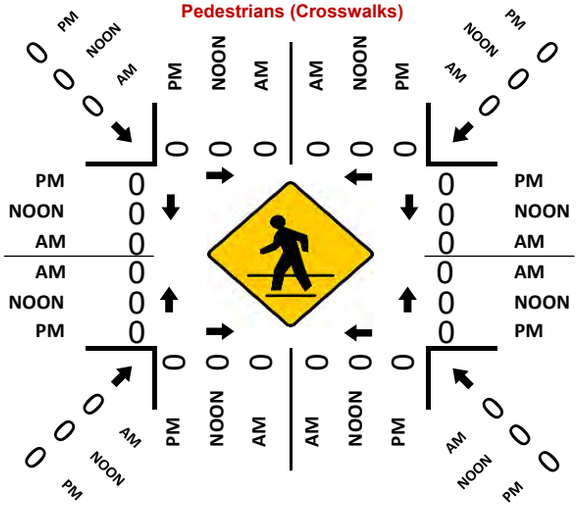

**Total Vehicles (Noon)**



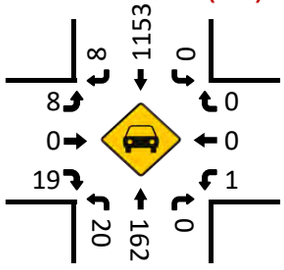

**Bikes (NOON)**



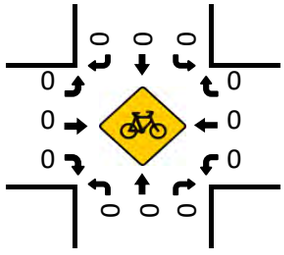

**Pedestrians (Crosswalks)**




**Total Vehicles (PM)**




**Bikes (PM)**

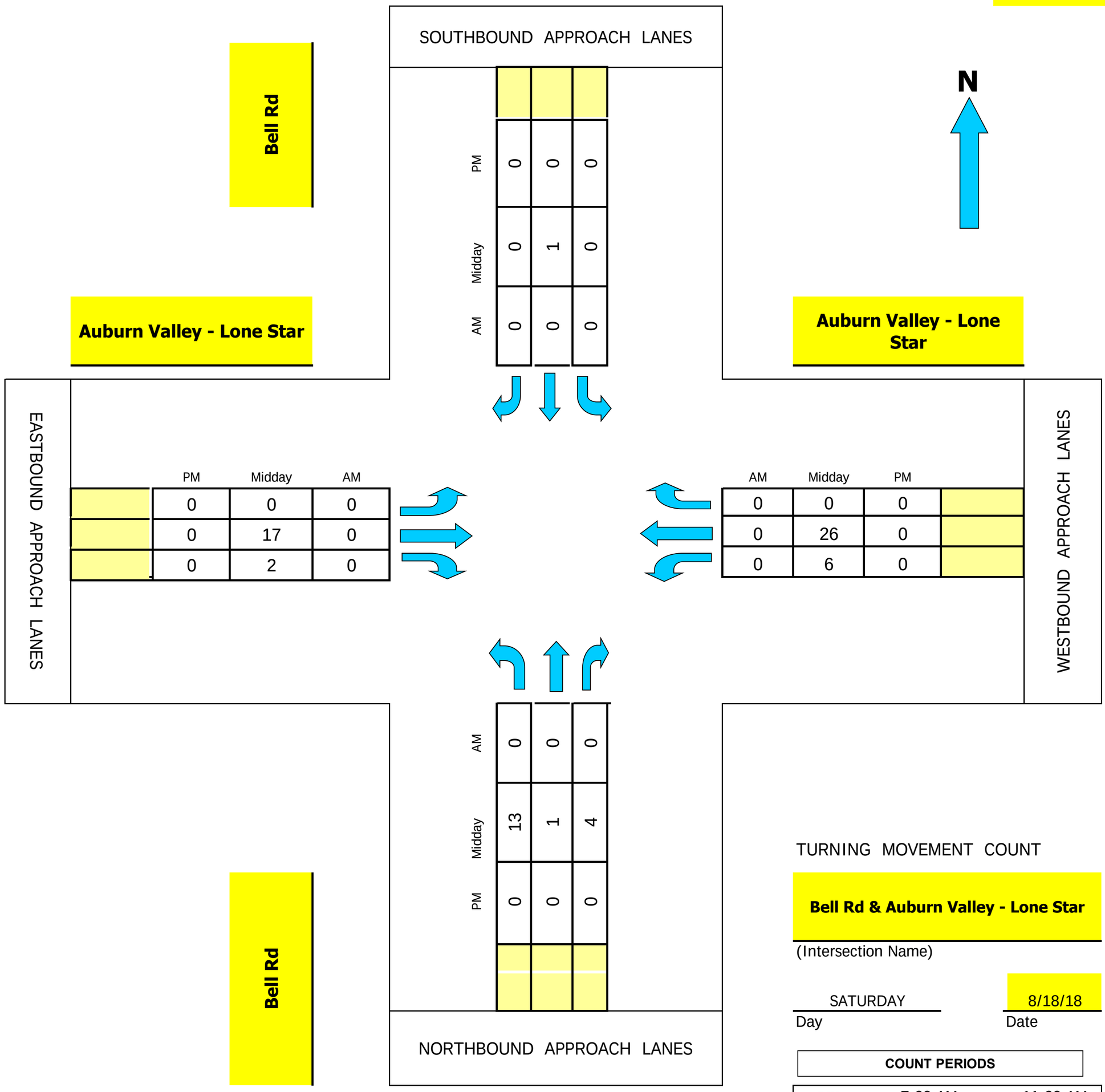


# Intersection Turning Movement

**Prepared by:**
KD Anderson Associates, Inc.

## *TMC Summary of Bell Rd/Auburn Valley - Lone Star*

Project #: 0090-09




| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 17 | 0 |
| | 0 | 2 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 26 | 0 |
| | 0 | 6 | 0 |

| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 1 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 13 | 0 |
| | 0 | 1 | 0 |
| | 0 | 4 | 0 |

TURNING MOVEMENT COUNT

**Bell Rd & Auburn Valley - Lone Star**

(Intersection Name)

SATURDAY — Day

8/18/18 — Date

**COUNT PERIODS**

| | | | |
|---|---|---|---|
| **am** | 7:00 AM | - | 11:00 AM |
| **noon** | 11:00 AM | - | 2:00 PM |
| **pm** | 4:00 PM | - | 6:00 PM |

| | |
|---|---|
| AM PEAK HOUR | 0 AM |
| NOON PEAK HOUR | 100 PM |
| PM PEAK HOUR | 0 AM |

# Intersection Turning Movement

**Prepared by:**

N-S STREET: Bell Rd DATE: 8/18/18 LOCATION: Placer County

E-W STREET: Auburn Valley - Lone Star DAY: SATURDAY PROJECT# 0090-09

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| 12:00 PM | 1 | 1 | 5 | | 0 | | | 4 | 1 | 3 | 8 | | 23 |
| 12:15 PM | 1 | 0 | 6 | | 0 | | | 2 | 1 | 1 | 0 | | 11 |
| 12:30 PM | 1 | 0 | 1 | | 0 | | | 5 | 1 | 1 | 2 | | 11 |
| 12:45 PM | 2 | 0 | 0 | | 0 | | | 3 | 3 | 1 | 5 | | 14 |
| 1:00 PM | 3 | 0 | 2 | | 1 | | | 6 | 0 | 1 | 5 | | 18 |
| 1:15 PM | 2 | 0 | 0 | | 0 | | | 5 | 1 | 3 | 2 | | 13 |
| 1:30 PM | 2 | 0 | 1 | | 0 | | | 1 | 1 | 0 | 10 | | 15 |
| 1:45 PM | 6 | 1 | 1 | | 0 | | | 5 | 0 | 2 | 9 | | 24 |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |

| TOTAL VOLUMES = | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 18 | 2 | 16 | 0 | 1 | 0 | 0 | 31 | 8 | 12 | 41 | 0 | 129 |

NOON Peak Hr Begins at: 100 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 13 | 1 | 4 | 0 | 1 | 0 | 0 | 17 | 2 | 6 | 26 | 0 | 70 |
| PEAK HR. FACTOR: | | 0.563 | | | 0.250 | | | 0.792 | | | 0.727 | | 0.729 |

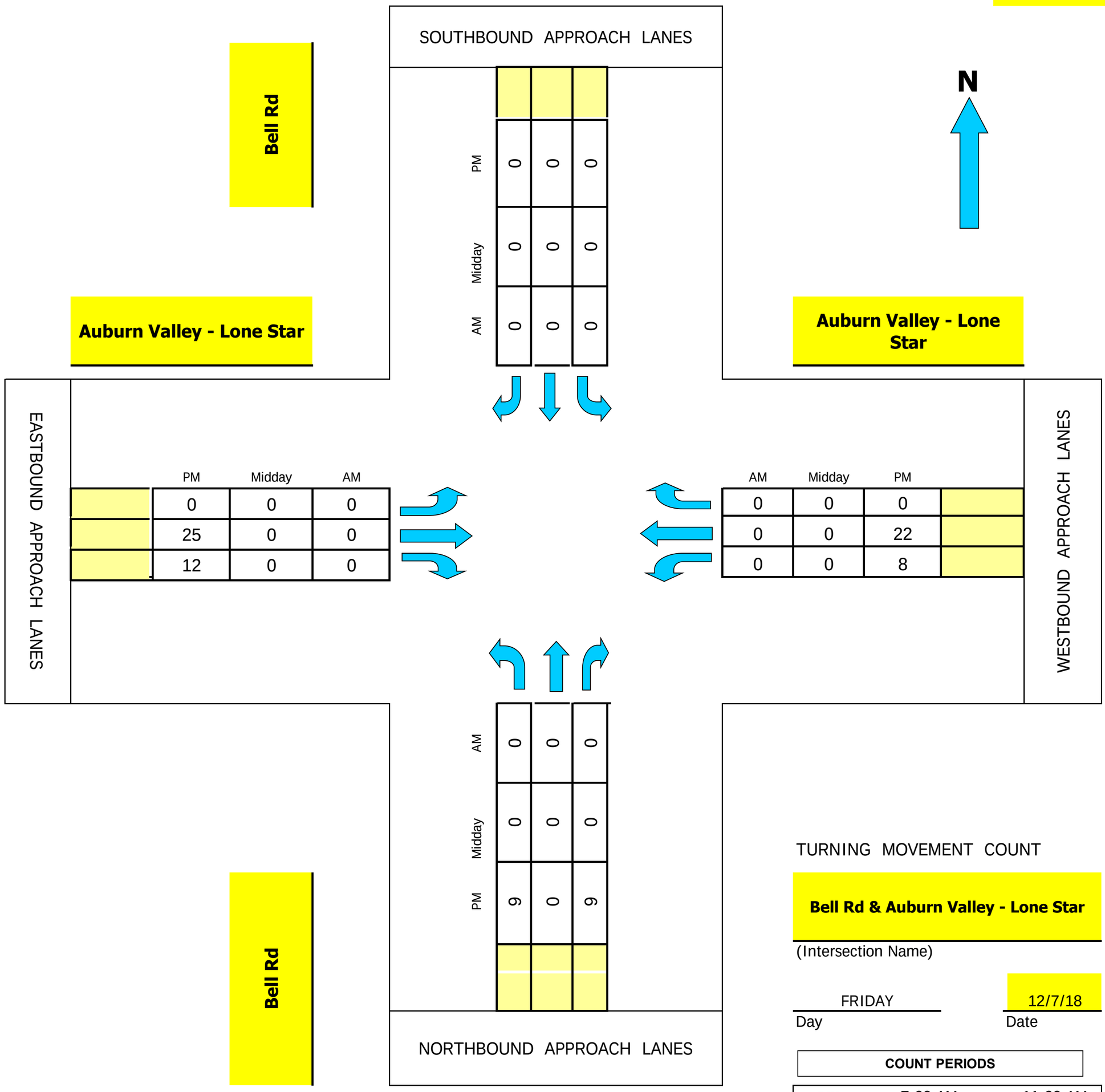
CONTROL:

# Intersection Turning Movement

**Prepared by:**
KD Anderson Associates, Inc.

## *TMC Summary of Bell Rd/Auburn Valley - Lone Star*

Project #: 0090-09




| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 25 | 0 | 0 |
| | 12 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 9 | 0 | 9 |

TURNING MOVEMENT COUNT

**Bell Rd & Auburn Valley - Lone Star**

(Intersection Name)

FRIDAY — Day

12/7/18 — Date

**COUNT PERIODS**

| | | | |
|---|---|---|---|
| **am** | 7:00 AM | - | 11:00 AM |
| **noon** | 11:00 AM | - | 2:00 PM |
| **pm** | 4:00 PM | - | 6:00 PM |

| | |
|---|---|
| AM PEAK HOUR | 0 AM |
| NOON PEAK HOUR | 0 AM |
| PM PEAK HOUR | 415 PM |

# Intersection Turning Movement

**Prepared by:**

N-S STREET: Bell Rd DATE: 12/7/18 LOCATION: Placer County

E-W STREET: Auburn Valley - Lone Star DAY: FRIDAY PROJECT# 0090-09

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | 0 | | 4 | | | | | 5 | 2 | 2 | 3 | | 16 |
| 4:15 PM | 2 | | 4 | | | | | 7 | 2 | 3 | 4 | | 22 |
| 4:30 PM | 4 | | 3 | | | | | 6 | 1 | 2 | 6 | | 22 |
| 4:45 PM | 1 | | 1 | | | | | 4 | 6 | 1 | 9 | | 22 |
| 5:00 PM | 2 | | 1 | | | | | 8 | 3 | 2 | 3 | | 19 |
| 5:15 PM | 1 | | 0 | | | | | 1 | 0 | 2 | 4 | | 8 |
| 5:30 PM | 1 | | 2 | | | | | 2 | 4 | 1 | 5 | | 15 |
| 5:45 PM | 1 | | 2 | | | | | 3 | 2 | 0 | 3 | | 11 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |

| TOTAL VOLUMES = | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12 | 0 | 17 | 0 | 0 | 0 | 0 | 36 | 20 | 13 | 37 | 0 | 135 |

PM Peak Hr Begins at: 415 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 9 | 0 | 9 | 0 | 0 | 0 | 0 | 25 | 12 | 8 | 22 | 0 | 85 |
| PEAK HR. FACTOR: | | 0.643 | | | 0.000 | | | 0.841 | | | 0.750 | | 0.966 |

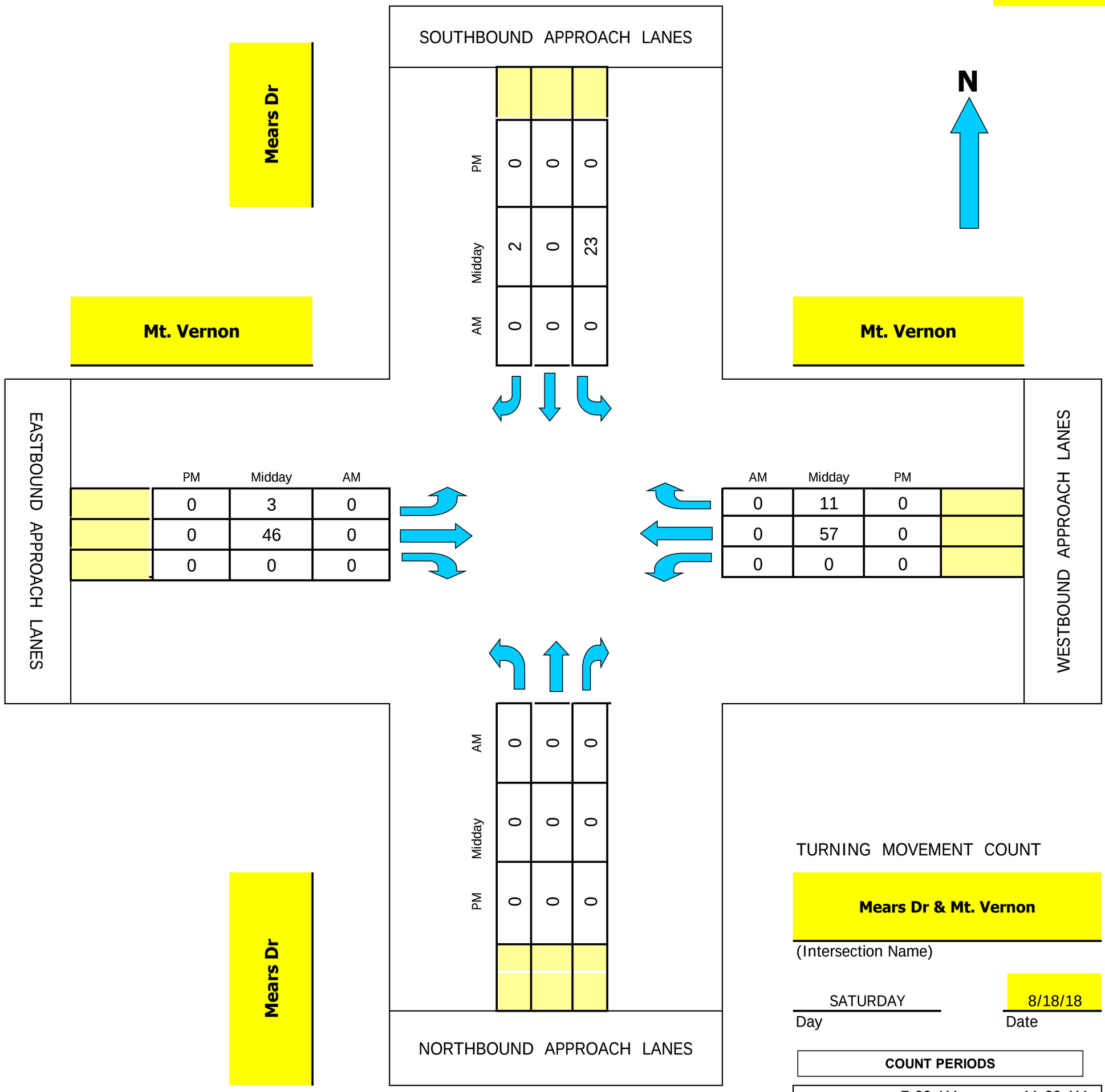
CONTROL:

# Intersection Turning Movement

**Prepared by:**
KD Anderson Associates, Inc.

## *TMC Summary of Mears Dr/Mt. Vernon*

Project #: 0090-09




| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 2 | 0 |
| | 0 | 0 | 0 |
| | 0 | 23 | 0 |

| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 3 | 0 |
| | 0 | 46 | 0 |
| | 0 | 0 | 0 |

| AM | Midday | PM | |
|---|---|---|---|
| 0 | 11 | 0 | |
| 0 | 57 | 0 | |
| 0 | 0 | 0 | |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

TURNING MOVEMENT COUNT

**Mears Dr & Mt. Vernon**

(Intersection Name)

SATURDAY — Day

8/18/18 — Date

**COUNT PERIODS**

| | | | |
|---|---|---|---|
| **am** | 7:00 AM | - | 11:00 AM |
| **noon** | 11:00 AM | - | 2:00 PM |
| **pm** | 4:00 PM | - | 6:00 PM |

| | |
|---|---|
| AM PEAK HOUR | 0 AM |
| NOON PEAK HOUR | 1230 PM |
| PM PEAK HOUR | 0 AM |

# Intersection Turning Movement

**Prepared by:**

N-S STREET: Mears Dr DATE: 8/18/18 LOCATION: Placer County

E-W STREET: Mt. Vernon DAY: SATURDAY PROJECT# 0090-09

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| 12:00 PM | | | | 6 | | 0 | 1 | 6 | | | 10 | 7 | 30 |
| 12:15 PM | | | | 1 | | 1 | 1 | 9 | | | 12 | 4 | 28 |
| 12:30 PM | | | | 9 | | 1 | 1 | 16 | | | 14 | 3 | 44 |
| 12:45 PM | | | | 4 | | 1 | 0 | 14 | | | 10 | 2 | 31 |
| 1:00 PM | | | | 2 | | 0 | 1 | 11 | | | 18 | 2 | 34 |
| 1:15 PM | | | | 8 | | 0 | 1 | 5 | | | 15 | 4 | 33 |
| 1:30 PM | | | | 4 | | 2 | 1 | 8 | | | 8 | 5 | 28 |
| 1:45 PM | | | | 6 | | 1 | 0 | 14 | | | 17 | 2 | 40 |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |

| TOTAL VOLUMES = | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 40 | 0 | 6 | 6 | 83 | 0 | 0 | 104 | 29 | 268 |

NOON Peak Hr Begins at: 1230 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 0 | 0 | 23 | 0 | 2 | 3 | 46 | 0 | 0 | 57 | 11 | 142 |
| PEAK HR. FACTOR: | | 0.000 | | | 0.625 | | | 0.000 | | | 0.850 | | 0.807 |

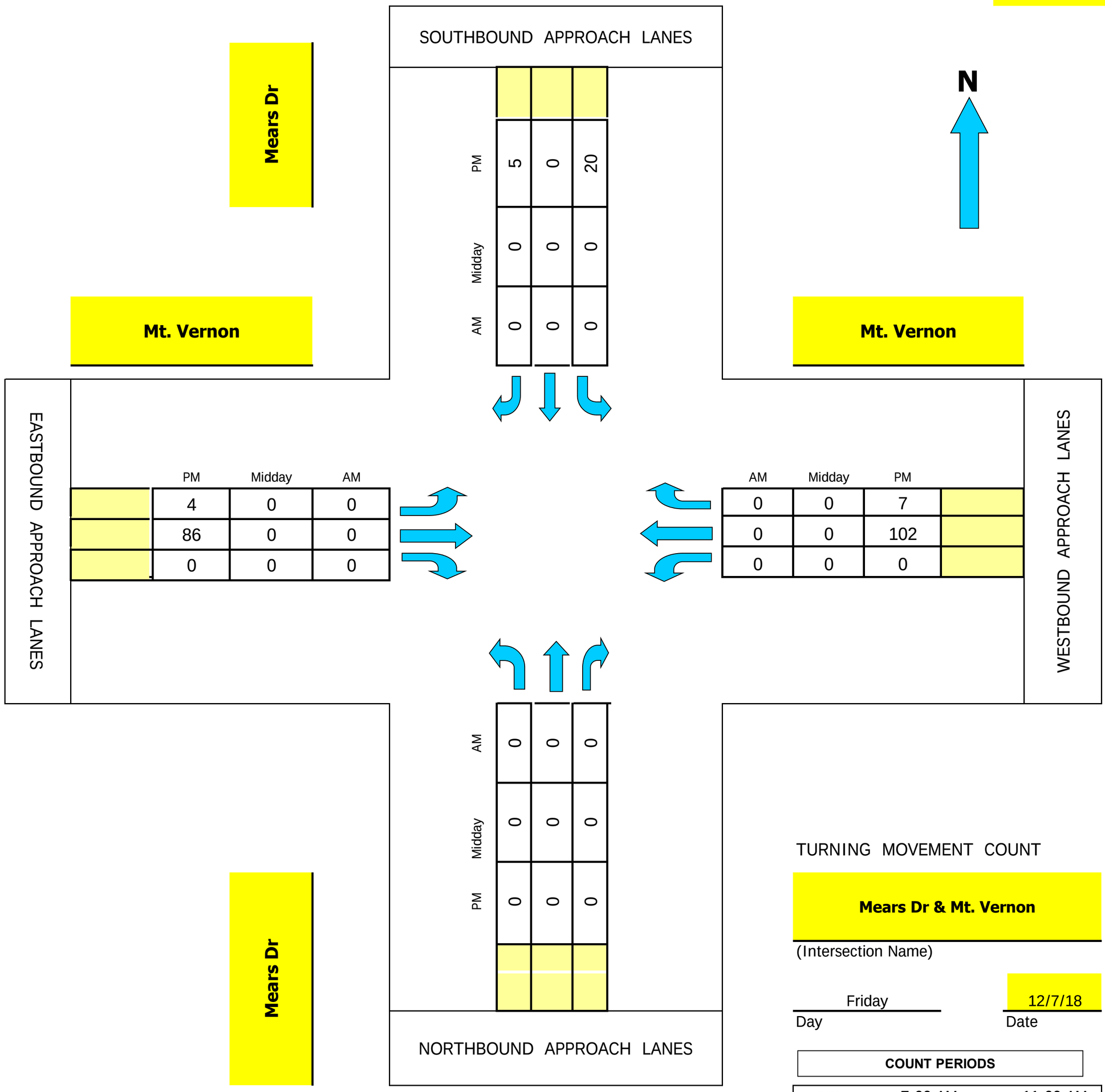
CONTROL:

# Intersection Turning Movement

**Prepared by:**
KD Anderson Associates, Inc.

## *TMC Summary of Mears Dr/Mt. Vernon*

Project #: 0090-09




| | PM | Midday | AM |
|---|---|---|---|
| | 5 | 0 | 0 |
| | 0 | 0 | 0 |
| | 20 | 0 | 0 |

| | PM | Midday | AM |
|---|---|---|---|
| | 4 | 0 | 0 |
| | 86 | 0 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 7 |
| | 0 | 0 | 102 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

TURNING MOVEMENT COUNT

**Mears Dr & Mt. Vernon**

(Intersection Name)

Friday — Day

12/7/18 — Date

| COUNT PERIODS | | | |
|---|---|---|---|
| **am** | 7:00 AM | - | 11:00 AM |
| **noon** | 11:00 AM | - | 2:00 PM |
| **pm** | 4:00 PM | - | 6:00 PM |

| | |
|---|---|
| AM PEAK HOUR | 0 AM |
| NOON PEAK HOUR | 0 AM |
| PM PEAK HOUR | 415 PM |

# Intersection Turning Movement

**Prepared by:**

N-S STREET: Mears Dr DATE: 12/7/18 LOCATION: Placer County

E-W STREET: Mt. Vernon DAY: FRIDAY PROJECT# 0090-09

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | | | | 2 | | 5 | 0 | 17 | | | 22 | 4 | 50 |
| 4:15 PM | | | | 4 | | 0 | 1 | 20 | | | 25 | 3 | 53 |
| 4:30 PM | | | | 7 | | 3 | 3 | 22 | | | 30 | 1 | 66 |
| 4:45 PM | | | | 7 | | 0 | 0 | 20 | | | 19 | 1 | 47 |
| 5:00 PM | | | | 2 | | 2 | 0 | 24 | | | 28 | 2 | 58 |
| 5:15 PM | | | | 2 | | 0 | 0 | 20 | | | 16 | 4 | 42 |
| 5:30 PM | | | | 4 | | 0 | 0 | 14 | | | 19 | 2 | 39 |
| 5:45 PM | | | | 3 | | 0 | 0 | 10 | | | 14 | 2 | 29 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |

| TOTAL VOLUMES = | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 31 | 0 | 10 | 4 | 147 | 0 | 0 | 173 | 19 | 384 |

PM Peak Hr Begins at: 415 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 0 | 0 | 20 | 0 | 5 | 4 | 86 | 0 | 0 | 102 | 7 | 224 |
| PEAK HR. FACTOR: | | 0.000 | | | 0.625 | | | 0.900 | | | 0.879 | | 0.848 |

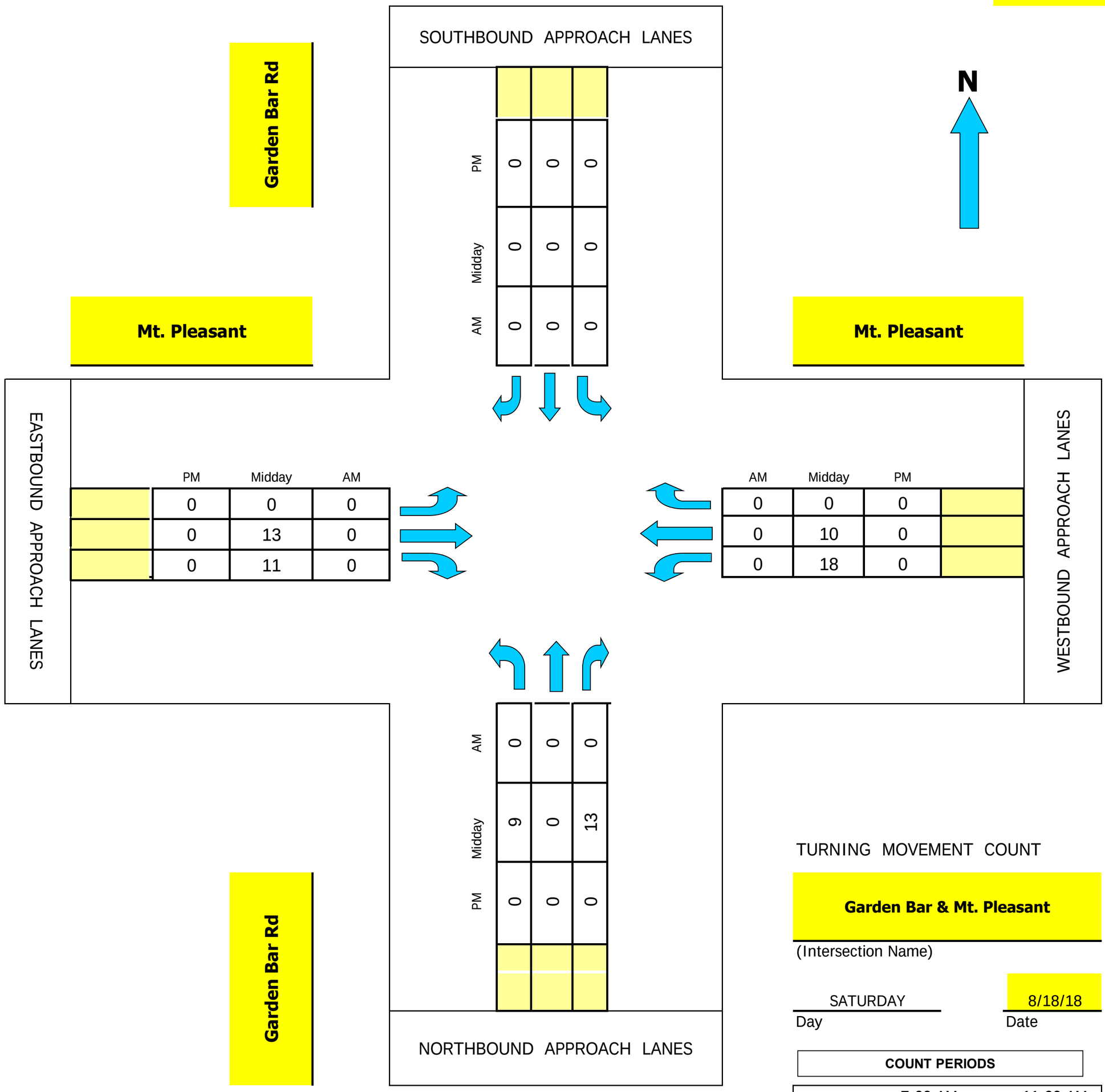
CONTROL:

# Intersection Turning Movement

**Prepared by:**
KD Anderson Associates, Inc.

## *TMC Summary of Garden Bar Rd/Mt. Pleasant*

Project #: 0090-09




| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 10 | 0 |
| | 0 | 18 | 0 |

| | PM | Midday | AM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

TURNING MOVEMENT COUNT

**Garden Bar & Mt. Pleasant**

(Intersection Name)

SATURDAY — Day

8/18/18 — Date

**COUNT PERIODS**

| | | | |
|---|---|---|---|
| **am** | 7:00 AM | - | 11:00 AM |
| **noon** | 11:00 AM | - | 2:00 PM |
| **pm** | 4:00 PM | - | 6:00 PM |

| | |
|---|---|
| AM PEAK HOUR | 0 AM |
| NOON PEAK HOUR | 1200 PM |
| PM PEAK HOUR | 0 AM |

# Intersection Turning Movement

**Prepared by:**

N-S STREET: Garden Bar Rd DATE: 8/18/18 LOCATION: Placer County

E-W STREET: Mt. Pleasant DAY: SATURDAY PROJECT# 0090-09

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 10:00 AM | | | | | | | | | | | | | |
| 10:15 AM | | | | | | | | | | | | | |
| 10:30 AM | | | | | | | | | | | | | |
| 10:45 AM | | | | | | | | | | | | | |
| 11:00 AM | | | | | | | | | | | | | |
| 11:15 AM | | | | | | | | | | | | | |
| 11:30 AM | | | | | | | | | | | | | |
| 11:45 AM | | | | | | | | | | | | | |
| 12:00 PM | 1 | | 5 | | | | | 1 | 5 | 4 | 1 | | 17 |
| 12:15 PM | 1 | | 1 | | | | | 5 | 2 | 2 | 2 | | 13 |
| 12:30 PM | 4 | | 5 | | | | | 6 | 1 | 1 | 1 | | 18 |
| 12:45 PM | 3 | | 2 | | | | | 1 | 3 | 11 | 6 | | 26 |
| 1:00 PM | 2 | | 4 | | | | | 1 | 2 | 3 | 2 | | 14 |
| 1:15 PM | 1 | | 5 | | | | | 0 | 1 | 2 | 1 | | 10 |
| 1:30 PM | 2 | | 4 | | | | | 3 | 2 | 2 | 5 | | 18 |
| 1:45 PM | 1 | | 4 | | | | | 1 | 1 | 1 | 2 | | 10 |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |

| TOTAL VOLUMES = | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 15 | 0 | 30 | 0 | 0 | 0 | 0 | 18 | 17 | 26 | 20 | 0 | 126 |

NOON Peak Hr Begins at: 1200 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 9 | 0 | 13 | 0 | 0 | 0 | 0 | 13 | 11 | 18 | 10 | 0 | 74 |
| PEAK HR. FACTOR: | | 0.611 | | | 0.000 | | | 0.857 | | | 0.000 | | 0.712 |

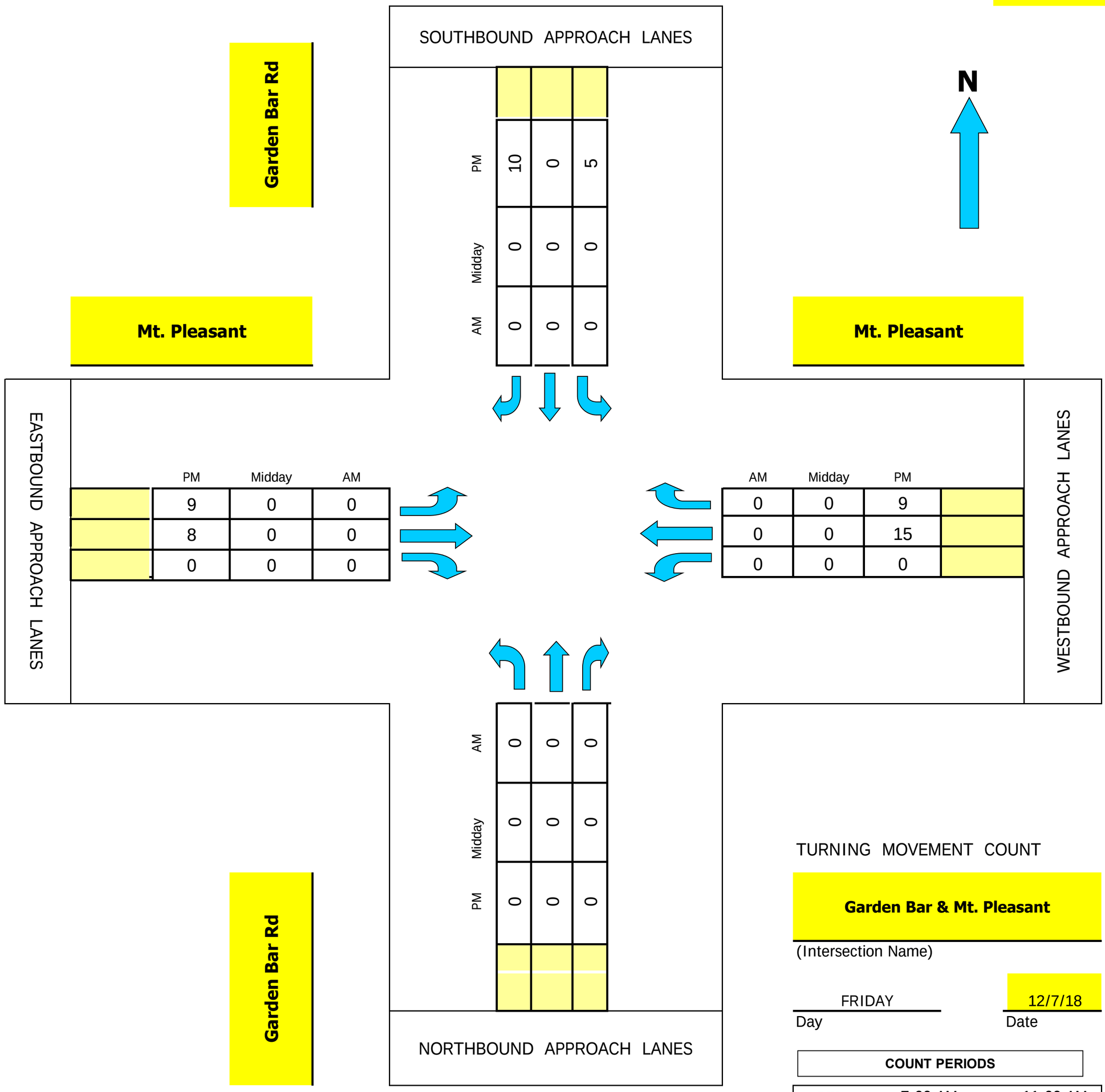
CONTROL:

# Intersection Turning Movement

**Prepared by:**
KD Anderson Associates, Inc.

## *TMC Summary of Garden Bar Rd/Mt. Pleasant*

Project #: 0090-09




| | PM | Midday | AM |
|---|---|---|---|
| | 10 | 0 | 0 |
| | 0 | 0 | 0 |
| | 5 | 0 | 0 |

| | PM | Midday | AM |
|---|---|---|---|
| | 9 | 0 | 0 |
| | 8 | 0 | 0 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 9 |
| | 0 | 0 | 15 |
| | 0 | 0 | 0 |

| | AM | Midday | PM |
|---|---|---|---|
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |
| | 0 | 0 | 0 |

TURNING MOVEMENT COUNT

**Garden Bar & Mt. Pleasant**

(Intersection Name)

FRIDAY — Day

12/7/18 — Date

**COUNT PERIODS**

| | | | |
|---|---|---|---|
| **am** | 7:00 AM | - | 11:00 AM |
| **noon** | 11:00 AM | - | 2:00 PM |
| **pm** | 4:00 PM | - | 6:00 PM |

| | |
|---|---|
| AM PEAK HOUR | 0 AM |
| NOON PEAK HOUR | 0 AM |
| PM PEAK HOUR | 430 PM |

# Intersection Turning Movement

**Prepared by:**

N-S STREET: Garden Bar Rd DATE: 12/7/18 LOCATION: Placer County

E-W STREET: Mt. Pleasant DAY: FRIDAY PROJECT# 0090-09

| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 2:00 PM | | | | | | | | | | | | | |
| 2:15 PM | | | | | | | | | | | | | |
| 2:30 PM | | | | | | | | | | | | | |
| 2:45 PM | | | | | | | | | | | | | |
| 3:00 PM | | | | | | | | | | | | | |
| 3:15 PM | | | | | | | | | | | | | |
| 3:30 PM | | | | | | | | | | | | | |
| 3:45 PM | | | | | | | | | | | | | |
| 4:00 PM | | | | 1 | | 1 | 1 | 1 | | | 6 | 1 | 11 |
| 4:15 PM | | | | 7 | | 1 | 0 | 4 | | | 2 | 1 | 15 |
| 4:30 PM | | | | 2 | | 3 | 3 | 2 | | | 4 | 1 | 15 |
| 4:45 PM | | | | 1 | | 1 | 2 | 0 | | | 4 | 4 | 12 |
| 5:00 PM | | | | 2 | | 3 | 1 | 4 | | | 3 | 1 | 14 |
| 5:15 PM | | | | 0 | | 3 | 3 | 2 | | | 4 | 3 | 15 |
| 5:30 PM | | | | 4 | | 0 | 3 | 0 | | | 3 | 0 | 10 |
| 5:45 PM | | | | 1 | | 0 | 0 | 0 | | | 3 | 0 | 4 |
| 6:00 PM | | | | | | | | | | | | | |
| 6:15 PM | | | | | | | | | | | | | |
| 6:30 PM | | | | | | | | | | | | | |
| 6:45 PM | | | | | | | | | | | | | |

| TOTAL VOLUMES = | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 18 | 0 | 12 | 13 | 13 | 0 | 0 | 29 | 11 | 96 |

PM Peak Hr Begins at: 430 PM

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PEAK VOLUMES = | 0 | 0 | 0 | 5 | 0 | 10 | 9 | 8 | 0 | 0 | 15 | 9 | 56 |
| PEAK HR. FACTOR: | | 0.000 | | | 0.750 | | | 0.850 | | | 0.750 | | 0.933 |

CONTROL:

# Average Daily Traffic Volumes
## Quality Traffic Data, LLC

| | | | |
|---|---|---|---|
| QTD PROJ/LOC #: | 2016210 - 002 | GPS COORDINATES: | 38.94923, -121.15847 |
| ON STREET: | Mears Drive | START DATE: | Saturday, May 21, 2016 |
| CROSS STREETS: | north of Mt. Vernon Road | VICINITY: | Placer |

| AM COUNTS | | | | | | | | | PM COUNTS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NB | | SB | | EB | | WB | | | NB | | SB | | EB | | WB | |
| 00:00 | 0 | | 0 | | | | | | 12:00 | 11 | | 13 | | | | | |
| 00:15 | 0 | | 0 | | | | | | 12:15 | 8 | | 7 | | | | | |
| 00:30 | 0 | | 1 | | | | | | 12:30 | 3 | | 6 | | | | | |
| 00:45 | 0 | 0 | 0 | 1 | | | | 1 | 12:45 | 4 | 26 | 5 | 31 | | | | 57 |
| 01:00 | 0 | | 0 | | | | | | 13:00 | 5 | | 8 | | | | | |
| 01:15 | 0 | | 0 | | | | | | 13:15 | 4 | | 6 | | | | | |
| 01:30 | 0 | | 0 | | | | | | 13:30 | 5 | | 8 | | | | | |
| 01:45 | 0 | 0 | 0 | 0 | | | | | 13:45 | 9 | 23 | 10 | 32 | | | | 55 |
| 02:00 | 0 | | 0 | | | | | | 14:00 | 3 | | 6 | | | | | |
| 02:15 | 1 | | 1 | | | | | | 14:15 | 5 | | 9 | | | | | |
| 02:30 | 1 | | 1 | | | | | | 14:30 | 6 | | 6 | | | | | |
| 02:45 | 0 | 2 | 0 | 2 | | | | 4 | 14:45 | 6 | 20 | 3 | 24 | | | | 44 |
| 03:00 | 0 | | 0 | | | | | | 15:00 | 2 | | 3 | | | | | |
| 03:15 | 0 | | 0 | | | | | | 15:15 | 5 | | 5 | | | | | |
| 03:30 | 0 | | 0 | | | | | | 15:30 | 2 | | 4 | | | | | |
| 03:45 | 0 | 0 | 0 | 0 | | | | | 15:45 | 5 | 14 | 2 | 14 | | | | 28 |
| 04:00 | 0 | | 0 | | | | | | 16:00 | 8 | | 7 | | | | | |
| 04:15 | 0 | | 0 | | | | | | 16:15 | 1 | | 3 | | | | | |
| 04:30 | 0 | | 0 | | | | | | 16:30 | 2 | | 4 | | | | | |
| 04:45 | 1 | 1 | 0 | 0 | | | | 1 | 16:45 | 9 | 20 | 3 | 17 | | | | 37 |
| 05:00 | 0 | | 0 | | | | | | 17:00 | 3 | | 4 | | | | | |
| 05:15 | 1 | | 0 | | | | | | 17:15 | 9 | | 3 | | | | | |
| 05:30 | 2 | | 0 | | | | | | 17:30 | 2 | | 4 | | | | | |
| 05:45 | 0 | 3 | 0 | 0 | | | | 3 | 17:45 | 1 | 15 | 1 | 12 | | | | 27 |
| 06:00 | 2 | | 0 | | | | | | 18:00 | 3 | | 8 | | | | | |
| 06:15 | 2 | | 0 | | | | | | 18:15 | 2 | | 5 | | | | | |
| 06:30 | 3 | | 1 | | | | | | 18:30 | 3 | | 2 | | | | | |
| 06:45 | 6 | 13 | 1 | 2 | | | | 15 | 18:45 | 1 | 9 | 2 | 17 | | | | 26 |
| 07:00 | 8 | | 1 | | | | | | 19:00 | 2 | | 2 | | | | | |
| 07:15 | 10 | | 1 | | | | | | 19:15 | 1 | | 1 | | | | | |
| 07:30 | 5 | | 1 | | | | | | 19:30 | 0 | | 4 | | | | | |
| 07:45 | 9 | 32 | 4 | 7 | | | | 39 | 19:45 | 0 | 3 | 2 | 9 | | | | 12 |
| 08:00 | 11 | | 1 | | | | | | 20:00 | 3 | | 3 | | | | | |
| 08:15 | 11 | | 4 | | | | | | 20:15 | 4 | | 2 | | | | | |
| 08:30 | 10 | | 6 | | | | | | 20:30 | 2 | | 2 | | | | | |
| 08:45 | 12 | 44 | 3 | 14 | | | | 58 | 20:45 | 2 | 11 | 1 | 8 | | | | 19 |
| 09:00 | 18 | | 6 | | | | | | 21:00 | 0 | | 1 | | | | | |
| 09:15 | 6 | | 4 | | | | | | 21:15 | 0 | | 1 | | | | | |
| 09:30 | 10 | | 6 | | | | | | 21:30 | 3 | | 2 | | | | | |
| 09:45 | 11 | 45 | 8 | 24 | | | | 69 | 21:45 | 0 | 3 | 0 | 4 | | | | 7 |
| 10:00 | 7 | | 11 | | | | | | 22:00 | 1 | | 0 | | | | | |
| 10:15 | 7 | | 9 | | | | | | 22:15 | 0 | | 1 | | | | | |
| 10:30 | 7 | | 5 | | | | | | 22:30 | 1 | | 1 | | | | | |
| 10:45 | 7 | 28 | 8 | 33 | | | | 61 | 22:45 | 1 | 3 | 0 | 2 | | | | 5 |
| 11:00 | 8 | | 15 | | | | | | 23:00 | 1 | | 0 | | | | | |
| 11:15 | 6 | | 11 | | | | | | 23:15 | 0 | | 0 | | | | | |
| 11:30 | 8 | | 7 | | | | | | 23:30 | 0 | | 0 | | | | | |
| 11:45 | 6 | 28 | 1 | 34 | | | | 62 | 23:45 | 0 | 1 | 1 | 1 | | | | 2 |
| TOTALS: | | 196 | | 117 | | | | 313 | TOTALS: | | 148 | | 171 | | | | 319 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SPLIT | 62.6% | 37.4% | | 49.5% | SPLIT | 46.4% | 53.6% | | 50.5% |
| PEAK HOUR | 08:15 | 10:45 | | 08:15 | PEAK HOUR | 12:00 | 13:30 | | 12:00 |
| PH VOLUME | 51 | 41 | | 70 | PH VOLUME | 26 | 33 | | 57 |
| PHF | 0.71 | 0.68 | | 0.73 | PHF | 0.57 | 0.83 | | 0.59 |

**DAY'S TOTAL**

| NB | SB | EB | WB | TOTAL |
|---|---|---|---|---|
| 344 | 288 | | | 632 |


**QUALITY TRAFFIC DATA, LLC**
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

# Average Daily Traffic Volumes
## Quality Traffic Data, LLC

| | | | |
|---|---|---|---|
| QTD PROJ/LOC #: | 2016210 - 002 | GPS COORDINATES: | 38.94923, -121.15847 |
| ON STREET: | Mears Drive | START DATE: | Saturday, May 28, 2016 |
| CROSS STREETS: | north of Mt. Vernon Road | VICINITY: | Placer |

**AM COUNTS**

| | NB | | SB | | EB | | WB | |
|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | |
| 00:15 | 0 | | 0 | | | | | |
| 00:30 | 0 | | 1 | | | | | |
| 00:45 | 0 | *0* | 0 | *1* | | | | *1* |
| 01:00 | 0 | | 0 | | | | | |
| 01:15 | 0 | | 1 | | | | | |
| 01:30 | 0 | | 0 | | | | | |
| 01:45 | 0 | *0* | 0 | *1* | | | | *1* |
| 02:00 | 1 | | 1 | | | | | |
| 02:15 | 0 | | 1 | | | | | |
| 02:30 | 1 | | 0 | | | | | |
| 02:45 | 0 | *2* | 0 | *2* | | | | *4* |
| 03:00 | 0 | | 1 | | | | | |
| 03:15 | 0 | | 1 | | | | | |
| 03:30 | 0 | | 0 | | | | | |
| 03:45 | 0 | *0* | 0 | *2* | | | | *2* |
| 04:00 | 0 | | 0 | | | | | |
| 04:15 | 0 | | 0 | | | | | |
| 04:30 | 0 | | 0 | | | | | |
| 04:45 | 2 | *2* | 0 | *0* | | | | *2* |
| 05:00 | 0 | | 4 | | | | | |
| 05:15 | 1 | | 0 | | | | | |
| 05:30 | 1 | | 1 | | | | | |
| 05:45 | 3 | *5* | 0 | *5* | | | | *10* |
| 06:00 | 0 | | 1 | | | | | |
| 06:15 | 2 | | 0 | | | | | |
| 06:30 | 2 | | 0 | | | | | |
| 06:45 | 8 | *12* | 0 | *1* | | | | *13* |
| 07:00 | 8 | | 0 | | | | | |
| 07:15 | 6 | | 1 | | | | | |
| 07:30 | 5 | | 0 | | | | | |
| 07:45 | 7 | *26* | 4 | *5* | | | | *31* |
| 08:00 | 9 | | 8 | | | | | |
| 08:15 | 12 | | 3 | | | | | |
| 08:30 | 7 | | 4 | | | | | |
| 08:45 | 9 | *37* | 3 | *18* | | | | *55* |
| 09:00 | 12 | | 6 | | | | | |
| 09:15 | 38 | | 8 | | | | | |
| 09:30 | 13 | | 18 | | | | | |
| 09:45 | 12 | *75* | 8 | *40* | | | | *115* |
| 10:00 | 13 | | 7 | | | | | |
| 10:15 | 11 | | 4 | | | | | |
| 10:30 | 9 | | 4 | | | | | |
| 10:45 | 22 | *55* | 5 | *20* | | | | *75* |
| 11:00 | 13 | | 9 | | | | | |
| 11:15 | 17 | | 12 | | | | | |
| 11:30 | 13 | | 11 | | | | | |
| 11:45 | 15 | *58* | 11 | *43* | | | | *101* |
| TOTALS: | | **272** | | **138** | | | | **410** |

**PM COUNTS**

| | NB | | SB | | EB | | WB | |
|---|---|---|---|---|---|---|---|---|
| 12:00 | 16 | | 9 | | | | | |
| 12:15 | 9 | | 10 | | | | | |
| 12:30 | 8 | | 11 | | | | | |
| 12:45 | 13 | *46* | 6 | *36* | | | | *82* |
| 13:00 | 11 | | 17 | | | | | |
| 13:15 | 6 | | 14 | | | | | |
| 13:30 | 12 | | 17 | | | | | |
| 13:45 | 9 | *38* | 20 | *68* | | | | *106* |
| 14:00 | 15 | | 6 | | | | | |
| 14:15 | 10 | | 11 | | | | | |
| 14:30 | 9 | | 10 | | | | | |
| 14:45 | 6 | *40* | 8 | *35* | | | | *75* |
| 15:00 | 6 | | 11 | | | | | |
| 15:15 | 6 | | 5 | | | | | |
| 15:30 | 8 | | 10 | | | | | |
| 15:45 | 3 | *23* | 8 | *34* | | | | *57* |
| 16:00 | 5 | | 6 | | | | | |
| 16:15 | 7 | | 4 | | | | | |
| 16:30 | 4 | | 13 | | | | | |
| 16:45 | 5 | *21* | 9 | *32* | | | | *53* |
| 17:00 | 1 | | 4 | | | | | |
| 17:15 | 6 | | 14 | | | | | |
| 17:30 | 4 | | 3 | | | | | |
| 17:45 | 2 | *13* | 10 | *31* | | | | *44* |
| 18:00 | 2 | | 4 | | | | | |
| 18:15 | 7 | | 6 | | | | | |
| 18:30 | 4 | | 4 | | | | | |
| 18:45 | 1 | *14* | 3 | *17* | | | | *31* |
| 19:00 | 1 | | 5 | | | | | |
| 19:15 | 2 | | 4 | | | | | |
| 19:30 | 2 | | 9 | | | | | |
| 19:45 | 4 | *9* | 5 | *23* | | | | *32* |
| 20:00 | 3 | | 6 | | | | | |
| 20:15 | 4 | | 4 | | | | | |
| 20:30 | 1 | | 1 | | | | | |
| 20:45 | 1 | *9* | 1 | *12* | | | | *21* |
| 21:00 | 2 | | 3 | | | | | |
| 21:15 | 1 | | 1 | | | | | |
| 21:30 | 1 | | 1 | | | | | |
| 21:45 | 2 | *6* | 0 | *5* | | | | *11* |
| 22:00 | 0 | | 0 | | | | | |
| 22:15 | 1 | | 0 | | | | | |
| 22:30 | 0 | | 1 | | | | | |
| 22:45 | 0 | *1* | 0 | *1* | | | | *2* |
| 23:00 | 0 | | 0 | | | | | |
| 23:15 | 0 | | 0 | | | | | |
| 23:30 | 1 | | 0 | | | | | |
| 23:45 | 0 | *1* | 0 | *0* | | | | *1* |
| TOTALS: | | **221** | | **294** | | | | **515** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SPLIT** | 66.3% | 33.7% | | **44.3%** | **SPLIT** | 42.9% | 57.1% | **55.7%** |
| PEAK HOUR | 09:15 | 11:00 | | **09:15** | PEAK HOUR | 12:00 | 13:00 | **13:00** |
| PH VOLUME | 76 | 43 | | **117** | PH VOLUME | 46 | 68 | **106** |
| PHF | 0.50 | 0.90 | | **0.64** | PHF | 0.64 | 0.85 | **0.91** |

**DAY'S TOTAL**

| NB | SB | EB | WB | TOTAL |
|---|---|---|---|---|
| 493 | 432 | | | **925** |


**QUALITY TRAFFIC DATA, LLC**
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

# Average Daily Traffic Volumes
## Quality Traffic Data, LLC

| | | | |
|---|---|---|---|
| QTD PROJ/LOC #: | 2016210 - 002 | GPS COORDINATES: | 38.94923, -121.15847 |
| ON STREET: | Mears Drive | START DATE: | Saturday, June 04, 2016 |
| CROSS STREETS: | north of Mt. Vernon Road | VICINITY: | Placer |

| AM COUNTS | | | | | | | | PM COUNTS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NB | | SB | | EB | | WB | | NB | | SB | | EB | | WB |
| 00:00 | 0 | | 0 | | | | | 12:00 | 24 | | 14 | | | | |
| 00:15 | 0 | | 0 | | | | | 12:15 | 24 | | 15 | | | | |
| 00:30 | 0 | | 0 | | | | | 12:30 | 11 | | 12 | | | | |
| 00:45 | 0 | *0* | 0 | *0* | | | | 12:45 | 15 | *74* | 7 | *48* | | | *122* |
| 01:00 | 0 | | 0 | | | | | 13:00 | 13 | | 12 | | | | |
| 01:15 | 0 | | 1 | | | | | 13:15 | 13 | | 7 | | | | |
| 01:30 | 0 | | 0 | | | | | 13:30 | 10 | | 9 | | | | |
| 01:45 | 0 | *0* | 0 | *1* | | | *1* | 13:45 | 16 | *52* | 9 | *37* | | | *89* |
| 02:00 | 0 | | 0 | | | | | 14:00 | 9 | | 12 | | | | |
| 02:15 | 1 | | 1 | | | | | 14:15 | 11 | | 11 | | | | |
| 02:30 | 0 | | 0 | | | | | 14:30 | 9 | | 6 | | | | |
| 02:45 | 0 | *1* | 0 | *1* | | | *2* | 14:45 | 7 | *36* | 10 | *39* | | | *75* |
| 03:00 | 0 | | 0 | | | | | 15:00 | 8 | | 6 | | | | |
| 03:15 | 0 | | 0 | | | | | 15:15 | 9 | | 13 | | | | |
| 03:30 | 0 | | 0 | | | | | 15:30 | 10 | | 5 | | | | |
| 03:45 | 0 | *0* | 0 | *0* | | | | 15:45 | 9 | *36* | 12 | *36* | | | *72* |
| 04:00 | 0 | | 0 | | | | | 16:00 | 4 | | 13 | | | | |
| 04:15 | 0 | | 0 | | | | | 16:15 | 9 | | 9 | | | | |
| 04:30 | 0 | | 0 | | | | | 16:30 | 4 | | 8 | | | | |
| 04:45 | 1 | *1* | 0 | *0* | | | *1* | 16:45 | 7 | *24* | 13 | *43* | | | *67* |
| 05:00 | 1 | | 1 | | | | | 17:00 | 5 | | 3 | | | | |
| 05:15 | 1 | | 0 | | | | | 17:15 | 7 | | 16 | | | | |
| 05:30 | 0 | | 0 | | | | | 17:30 | 6 | | 7 | | | | |
| 05:45 | 1 | *3* | 0 | *1* | | | *4* | 17:45 | 6 | *24* | 4 | *30* | | | *54* |
| 06:00 | 1 | | 0 | | | | | 18:00 | 4 | | 4 | | | | |
| 06:15 | 0 | | 1 | | | | | 18:15 | 3 | | 8 | | | | |
| 06:30 | 3 | | 2 | | | | | 18:30 | 4 | | 6 | | | | |
| 06:45 | 4 | *8* | 0 | *3* | | | *11* | 18:45 | 1 | *12* | 7 | *25* | | | *37* |
| 07:00 | 8 | | 1 | | | | | 19:00 | 3 | | 2 | | | | |
| 07:15 | 1 | | 0 | | | | | 19:15 | 5 | | 1 | | | | |
| 07:30 | 2 | | 1 | | | | | 19:30 | 2 | | 1 | | | | |
| 07:45 | 4 | *15* | 2 | *4* | | | *19* | 19:45 | 4 | *14* | 4 | *8* | | | *22* |
| 08:00 | 6 | | 5 | | | | | 20:00 | 1 | | 6 | | | | |
| 08:15 | 13 | | 2 | | | | | 20:15 | 3 | | 3 | | | | |
| 08:30 | 10 | | 2 | | | | | 20:30 | 1 | | 3 | | | | |
| 08:45 | 15 | *44* | 5 | *14* | | | *58* | 20:45 | 3 | *8* | 3 | *15* | | | *23* |
| 09:00 | 11 | | 7 | | | | | 21:00 | 0 | | 3 | | | | |
| 09:15 | 18 | | 4 | | | | | 21:15 | 1 | | 5 | | | | |
| 09:30 | 33 | | 3 | | | | | 21:30 | 1 | | 1 | | | | |
| 09:45 | 11 | *73* | 1 | *15* | | | *88* | 21:45 | 0 | *2* | 0 | *9* | | | *11* |
| 10:00 | 14 | | 8 | | | | | 22:00 | 0 | | 0 | | | | |
| 10:15 | 12 | | 6 | | | | | 22:15 | 0 | | 0 | | | | |
| 10:30 | 10 | | 10 | | | | | 22:30 | 0 | | 0 | | | | |
| 10:45 | 16 | *52* | 9 | *33* | | | *85* | 22:45 | 1 | *1* | 0 | *0* | | | *1* |
| 11:00 | 18 | | 10 | | | | | 23:00 | 0 | | 1 | | | | |
| 11:15 | 24 | | 10 | | | | | 23:15 | 2 | | 0 | | | | |
| 11:30 | 19 | | 24 | | | | | 23:30 | 2 | | 0 | | | | |
| 11:45 | 13 | *74* | 19 | *63* | | | *137* | 23:45 | 0 | *4* | 0 | *1* | | | *5* |
| TOTALS: | | **271** | | **135** | | | **406** | **TOTALS:** | | **287** | | **291** | | | **578** |

| SPLIT | 66.7% | 33.3% | **41.3%** | SPLIT | 49.7% | 50.3% | **58.7%** |
|---|---|---|---|---|---|---|---|
| PEAK HOUR | 11:15 | 11:30 | **11:30** | PEAK HOUR | 12:00 | 12:00 | **12:00** |
| PH VOLUME | 80 | 72 | **152** | PH VOLUME | 74 | 48 | **122** |
| PHF | 0.83 | 0.75 | **0.88** | PHF | 0.73 | 0.80 | **0.78** |

**DAY'S TOTAL**

| NB | SB | EB | WB | TOTAL |
|---|---|---|---|---|
| 558 | 426 | | | **984** |


**QUALITY TRAFFIC DATA, LLC**
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Prepared by NDS/ATD

# VOLUME

## Mears Dr Bet. Mt Vernon Rd & 7970 Mears Dr

**Day:** Saturday
**Date:** 10/8/2016

**City:** Auburn
**Project #:** CA16_7715_002

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 304 | 310 | 0 | 0 | 614 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | | 0 | |
| 00:15 | 0 | | 0 | | | | | | 0 | |
| 00:30 | 0 | | 0 | | | | | | 0 | |
| 00:45 | 0 | | 0 | | | | | | 0 | |
| 01:00 | 0 | | 0 | | | | | | 0 | |
| 01:15 | 0 | | 0 | | | | | | 0 | |
| 01:30 | 0 | | 0 | | | | | | 0 | |
| 01:45 | 0 | | 0 | | | | | | 0 | |
| 02:00 | 0 | | 0 | | | | | | 0 | |
| 02:15 | 0 | | 0 | | | | | | 0 | |
| 02:30 | 0 | | 0 | | | | | | 0 | |
| 02:45 | 0 | | 0 | | | | | | 0 | |
| 03:00 | 0 | | 0 | | | | | | 0 | |
| 03:15 | 0 | | 0 | | | | | | 0 | |
| 03:30 | 0 | | 0 | | | | | | 0 | |
| 03:45 | 0 | | 0 | | | | | | 0 | |
| 04:00 | 0 | | 0 | | | | | | 0 | |
| 04:15 | 0 | | 0 | | | | | | 0 | |
| 04:30 | 0 | | 0 | | | | | | 0 | |
| 04:45 | 0 | | 0 | | | | | | 0 | |
| 05:00 | 0 | | 0 | | | | | | 0 | |
| 05:15 | 0 | | 0 | | | | | | 0 | |
| 05:30 | 0 | | 0 | | | | | | 0 | |
| 05:45 | 0 | | 0 | | | | | | 0 | |
| 06:00 | 0 | | 0 | | | | | | 0 | |
| 06:15 | 3 | | 0 | | | | | | 3 | |
| 06:30 | 2 | | 0 | | | | | | 2 | |
| 06:45 | 4 | 9 | 0 | | | | | | 4 | 9 |
| 07:00 | 3 | | 1 | | | | | | 4 | |
| 07:15 | 2 | | 0 | | | | | | 2 | |
| 07:30 | 1 | | 1 | | | | | | 2 | |
| 07:45 | 4 | 10 | 0 | 2 | | | | | 4 | 12 |
| 08:00 | 4 | | 0 | | | | | | 4 | |
| 08:15 | 8 | | 2 | | | | | | 10 | |
| 08:30 | 9 | | 3 | | | | | | 12 | |
| 08:45 | 8 | 29 | 2 | 7 | | | | | 10 | 36 |
| 09:00 | 11 | | 3 | | | | | | 14 | |
| 09:15 | 9 | | 3 | | | | | | 12 | |
| 09:30 | 9 | | 3 | | | | | | 12 | |
| 09:45 | 9 | 38 | 7 | 16 | | | | | 16 | 54 |
| 10:00 | 12 | | 7 | | | | | | 19 | |
| 10:15 | 9 | | 8 | | | | | | 17 | |
| 10:30 | 4 | | 5 | | | | | | 9 | |
| 10:45 | 10 | 35 | 9 | 29 | | | | | 19 | 64 |
| 11:00 | 7 | | 8 | | | | | | 15 | |
| 11:15 | 7 | | 12 | | | | | | 19 | |
| 11:30 | 11 | | 13 | | | | | | 24 | |
| 11:45 | 9 | 34 | 12 | 45 | | | | | 21 | 79 |
| TOTALS | | 155 | | 99 | | | | | | 254 |
| SPLIT % | | 61.0% | | 39.0% | | | | | | 41.4% |

| PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | 8 | | 1 | | | | | | 9 | |
| 12:15 | 10 | | 9 | | | | | | 19 | |
| 12:30 | 6 | | 9 | | | | | | 15 | |
| 12:45 | 11 | 35 | 7 | 26 | | | | | 18 | 61 |
| 13:00 | 7 | | 9 | | | | | | 16 | |
| 13:15 | 5 | | 5 | | | | | | 10 | |
| 13:30 | 8 | | 9 | | | | | | 17 | |
| 13:45 | 6 | 26 | 13 | 36 | | | | | 19 | 62 |
| 14:00 | 4 | | 9 | | | | | | 13 | |
| 14:15 | 8 | | 9 | | | | | | 17 | |
| 14:30 | 2 | | 8 | | | | | | 10 | |
| 14:45 | 3 | 17 | 9 | 35 | | | | | 12 | 52 |
| 15:00 | 2 | | 3 | | | | | | 5 | |
| 15:15 | 5 | | 6 | | | | | | 11 | |
| 15:30 | 7 | | 7 | | | | | | 14 | |
| 15:45 | 7 | 21 | 5 | 21 | | | | | 12 | 42 |
| 16:00 | 3 | | 7 | | | | | | 10 | |
| 16:15 | 6 | | 10 | | | | | | 16 | |
| 16:30 | 5 | | 8 | | | | | | 13 | |
| 16:45 | 4 | 18 | 5 | 30 | | | | | 9 | 48 |
| 17:00 | 3 | | 9 | | | | | | 12 | |
| 17:15 | 3 | | 7 | | | | | | 10 | |
| 17:30 | 8 | | 10 | | | | | | 18 | |
| 17:45 | 4 | 18 | 6 | 32 | | | | | 10 | 50 |
| 18:00 | 1 | | 12 | | | | | | 13 | |
| 18:15 | 3 | | 4 | | | | | | 7 | |
| 18:30 | 1 | | 2 | | | | | | 3 | |
| 18:45 | 1 | 6 | 1 | 19 | | | | | 2 | 25 |
| 19:00 | 1 | | 1 | | | | | | 2 | |
| 19:15 | 0 | | 5 | | | | | | 5 | |
| 19:30 | 1 | | 1 | | | | | | 2 | |
| 19:45 | 0 | 2 | 0 | 7 | | | | | 0 | 9 |
| 20:00 | 0 | | 0 | | | | | | 0 | |
| 20:15 | 1 | | 1 | | | | | | 2 | |
| 20:30 | 0 | | 0 | | | | | | 0 | |
| 20:45 | 1 | 2 | 1 | 2 | | | | | 2 | 4 |
| 21:00 | 1 | | 1 | | | | | | 2 | |
| 21:15 | 0 | | 0 | | | | | | 0 | |
| 21:30 | 1 | | 1 | | | | | | 2 | |
| 21:45 | 2 | 4 | 0 | 2 | | | | | 2 | 6 |
| 22:00 | 0 | | 1 | | | | | | 1 | |
| 22:15 | 0 | | 0 | | | | | | 0 | |
| 22:30 | 0 | | 0 | | | | | | 0 | |
| 22:45 | 0 | | 0 | 1 | | | | | 0 | 1 |
| 23:00 | 0 | | 0 | | | | | | 0 | |
| 23:15 | 0 | | 0 | | | | | | 0 | |
| 23:30 | 0 | | 0 | | | | | | 0 | |
| 23:45 | 0 | | 0 | | | | | | 0 | |
| TOTALS | | 149 | | 211 | | | | | | 360 |
| SPLIT % | | 41.4% | | 58.6% | | | | | | 58.6% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 304 | 310 | 0 | 0 | 614 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 09:15 | 11:00 | | | 11:00 | PM Peak Hour | 12:00 | 13:30 | | | 12:15 |
| AM Pk Volume | 39 | 45 | | | 79 | PM Pk Volume | 35 | 40 | | | 68 |
| Pk Hr Factor | 0.813 | 0.865 | | | 0.823 | Pk Hr Factor | 0.795 | 0.769 | | | 0.895 |
| 7 - 9 Volume | 39 | 9 | 0 | 0 | 48 | 4 - 6 Volume | 36 | 62 | 0 | 0 | 98 |
| 7 - 9 Peak Hour | 08:00 | 08:00 | | | 08:00 | 4 - 6 Peak Hour | 16:00 | 16:15 | | | 16:15 |
| 7 - 9 Pk Volume | 29 | 7 | 0 | 0 | 36 | 4 - 6 Pk Volume | 18 | 32 | 0 | 0 | 50 |
| Pk Hr Factor | 0.806 | 0.583 | 0.000 | 0.000 | 0.750 | Pk Hr Factor | 0.750 | 0.800 | 0.000 | 0.000 | 0.781 |

Prepared by NDS/ATD

# VOLUME

## Mears Dr N/O Mt Vernon Rd

**Day:** Friday
**Date:** 12/7/2018

**City:** Auburn
**Project #:** CA18_7414_005

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 246 | 247 | 0 | 0 | 493 |

| AM Period | NB | SB | EB | WB | TOTAL | | PM Period | NB | SB | EB | WB | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | 0 | | | 0 | | 12:00 | 6 | 9 | | | 15 | |
| 00:15 | 0 | 0 | | | 0 | | 12:15 | 5 | 9 | | | 14 | |
| 00:30 | 0 | 0 | | | 0 | | 12:30 | 5 | 6 | | | 11 | |
| 00:45 | 0 | 0 | | | 0 | | 12:45 | 4 | 20 | 6 | 30 | 10 | 50 |
| 01:00 | 0 | 0 | | | 0 | | 13:00 | 4 | 7 | | | 11 | |
| 01:15 | 0 | 0 | | | 0 | | 13:15 | 6 | 3 | | | 9 | |
| 01:30 | 0 | 0 | | | 0 | | 13:30 | 4 | 6 | | | 10 | |
| 01:45 | 0 | 0 | | | 0 | | 13:45 | 7 | 21 | 7 | 23 | 14 | 44 |
| 02:00 | 0 | 0 | | | 0 | | 14:00 | 3 | 9 | | | 12 | |
| 02:15 | 0 | 0 | | | 0 | | 14:15 | 6 | 6 | | | 12 | |
| 02:30 | 0 | 0 | | | 0 | | 14:30 | 10 | 5 | | | 15 | |
| 02:45 | 0 | 0 | | | 0 | | 14:45 | 2 | 21 | 10 | 30 | 12 | 51 |
| 03:00 | 0 | 0 | | | 0 | | 15:00 | 3 | 3 | | | 6 | |
| 03:15 | 0 | 0 | | | 0 | | 15:15 | 6 | 4 | | | 10 | |
| 03:30 | 0 | 1 | | | 1 | | 15:30 | 3 | 5 | | | 8 | |
| 03:45 | 0 | 0 | 1 | | 0 | 1 | 15:45 | 5 | 17 | 3 | 15 | 8 | 32 |
| 04:00 | 0 | 0 | | | 0 | | 16:00 | 7 | 6 | | | 13 | |
| 04:15 | 0 | 0 | | | 0 | | 16:15 | 5 | 4 | | | 9 | |
| 04:30 | 0 | 0 | | | 0 | | 16:30 | 4 | 8 | | | 12 | |
| 04:45 | 0 | 0 | | | 0 | | 16:45 | 0 | 16 | 8 | 26 | 8 | 42 |
| 05:00 | 0 | 0 | | | 0 | | 17:00 | 2 | 3 | | | 5 | |
| 05:15 | 0 | 0 | | | 0 | | 17:15 | 2 | 2 | | | 4 | |
| 05:30 | 1 | 4 | | | 5 | | 17:30 | 4 | 4 | | | 8 | |
| 05:45 | 0 | 1 | 0 | 4 | 0 | 5 | 17:45 | 2 | 10 | 3 | 12 | 5 | 22 |
| 06:00 | 0 | 1 | | | 1 | | 18:00 | 2 | 1 | | | 3 | |
| 06:15 | 1 | 3 | | | 4 | | 18:15 | 2 | 3 | | | 5 | |
| 06:30 | 1 | 2 | | | 3 | | 18:30 | 2 | 0 | | | 2 | |
| 06:45 | 2 | 4 | 3 | 9 | 5 | 13 | 18:45 | 2 | 8 | 3 | 7 | 5 | 15 |
| 07:00 | 8 | 2 | | | 10 | | 19:00 | 0 | 0 | | | 0 | |
| 07:15 | 4 | 4 | | | 8 | | 19:15 | 0 | 2 | | | 2 | |
| 07:30 | 4 | 2 | | | 6 | | 19:30 | 5 | 0 | | | 5 | |
| 07:45 | 3 | 19 | 7 | 15 | 10 | 34 | 19:45 | 1 | 6 | 2 | 4 | 3 | 10 |
| 08:00 | 4 | 4 | | | 8 | | 20:00 | 0 | 2 | | | 2 | |
| 08:15 | 3 | 2 | | | 5 | | 20:15 | 1 | 2 | | | 3 | |
| 08:30 | 5 | 9 | | | 14 | | 20:30 | 2 | 1 | | | 3 | |
| 08:45 | 1 | 13 | 5 | 20 | 6 | 33 | 20:45 | 7 | 10 | 0 | 5 | 7 | 15 |
| 09:00 | 9 | 1 | | | 10 | | 21:00 | 2 | 2 | | | 4 | |
| 09:15 | 5 | 1 | | | 6 | | 21:15 | 1 | 0 | | | 1 | |
| 09:30 | 11 | 2 | | | 13 | | 21:30 | 0 | 0 | | | 0 | |
| 09:45 | 7 | 32 | 4 | 8 | 11 | 40 | 21:45 | 0 | 3 | 0 | 2 | 0 | 5 |
| 10:00 | 4 | 4 | | | 8 | | 22:00 | 3 | 0 | | | 3 | |
| 10:15 | 3 | 2 | | | 5 | | 22:15 | 0 | 0 | | | 0 | |
| 10:30 | 5 | 7 | | | 12 | | 22:30 | 0 | 0 | | | 0 | |
| 10:45 | 5 | 17 | 4 | 17 | 9 | 34 | 22:45 | 1 | 4 | 0 | | 1 | 4 |
| 11:00 | 6 | 7 | | | 13 | | 23:00 | 0 | 0 | | | 0 | |
| 11:15 | 2 | 4 | | | 6 | | 23:15 | 1 | 0 | | | 1 | |
| 11:30 | 8 | 1 | | | 9 | | 23:30 | 0 | 0 | | | 0 | |
| 11:45 | 6 | 22 | 7 | 19 | 13 | 41 | 23:45 | 1 | 2 | 0 | | 1 | 2 |
| TOTALS | | 108 | | 93 | | 201 | TOTALS | | 138 | | 154 | | 292 |
| SPLIT % | | 53.7% | | 46.3% | | 40.8% | SPLIT % | | 47.3% | | 52.7% | | 59.2% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 246 | 247 | 0 | 0 | 493 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 09:00 | 11:45 | | | 11:45 | PM Peak Hour | 13:45 | 12:00 | | | 13:45 |
| AM Pk Volume | 32 | 31 | | | 53 | PM Pk Volume | 26 | 30 | | | 53 |
| Pk Hr Factor | 0.727 | 0.861 | | | 0.883 | Pk Hr Factor | 0.650 | 0.833 | | | 0.883 |
| 7 - 9 Volume | 32 | 35 | 0 | 0 | 67 | 4 - 6 Volume | 26 | 38 | 0 | 0 | 64 |
| 7 - 9 Peak Hour | 07:00 | 07:45 | | | 07:45 | 4 - 6 Peak Hour | 16:00 | 16:00 | | | 16:00 |
| 7 - 9 Pk Volume | 19 | 22 | 0 | 0 | 37 | 4 - 6 Pk Volume | 16 | 26 | 0 | 0 | 42 |
| Pk Hr Factor | 0.594 | 0.611 | 0.000 | 0.000 | 0.661 | Pk Hr Factor | 0.571 | 0.813 | 0.000 | 0.000 | 0.808 |

Prepared by NDS/ATD

# VOLUME

## Mt Vernon Rd Bet. Ayers Holmes Rd & Buffalo Rd

**Day:** Saturday
**Date:** 10/8/2016

**City:** Auburn
**Project #:** CA16_7715_003

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 633 | 611 | 1,244 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 1 | | 1 | | 2 | | 12:00 | | | 13 | | 14 | | 27 | |
| 00:15 | | | 1 | | 0 | | 1 | | 12:15 | | | 10 | | 11 | | 21 | |
| 00:30 | | | 1 | | 0 | | 1 | | 12:30 | | | 11 | | 10 | | 21 | |
| 00:45 | | | 1 | 4 | 0 | 1 | 1 | 5 | 12:45 | | | 12 | 46 | 8 | 43 | 20 | 89 |
| 01:00 | | | 2 | | 0 | | 2 | | 13:00 | | | 11 | | 17 | | 28 | |
| 01:15 | | | 0 | | 1 | | 1 | | 13:15 | | | 10 | | 16 | | 26 | |
| 01:30 | | | 2 | | 2 | | 4 | | 13:30 | | | 12 | | 7 | | 19 | |
| 01:45 | | | 1 | 5 | 0 | 3 | 1 | 8 | 13:45 | | | 13 | 46 | 20 | 60 | 33 | 106 |
| 02:00 | | | 0 | | 1 | | 1 | | 14:00 | | | 9 | | 11 | | 20 | |
| 02:15 | | | 0 | | 0 | | 0 | | 14:15 | | | 14 | | 17 | | 31 | |
| 02:30 | | | 0 | | 0 | | 0 | | 14:30 | | | 6 | | 7 | | 13 | |
| 02:45 | | | 0 | | 0 | 1 | 0 | 1 | 14:45 | | | 11 | 40 | 12 | 47 | 23 | 87 |
| 03:00 | | | 1 | | 0 | | 1 | | 15:00 | | | 15 | | 13 | | 28 | |
| 03:15 | | | 1 | | 0 | | 1 | | 15:15 | | | 14 | | 9 | | 23 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 7 | | 8 | | 15 | |
| 03:45 | | | 2 | 4 | 0 | | 2 | 4 | 15:45 | | | 18 | 54 | 14 | 44 | 32 | 98 |
| 04:00 | | | 1 | | 1 | | 2 | | 16:00 | | | 13 | | 11 | | 24 | |
| 04:15 | | | 0 | | 0 | | 0 | | 16:15 | | | 12 | | 13 | | 25 | |
| 04:30 | | | 1 | | 1 | | 2 | | 16:30 | | | 12 | | 12 | | 24 | |
| 04:45 | | | 5 | 7 | 3 | 5 | 8 | 12 | 16:45 | | | 7 | 44 | 17 | 53 | 24 | 97 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 11 | | 9 | | 20 | |
| 05:15 | | | 1 | | 1 | | 2 | | 17:15 | | | 7 | | 15 | | 22 | |
| 05:30 | | | 4 | | 0 | | 4 | | 17:30 | | | 10 | | 6 | | 16 | |
| 05:45 | | | 4 | 10 | 2 | 3 | 6 | 13 | 17:45 | | | 5 | 33 | 6 | 36 | 11 | 69 |
| 06:00 | | | 2 | | 1 | | 3 | | 18:00 | | | 12 | | 11 | | 23 | |
| 06:15 | | | 2 | | 2 | | 4 | | 18:15 | | | 3 | | 16 | | 19 | |
| 06:30 | | | 4 | | 4 | | 8 | | 18:30 | | | 3 | | 14 | | 17 | |
| 06:45 | | | 4 | 12 | 2 | 9 | 6 | 21 | 18:45 | | | 2 | 20 | 6 | 47 | 8 | 67 |
| 07:00 | | | 2 | | 0 | | 2 | | 19:00 | | | 4 | | 8 | | 12 | |
| 07:15 | | | 3 | | 4 | | 7 | | 19:15 | | | 4 | | 5 | | 9 | |
| 07:30 | | | 3 | | 9 | | 12 | | 19:30 | | | 8 | | 7 | | 15 | |
| 07:45 | | | 11 | 19 | 5 | 18 | 16 | 37 | 19:45 | | | 5 | 21 | 6 | 26 | 11 | 47 |
| 08:00 | | | 7 | | 3 | | 10 | | 20:00 | | | 6 | | 5 | | 11 | |
| 08:15 | | | 9 | | 11 | | 20 | | 20:15 | | | 2 | | 4 | | 6 | |
| 08:30 | | | 10 | | 6 | | 16 | | 20:30 | | | 6 | | 5 | | 11 | |
| 08:45 | | | 7 | 33 | 8 | 28 | 15 | 61 | 20:45 | | | 6 | 20 | 2 | 16 | 8 | 36 |
| 09:00 | | | 7 | | 16 | | 23 | | 21:00 | | | 3 | | 5 | | 8 | |
| 09:15 | | | 18 | | 10 | | 28 | | 21:15 | | | 5 | | 1 | | 6 | |
| 09:30 | | | 13 | | 11 | | 24 | | 21:30 | | | 6 | | 4 | | 10 | |
| 09:45 | | | 10 | 48 | 10 | 47 | 20 | 95 | 21:45 | | | 3 | 17 | 2 | 12 | 5 | 29 |
| 10:00 | | | 16 | | 5 | | 21 | | 22:00 | | | 1 | | 3 | | 4 | |
| 10:15 | | | 7 | | 13 | | 20 | | 22:15 | | | 2 | | 6 | | 8 | |
| 10:30 | | | 48 | | 14 | | 62 | | 22:30 | | | 2 | | 6 | | 8 | |
| 10:45 | | | 14 | 85 | 14 | 46 | 28 | 131 | 22:45 | | | 3 | 8 | 1 | 16 | 4 | 24 |
| 11:00 | | | 10 | | 13 | | 23 | | 23:00 | | | 2 | | 3 | | 5 | |
| 11:15 | | | 13 | | 12 | | 25 | | 23:15 | | | 2 | | 2 | | 4 | |
| 11:30 | | | 17 | | 12 | | 29 | | 23:30 | | | 2 | | 1 | | 3 | |
| 11:45 | | | 10 | 50 | 6 | 43 | 16 | 93 | 23:45 | | | 1 | 7 | 1 | 7 | 2 | 14 |
| TOTALS | | | | 277 | | 204 | | 481 | TOTALS | | | | 356 | | 407 | | 763 |
| SPLIT % | | | | 57.6% | | 42.4% | | 38.7% | SPLIT % | | | | 46.7% | | 53.3% | | 61.3% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 633 | 611 | 1,244 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 10:00 | 10:15 | 10:30 | PM Peak Hour | | | 15:45 | 13:00 | 13:00 |
| AM Pk Volume | | | 85 | 54 | 138 | PM Pk Volume | | | 55 | 60 | 106 |
| Pk Hr Factor | | | 0.443 | 0.964 | 0.556 | Pk Hr Factor | | | 0.764 | 0.750 | 0.803 |
| 7 - 9 Volume | 0 | 0 | 52 | 46 | 98 | 4 - 6 Volume | 0 | 0 | 77 | 89 | 166 |
| 7 - 9 Peak Hour | | | 07:45 | 07:30 | 07:45 | 4 - 6 Peak Hour | | | 16:00 | 16:00 | 16:00 |
| 7 - 9 Pk Volume | 0 | 0 | 37 | 28 | 62 | 4 - 6 Pk Volume | 0 | 0 | 44 | 53 | 97 |
| Pk Hr Factor | 0.000 | 0.000 | 0.841 | 0.636 | 0.775 | Pk Hr Factor | 0.000 | 0.000 | 0.846 | 0.779 | 0.970 |

Prepared by NDS/ATD

# VOLUME

## Mt Vernon Rd Bet. Ayers Holmes Rd & Mears Dr

**Day:** Friday
**Date:** 12/7/2018

**City:** Auburn
**Project #:** CA18_7414_006

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 853 | 861 | 1,714 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 1 | | 1 | | 12:00 | | | 13 | | 14 | | 27 | |
| 00:15 | | | 0 | | 1 | | 1 | | 12:15 | | | 17 | | 20 | | 37 | |
| 00:30 | | | 0 | | 0 | | 0 | | 12:30 | | | 10 | | 17 | | 27 | |
| 00:45 | | | 1 | 1 | 0 | 2 | 1 | 3 | 12:45 | | | 10 | 50 | 14 | 65 | 24 | 115 |
| 01:00 | | | 0 | | 1 | | 1 | | 13:00 | | | 10 | | 13 | | 23 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 9 | | 17 | | 26 | |
| 01:30 | | | 0 | | 0 | | 0 | | 13:30 | | | 17 | | 20 | | 37 | |
| 01:45 | | | 0 | | 0 | 1 | 0 | 1 | 13:45 | | | 10 | 46 | 11 | 61 | 21 | 107 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 11 | | 12 | | 23 | |
| 02:15 | | | 0 | | 0 | | 0 | | 14:15 | | | 18 | | 19 | | 37 | |
| 02:30 | | | 1 | | 0 | | 1 | | 14:30 | | | 13 | | 12 | | 25 | |
| 02:45 | | | 0 | 1 | 0 | | 0 | 1 | 14:45 | | | 16 | 58 | 16 | 59 | 32 | 117 |
| 03:00 | | | 0 | | 1 | | 1 | | 15:00 | | | 15 | | 15 | | 30 | |
| 03:15 | | | 1 | | 2 | | 3 | | 15:15 | | | 10 | | 16 | | 26 | |
| 03:30 | | | 3 | | 0 | | 3 | | 15:30 | | | 23 | | 25 | | 48 | |
| 03:45 | | | 0 | 4 | 0 | 3 | 0 | 7 | 15:45 | | | 24 | 72 | 24 | 80 | 48 | 152 |
| 04:00 | | | 1 | | 0 | | 1 | | 16:00 | | | 18 | | 23 | | 41 | |
| 04:15 | | | 4 | | 4 | | 8 | | 16:15 | | | 22 | | 25 | | 47 | |
| 04:30 | | | 3 | | 2 | | 5 | | 16:30 | | | 22 | | 19 | | 41 | |
| 04:45 | | | 3 | 11 | 2 | 8 | 5 | 19 | 16:45 | | | 19 | 81 | 31 | 98 | 50 | 179 |
| 05:00 | | | 3 | | 2 | | 5 | | 17:00 | | | 25 | | 22 | | 47 | |
| 05:15 | | | 2 | | 6 | | 8 | | 17:15 | | | 14 | | 21 | | 35 | |
| 05:30 | | | 8 | | 5 | | 13 | | 17:30 | | | 12 | | 20 | | 32 | |
| 05:45 | | | 8 | 21 | 4 | 17 | 12 | 38 | 17:45 | | | 12 | 63 | 14 | 77 | 26 | 140 |
| 06:00 | | | 9 | | 3 | | 12 | | 18:00 | | | 8 | | 18 | | 26 | |
| 06:15 | | | 13 | | 10 | | 23 | | 18:15 | | | 4 | | 7 | | 11 | |
| 06:30 | | | 16 | | 6 | | 22 | | 18:30 | | | 9 | | 12 | | 21 | |
| 06:45 | | | 14 | 52 | 9 | 28 | 23 | 80 | 18:45 | | | 7 | 28 | 4 | 41 | 11 | 69 |
| 07:00 | | | 21 | | 9 | | 30 | | 19:00 | | | 4 | | 11 | | 15 | |
| 07:15 | | | 16 | | 12 | | 28 | | 19:15 | | | 2 | | 12 | | 14 | |
| 07:30 | | | 28 | | 10 | | 38 | | 19:30 | | | 5 | | 5 | | 10 | |
| 07:45 | | | 22 | 87 | 16 | 47 | 38 | 134 | 19:45 | | | 1 | 12 | 7 | 35 | 8 | 47 |
| 08:00 | | | 13 | | 14 | | 27 | | 20:00 | | | 3 | | 10 | | 13 | |
| 08:15 | | | 14 | | 11 | | 25 | | 20:15 | | | 2 | | 2 | | 4 | |
| 08:30 | | | 17 | | 17 | | 34 | | 20:30 | | | 2 | | 5 | | 7 | |
| 08:45 | | | 17 | 61 | 11 | 53 | 28 | 114 | 20:45 | | | 7 | 14 | 4 | 21 | 11 | 35 |
| 09:00 | | | 12 | | 9 | | 21 | | 21:00 | | | 2 | | 10 | | 12 | |
| 09:15 | | | 14 | | 8 | | 22 | | 21:15 | | | 3 | | 4 | | 7 | |
| 09:30 | | | 14 | | 11 | | 25 | | 21:30 | | | 9 | | 4 | | 13 | |
| 09:45 | | | 13 | 53 | 9 | 37 | 22 | 90 | 21:45 | | | 4 | 18 | 2 | 20 | 6 | 38 |
| 10:00 | | | 15 | | 10 | | 25 | | 22:00 | | | 3 | | 4 | | 7 | |
| 10:15 | | | 13 | | 9 | | 22 | | 22:15 | | | 4 | | 4 | | 8 | |
| 10:30 | | | 13 | | 12 | | 25 | | 22:30 | | | 3 | | 4 | | 7 | |
| 10:45 | | | 8 | 49 | 12 | 43 | 20 | 92 | 22:45 | | | 1 | 11 | 0 | 12 | 1 | 23 |
| 11:00 | | | 14 | | 15 | | 29 | | 23:00 | | | 2 | | 2 | | 4 | |
| 11:15 | | | 13 | | 11 | | 24 | | 23:15 | | | 1 | | 0 | | 1 | |
| 11:30 | | | 15 | | 10 | | 25 | | 23:30 | | | 2 | | 2 | | 4 | |
| 11:45 | | | 9 | 51 | 11 | 47 | 20 | 98 | 23:45 | | | 4 | 9 | 2 | 6 | 6 | 15 |
| TOTALS | | | | 391 | | 286 | | 677 | TOTALS | | | | 462 | | 575 | | 1037 |
| SPLIT % | | | | 57.8% | | 42.2% | | 39.5% | SPLIT % | | | | 44.6% | | 55.4% | | 60.5% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 853 | 861 | 1,714 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 07:00 | 11:45 | 07:00 | PM Peak Hour | | | 16:15 | 16:00 | 16:15 |
| AM Pk Volume | | | 87 | 62 | 134 | PM Pk Volume | | | 88 | 98 | 185 |
| Pk Hr Factor | | | 0.777 | 0.775 | 0.882 | Pk Hr Factor | | | 0.880 | 0.790 | 0.925 |
| 7 - 9 Volume | 0 | 0 | 148 | 100 | 248 | 4 - 6 Volume | 0 | 0 | 144 | 175 | 319 |
| 7 - 9 Peak Hour | | | 07:00 | 07:45 | 07:00 | 4 - 6 Peak Hour | | | 16:15 | 16:00 | 16:15 |
| 7 - 9 Pk Volume | 0 | 0 | 87 | 58 | 134 | 4 - 6 Pk Volume | 0 | 0 | 88 | 98 | 185 |
| Pk Hr Factor | 0.000 | 0.000 | 0.777 | 0.853 | 0.882 | Pk Hr Factor | 0.000 | 0.000 | 0.880 | 0.790 | 0.925 |

Prepared by NDS/ATD

# VOLUME

## Mt Vernon Rd Bet. Hastings Ln & Meyer Ln

**Day:** Saturday
**Date:** 6/10/2017

**City:** Auburn
**Project #:** CA17_7498_024

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 1,348 | 1,331 | 2,679 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 31 | | 21 | | 52 | |
| 00:15 | | | 0 | | 0 | | 0 | | 12:15 | | | 21 | | 20 | | 41 | |
| 00:30 | | | 2 | | 2 | | 4 | | 12:30 | | | 25 | | 26 | | 51 | |
| 00:45 | | | 1 | 3 | 1 | 3 | 2 | 6 | 12:45 | | | 22 | 99 | 26 | 93 | 48 | 192 |
| 01:00 | | | 2 | | 1 | | 3 | | 13:00 | | | 30 | | 21 | | 51 | |
| 01:15 | | | 0 | | 1 | | 1 | | 13:15 | | | 18 | | 29 | | 47 | |
| 01:30 | | | 1 | | 1 | | 2 | | 13:30 | | | 25 | | 26 | | 51 | |
| 01:45 | | | 0 | 3 | 0 | 3 | 0 | 6 | 13:45 | | | 25 | 98 | 30 | 106 | 55 | 204 |
| 02:00 | | | 0 | | 1 | | 1 | | 14:00 | | | 15 | | 30 | | 45 | |
| 02:15 | | | 1 | | 0 | | 1 | | 14:15 | | | 30 | | 34 | | 64 | |
| 02:30 | | | 0 | | 0 | | 0 | | 14:30 | | | 24 | | 33 | | 57 | |
| 02:45 | | | 0 | 1 | 1 | 2 | 1 | 3 | 14:45 | | | 24 | 93 | 20 | 117 | 44 | 210 |
| 03:00 | | | 1 | | 0 | | 1 | | 15:00 | | | 19 | | 27 | | 46 | |
| 03:15 | | | 0 | | 1 | | 1 | | 15:15 | | | 21 | | 30 | | 51 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 29 | | 17 | | 46 | |
| 03:45 | | | 1 | 2 | 1 | 2 | 2 | 4 | 15:45 | | | 22 | 91 | 21 | 95 | 43 | 186 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 24 | | 27 | | 51 | |
| 04:15 | | | 0 | | 1 | | 1 | | 16:15 | | | 35 | | 24 | | 59 | |
| 04:30 | | | 2 | | 0 | | 2 | | 16:30 | | | 29 | | 27 | | 56 | |
| 04:45 | | | 4 | 6 | 1 | 2 | 5 | 8 | 16:45 | | | 30 | 118 | 18 | 96 | 48 | 214 |
| 05:00 | | | 1 | | 2 | | 3 | | 17:00 | | | 33 | | 22 | | 55 | |
| 05:15 | | | 2 | | 0 | | 2 | | 17:15 | | | 23 | | 17 | | 40 | |
| 05:30 | | | 3 | | 1 | | 4 | | 17:30 | | | 20 | | 22 | | 42 | |
| 05:45 | | | 9 | 15 | 1 | 4 | 10 | 19 | 17:45 | | | 21 | 97 | 24 | 85 | 45 | 182 |
| 06:00 | | | 3 | | 3 | | 6 | | 18:00 | | | 17 | | 16 | | 33 | |
| 06:15 | | | 4 | | 5 | | 9 | | 18:15 | | | 19 | | 12 | | 31 | |
| 06:30 | | | 8 | | 6 | | 14 | | 18:30 | | | 11 | | 15 | | 26 | |
| 06:45 | | | 12 | 27 | 6 | 20 | 18 | 47 | 18:45 | | | 10 | 57 | 14 | 57 | 24 | 114 |
| 07:00 | | | 10 | | 12 | | 22 | | 19:00 | | | 11 | | 10 | | 21 | |
| 07:15 | | | 14 | | 13 | | 27 | | 19:15 | | | 13 | | 8 | | 21 | |
| 07:30 | | | 12 | | 16 | | 28 | | 19:30 | | | 10 | | 14 | | 24 | |
| 07:45 | | | 11 | 47 | 15 | 56 | 26 | 103 | 19:45 | | | 14 | 48 | 8 | 40 | 22 | 88 |
| 08:00 | | | 14 | | 23 | | 37 | | 20:00 | | | 10 | | 7 | | 17 | |
| 08:15 | | | 18 | | 19 | | 37 | | 20:15 | | | 8 | | 4 | | 12 | |
| 08:30 | | | 25 | | 23 | | 48 | | 20:30 | | | 9 | | 14 | | 23 | |
| 08:45 | | | 22 | 79 | 24 | 89 | 46 | 168 | 20:45 | | | 12 | 39 | 10 | 35 | 22 | 74 |
| 09:00 | | | 23 | | 16 | | 39 | | 21:00 | | | 11 | | 10 | | 21 | |
| 09:15 | | | 35 | | 28 | | 63 | | 21:15 | | | 8 | | 7 | | 15 | |
| 09:30 | | | 29 | | 25 | | 54 | | 21:30 | | | 5 | | 9 | | 14 | |
| 09:45 | | | 23 | 110 | 28 | 97 | 51 | 207 | 21:45 | | | 2 | 26 | 6 | 32 | 8 | 58 |
| 10:00 | | | 28 | | 27 | | 55 | | 22:00 | | | 6 | | 8 | | 14 | |
| 10:15 | | | 39 | | 22 | | 61 | | 22:15 | | | 3 | | 6 | | 9 | |
| 10:30 | | | 34 | | 38 | | 72 | | 22:30 | | | 5 | | 3 | | 8 | |
| 10:45 | | | 35 | 136 | 24 | 111 | 59 | 247 | 22:45 | | | 6 | 20 | 3 | 20 | 9 | 40 |
| 11:00 | | | 27 | | 28 | | 55 | | 23:00 | | | 2 | | 6 | | 8 | |
| 11:15 | | | 26 | | 46 | | 72 | | 23:15 | | | 5 | | 10 | | 15 | |
| 11:30 | | | 41 | | 29 | | 70 | | 23:30 | | | 4 | | 14 | | 18 | |
| 11:45 | | | 27 | 121 | 25 | 128 | 52 | 249 | 23:45 | | | 1 | 12 | 8 | 38 | 9 | 50 |
| TOTALS | | | | 550 | | 517 | | 1067 | TOTALS | | | | 798 | | 814 | | 1612 |
| SPLIT % | | | | 51.5% | | 48.5% | | 39.8% | SPLIT % | | | | 49.5% | | 50.5% | | 60.2% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 1,348 | 1,331 | 2,679 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 10:00 | 10:30 | 10:30 | PM Peak Hour | | | 16:15 | 13:45 | 13:45 |
| AM Pk Volume | | | 136 | 136 | 258 | PM Pk Volume | | | 127 | 127 | 221 |
| Pk Hr Factor | | | 0.872 | 0.739 | 0.896 | Pk Hr Factor | | | 0.907 | 0.934 | 0.863 |
| 7 - 9 Volume | 0 | 0 | 126 | 145 | 271 | 4 - 6 Volume | 0 | 0 | 215 | 181 | 396 |
| 7 - 9 Peak Hour | | | 08:00 | 08:00 | 08:00 | 4 - 6 Peak Hour | | | 16:15 | 16:00 | 16:15 |
| 7 - 9 Pk Volume | 0 | 0 | 79 | 89 | 168 | 4 - 6 Pk Volume | 0 | 0 | 127 | 96 | 218 |
| Pk Hr Factor | 0.000 | 0.000 | 0.790 | 0.927 | 0.875 | Pk Hr Factor | 0.000 | 0.000 | 0.907 | 0.889 | 0.924 |

Prepared by NDS/ATD

# VOLUME

## Mt Vernon Rd Bet. Hastings Ln & Meyer Ln

**Day:** Tuesday
**Date:** 10/3/2017

**City:** Auburn
**Project #:** CA17_7775_024

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 998 | 1,012 | 2,010 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 12 | | 23 | | 35 | |
| 00:15 | | | 0 | | 0 | | 0 | | 12:15 | | | 22 | | 14 | | 36 | |
| 00:30 | | | 0 | | 0 | | 0 | | 12:30 | | | 10 | | 8 | | 18 | |
| 00:45 | | | 0 | | 0 | | 0 | | 12:45 | | | 18 | 62 | 18 | 63 | 36 | 125 |
| 01:00 | | | 0 | | 0 | | 0 | | 13:00 | | | 11 | | 16 | | 27 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 7 | | 17 | | 24 | |
| 01:30 | | | 1 | | 0 | | 1 | | 13:30 | | | 19 | | 18 | | 37 | |
| 01:45 | | | 0 | 1 | 0 | | 0 | 1 | 13:45 | | | 17 | 54 | 10 | 61 | 27 | 115 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 19 | | 13 | | 32 | |
| 02:15 | | | 0 | | 0 | | 0 | | 14:15 | | | 21 | | 9 | | 30 | |
| 02:30 | | | 2 | | 0 | | 2 | | 14:30 | | | 16 | | 15 | | 31 | |
| 02:45 | | | 0 | 2 | 0 | | 0 | 2 | 14:45 | | | 19 | 75 | 30 | 67 | 49 | 142 |
| 03:00 | | | 0 | | 0 | | 0 | | 15:00 | | | 18 | | 20 | | 38 | |
| 03:15 | | | 1 | | 0 | | 1 | | 15:15 | | | 14 | | 29 | | 43 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 12 | | 24 | | 36 | |
| 03:45 | | | 3 | 4 | 0 | | 3 | 4 | 15:45 | | | 14 | 58 | 15 | 88 | 29 | 146 |
| 04:00 | | | 1 | | 3 | | 4 | | 16:00 | | | 20 | | 30 | | 50 | |
| 04:15 | | | 4 | | 1 | | 5 | | 16:15 | | | 17 | | 32 | | 49 | |
| 04:30 | | | 0 | | 4 | | 4 | | 16:30 | | | 20 | | 28 | | 48 | |
| 04:45 | | | 3 | 8 | 0 | 8 | 3 | 16 | 16:45 | | | 20 | 77 | 28 | 118 | 48 | 195 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 19 | | 36 | | 55 | |
| 05:15 | | | 1 | | 6 | | 7 | | 17:15 | | | 15 | | 25 | | 40 | |
| 05:30 | | | 13 | | 1 | | 14 | | 17:30 | | | 12 | | 36 | | 48 | |
| 05:45 | | | 12 | 27 | 5 | 12 | 17 | 39 | 17:45 | | | 13 | 59 | 25 | 122 | 38 | 181 |
| 06:00 | | | 11 | | 3 | | 14 | | 18:00 | | | 9 | | 17 | | 26 | |
| 06:15 | | | 10 | | 6 | | 16 | | 18:15 | | | 15 | | 20 | | 35 | |
| 06:30 | | | 11 | | 11 | | 22 | | 18:30 | | | 13 | | 14 | | 27 | |
| 06:45 | | | 23 | 55 | 10 | 30 | 33 | 85 | 18:45 | | | 4 | 41 | 12 | 63 | 16 | 104 |
| 07:00 | | | 24 | | 9 | | 33 | | 19:00 | | | 6 | | 11 | | 17 | |
| 07:15 | | | 25 | | 9 | | 34 | | 19:15 | | | 5 | | 16 | | 21 | |
| 07:30 | | | 36 | | 10 | | 46 | | 19:30 | | | 6 | | 8 | | 14 | |
| 07:45 | | | 42 | 127 | 20 | 48 | 62 | 175 | 19:45 | | | 6 | 23 | 7 | 42 | 13 | 65 |
| 08:00 | | | 31 | | 11 | | 42 | | 20:00 | | | 4 | | 9 | | 13 | |
| 08:15 | | | 21 | | 12 | | 33 | | 20:15 | | | 5 | | 9 | | 14 | |
| 08:30 | | | 21 | | 17 | | 38 | | 20:30 | | | 4 | | 11 | | 15 | |
| 08:45 | | | 19 | 92 | 11 | 51 | 30 | 143 | 20:45 | | | 4 | 17 | 5 | 34 | 9 | 51 |
| 09:00 | | | 18 | | 6 | | 24 | | 21:00 | | | 3 | | 4 | | 7 | |
| 09:15 | | | 16 | | 12 | | 28 | | 21:15 | | | 2 | | 4 | | 6 | |
| 09:30 | | | 26 | | 12 | | 38 | | 21:30 | | | 1 | | 9 | | 10 | |
| 09:45 | | | 15 | 75 | 17 | 47 | 32 | 122 | 21:45 | | | 4 | 10 | 4 | 21 | 8 | 31 |
| 10:00 | | | 13 | | 13 | | 26 | | 22:00 | | | 1 | | 3 | | 4 | |
| 10:15 | | | 21 | | 14 | | 35 | | 22:15 | | | 0 | | 0 | | 0 | |
| 10:30 | | | 15 | | 12 | | 27 | | 22:30 | | | 1 | | 2 | | 3 | |
| 10:45 | | | 14 | 63 | 15 | 54 | 29 | 117 | 22:45 | | | 1 | 3 | 3 | 8 | 4 | 11 |
| 11:00 | | | 20 | | 20 | | 40 | | 23:00 | | | 1 | | 3 | | 4 | |
| 11:15 | | | 9 | | 15 | | 24 | | 23:15 | | | 0 | | 2 | | 2 | |
| 11:30 | | | 17 | | 15 | | 32 | | 23:30 | | | 0 | | 2 | | 2 | |
| 11:45 | | | 17 | 63 | 18 | 68 | 35 | 131 | 23:45 | | | 1 | 2 | 0 | 7 | 1 | 9 |
| TOTALS | | | | 517 | | 318 | | **835** | TOTALS | | | | 481 | | 694 | | **1175** |
| SPLIT % | | | | 61.9% | | 38.1% | | **41.5%** | SPLIT % | | | | 40.9% | | 59.1% | | **58.5%** |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 998 | 1,012 | 2,010 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AM Peak Hour** | | | 07:15 | 11:15 | **07:15** | **PM Peak Hour** | | | 16:00 | 16:45 | **16:15** |
| **AM Pk Volume** | | | 134 | 71 | **184** | **PM Pk Volume** | | | 77 | 125 | **200** |
| **Pk Hr Factor** | | | 0.798 | 0.772 | **0.742** | **Pk Hr Factor** | | | 0.963 | 0.868 | **0.909** |
| **7 - 9 Volume** | 0 | 0 | 219 | 99 | **318** | **4 - 6 Volume** | 0 | 0 | 136 | 240 | **376** |
| **7 - 9 Peak Hour** | | | 07:15 | 07:45 | **07:15** | **4 - 6 Peak Hour** | | | 16:00 | 16:45 | **16:15** |
| **7 - 9 Pk Volume** | 0 | 0 | 134 | 60 | **184** | **4 - 6 Pk Volume** | 0 | 0 | 77 | 125 | **200** |
| **Pk Hr Factor** | 0.000 | 0.000 | 0.798 | 0.750 | **0.742** | **Pk Hr Factor** | 0.000 | 0.000 | 0.963 | 0.868 | **0.909** |

Prepared by NDS/ATD

# VOLUME

## Garden Bar Rd Bet. Mt Pleasant Rd & Wise Rd

**Day:** Saturday
**Date:** 10/8/2016

**City:** Auburn
**Project #:** CA16_7715_005

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 335 | 356 | 0 | 0 | 691 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 3 | | 0 | | | | | | 3 | | 12:00 | 5 | | 9 | | | | | | 14 | |
| 00:15 | 0 | | 1 | | | | | | 1 | | 12:15 | 6 | | 7 | | | | | | 13 | |
| 00:30 | 1 | | 1 | | | | | | 2 | | 12:30 | 5 | | 2 | | | | | | 7 | |
| 00:45 | 1 | 5 | 0 | 2 | | | | | 1 | 7 | 12:45 | 3 | 19 | 7 | 25 | | | | | 10 | 44 |
| 01:00 | 0 | | 0 | | | | | | 0 | | 13:00 | 5 | | 8 | | | | | | 13 | |
| 01:15 | 0 | | 0 | | | | | | 0 | | 13:15 | 8 | | 7 | | | | | | 15 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 10 | | 10 | | | | | | 20 | |
| 01:45 | 0 | | 1 | 1 | | | | | 1 | 1 | 13:45 | 3 | 26 | 6 | 31 | | | | | 9 | 57 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 7 | | 4 | | | | | | 11 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 9 | | 4 | | | | | | 13 | |
| 02:30 | 0 | | 0 | | | | | | 0 | | 14:30 | 3 | | 6 | | | | | | 9 | |
| 02:45 | 0 | | 0 | | | | | | 0 | | 14:45 | 8 | 27 | 8 | 22 | | | | | 16 | 49 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 5 | | 7 | | | | | | 12 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 17 | | 7 | | | | | | 24 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 7 | | 0 | | | | | | 7 | |
| 03:45 | 1 | 1 | 0 | | | | | | 1 | 1 | 15:45 | 14 | 43 | 6 | 20 | | | | | 20 | 63 |
| 04:00 | 0 | | 1 | | | | | | 1 | | 16:00 | 10 | | 2 | | | | | | 12 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 4 | | 2 | | | | | | 6 | |
| 04:30 | 0 | | 0 | | | | | | 0 | | 16:30 | 7 | | 5 | | | | | | 12 | |
| 04:45 | 0 | | 0 | 1 | | | | | 0 | 1 | 16:45 | 5 | 26 | 6 | 15 | | | | | 11 | 41 |
| 05:00 | 0 | | 0 | | | | | | 0 | | 17:00 | 5 | | 2 | | | | | | 7 | |
| 05:15 | 0 | | 3 | | | | | | 3 | | 17:15 | 5 | | 7 | | | | | | 12 | |
| 05:30 | 0 | | 0 | | | | | | 0 | | 17:30 | 6 | | 8 | | | | | | 14 | |
| 05:45 | 1 | 1 | 2 | 5 | | | | | 3 | 6 | 17:45 | 3 | 19 | 7 | 24 | | | | | 10 | 43 |
| 06:00 | 1 | | 0 | | | | | | 1 | | 18:00 | 7 | | 5 | | | | | | 12 | |
| 06:15 | 0 | | 6 | | | | | | 6 | | 18:15 | 6 | | 2 | | | | | | 8 | |
| 06:30 | 0 | | 2 | | | | | | 2 | | 18:30 | 6 | | 5 | | | | | | 11 | |
| 06:45 | 0 | 1 | 3 | 11 | | | | | 3 | 12 | 18:45 | 5 | 24 | 7 | 19 | | | | | 12 | 43 |
| 07:00 | 2 | | 4 | | | | | | 6 | | 19:00 | 7 | | 3 | | | | | | 10 | |
| 07:15 | 1 | | 1 | | | | | | 2 | | 19:15 | 0 | | 3 | | | | | | 3 | |
| 07:30 | 4 | | 5 | | | | | | 9 | | 19:30 | 5 | | 2 | | | | | | 7 | |
| 07:45 | 4 | 11 | 6 | 16 | | | | | 10 | 27 | 19:45 | 3 | 15 | 6 | 14 | | | | | 9 | 29 |
| 08:00 | 0 | | 2 | | | | | | 2 | | 20:00 | 2 | | 2 | | | | | | 4 | |
| 08:15 | 0 | | 8 | | | | | | 8 | | 20:15 | 3 | | 0 | | | | | | 3 | |
| 08:30 | 1 | | 9 | | | | | | 10 | | 20:30 | 2 | | 3 | | | | | | 5 | |
| 08:45 | 8 | 9 | 7 | 26 | | | | | 15 | 35 | 20:45 | 3 | 10 | 0 | 5 | | | | | 3 | 15 |
| 09:00 | 6 | | 5 | | | | | | 11 | | 21:00 | 5 | | 5 | | | | | | 10 | |
| 09:15 | 4 | | 2 | | | | | | 6 | | 21:15 | 3 | | 4 | | | | | | 7 | |
| 09:30 | 5 | | 8 | | | | | | 13 | | 21:30 | 5 | | 1 | | | | | | 6 | |
| 09:45 | 5 | 20 | 6 | 21 | | | | | 11 | 41 | 21:45 | 4 | 17 | 1 | 11 | | | | | 5 | 28 |
| 10:00 | 3 | | 8 | | | | | | 11 | | 22:00 | 3 | | 2 | | | | | | 5 | |
| 10:15 | 17 | | 30 | | | | | | 47 | | 22:15 | 1 | | 0 | | | | | | 1 | |
| 10:30 | 4 | | 6 | | | | | | 10 | | 22:30 | 3 | | 3 | | | | | | 6 | |
| 10:45 | 2 | 26 | 7 | 51 | | | | | 9 | 77 | 22:45 | 2 | 9 | 0 | 5 | | | | | 2 | 14 |
| 11:00 | 5 | | 2 | | | | | | 7 | | 23:00 | 3 | | 0 | | | | | | 3 | |
| 11:15 | 6 | | 11 | | | | | | 17 | | 23:15 | 0 | | 0 | | | | | | 0 | |
| 11:30 | 3 | | 6 | | | | | | 9 | | 23:30 | 3 | | 3 | | | | | | 6 | |
| 11:45 | 4 | 18 | 8 | 27 | | | | | 12 | 45 | 23:45 | 2 | 8 | 1 | 4 | | | | | 3 | 12 |
| TOTALS | | 92 | | 161 | | | | | | 253 | TOTALS | | 243 | | 195 | | | | | | 438 |
| SPLIT % | | 36.4% | | 63.6% | | | | | | 36.6% | SPLIT % | | 55.5% | | 44.5% | | | | | | 63.4% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 335 | 356 | 0 | 0 | 691 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 09:30 | 09:30 | | | 09:30 | PM Peak Hour | 15:15 | 12:45 | | | 15:00 |
| AM Pk Volume | 30 | 52 | | | 82 | PM Pk Volume | 48 | 32 | | | 63 |
| Pk Hr Factor | 0.441 | 0.433 | | | 0.436 | Pk Hr Factor | 0.706 | 0.800 | | | 0.656 |
| 7 - 9 Volume | 20 | 42 | 0 | 0 | 62 | 4 - 6 Volume | 45 | 39 | 0 | 0 | 84 |
| 7 - 9 Peak Hour | 07:00 | 08:00 | | | 08:00 | 4 - 6 Peak Hour | 16:00 | 17:00 | | | 16:45 |
| 7 - 9 Pk Volume | 11 | 26 | 0 | 0 | 35 | 4 - 6 Pk Volume | 26 | 24 | 0 | 0 | 44 |
| Pk Hr Factor | 0.688 | 0.722 | 0.000 | 0.000 | 0.583 | Pk Hr Factor | 0.650 | 0.750 | 0.000 | 0.000 | 0.786 |

Prepared by NDS/ATD

# VOLUME

## Garden Bar Rd S/O Mt Pleasant Rd

**Day:** Friday
**Date:** 12/7/2018

**City:** Lincoln
**Project #:** CA18_7414_010

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 367 | 381 | 0 | 0 | 748 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | | 0 | | 12:00 | 4 | | 3 | | | | | | 7 | |
| 00:15 | 0 | | 0 | | | | | | 0 | | 12:15 | 8 | | 6 | | | | | | 14 | |
| 00:30 | 0 | | 0 | | | | | | 0 | | 12:30 | 3 | | 3 | | | | | | 6 | |
| 00:45 | 1 | 1 | 0 | | | | | | 1 | 1 | 12:45 | 7 | 22 | 3 | 15 | | | | | 10 | 37 |
| 01:00 | 0 | | 0 | | | | | | 0 | | 13:00 | 2 | | 3 | | | | | | 5 | |
| 01:15 | 0 | | 0 | | | | | | 0 | | 13:15 | 6 | | 5 | | | | | | 11 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 11 | | 4 | | | | | | 15 | |
| 01:45 | 0 | | 0 | | | | | | 0 | | 13:45 | 5 | 24 | 7 | 19 | | | | | 12 | 43 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 4 | | 9 | | | | | | 13 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 8 | | 5 | | | | | | 13 | |
| 02:30 | 1 | | 0 | | | | | | 1 | | 14:30 | 7 | | 5 | | | | | | 12 | |
| 02:45 | 0 | 1 | 0 | | | | | | 0 | 1 | 14:45 | 7 | 26 | 5 | 24 | | | | | 12 | 50 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 11 | | 9 | | | | | | 20 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 10 | | 5 | | | | | | 15 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 13 | | 7 | | | | | | 20 | |
| 03:45 | 0 | | 1 | 1 | | | | | 1 | 1 | 15:45 | 11 | 45 | 9 | 30 | | | | | 20 | 75 |
| 04:00 | 0 | | 2 | | | | | | 2 | | 16:00 | 3 | | 7 | | | | | | 10 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 5 | | 13 | | | | | | 18 | |
| 04:30 | 0 | | 2 | | | | | | 2 | | 16:30 | 12 | | 8 | | | | | | 20 | |
| 04:45 | 0 | | 3 | 7 | | | | | 3 | 7 | 16:45 | 13 | 33 | 4 | 32 | | | | | 17 | 65 |
| 05:00 | 0 | | 2 | | | | | | 2 | | 17:00 | 14 | | 4 | | | | | | 18 | |
| 05:15 | 0 | | 3 | | | | | | 3 | | 17:15 | 10 | | 5 | | | | | | 15 | |
| 05:30 | 0 | | 3 | | | | | | 3 | | 17:30 | 9 | | 3 | | | | | | 12 | |
| 05:45 | 1 | 1 | 7 | 15 | | | | | 8 | 16 | 17:45 | 9 | 42 | 4 | 16 | | | | | 13 | 58 |
| 06:00 | 0 | | 8 | | | | | | 8 | | 18:00 | 9 | | 8 | | | | | | 17 | |
| 06:15 | 1 | | 7 | | | | | | 8 | | 18:15 | 8 | | 3 | | | | | | 11 | |
| 06:30 | 1 | | 10 | | | | | | 11 | | 18:30 | 4 | | 3 | | | | | | 7 | |
| 06:45 | 1 | 3 | 9 | 34 | | | | | 10 | 37 | 18:45 | 1 | 22 | 6 | 20 | | | | | 7 | 42 |
| 07:00 | 2 | | 13 | | | | | | 15 | | 19:00 | 5 | | 2 | | | | | | 7 | |
| 07:15 | 2 | | 11 | | | | | | 13 | | 19:15 | 4 | | 5 | | | | | | 9 | |
| 07:30 | 3 | | 18 | | | | | | 21 | | 19:30 | 4 | | 1 | | | | | | 5 | |
| 07:45 | 6 | 13 | 16 | 58 | | | | | 22 | 71 | 19:45 | 5 | 18 | 1 | 9 | | | | | 6 | 27 |
| 08:00 | 4 | | 10 | | | | | | 14 | | 20:00 | 6 | | 1 | | | | | | 7 | |
| 08:15 | 1 | | 7 | | | | | | 8 | | 20:15 | 3 | | 0 | | | | | | 3 | |
| 08:30 | 3 | | 8 | | | | | | 11 | | 20:30 | 1 | | 4 | | | | | | 5 | |
| 08:45 | 4 | 12 | 3 | 28 | | | | | 7 | 40 | 20:45 | 6 | 16 | 0 | 5 | | | | | 6 | 21 |
| 09:00 | 7 | | 8 | | | | | | 15 | | 21:00 | 3 | | 1 | | | | | | 4 | |
| 09:15 | 6 | | 4 | | | | | | 10 | | 21:15 | 2 | | 0 | | | | | | 2 | |
| 09:30 | 2 | | 6 | | | | | | 8 | | 21:30 | 1 | | 1 | | | | | | 2 | |
| 09:45 | 5 | 20 | 3 | 21 | | | | | 8 | 41 | 21:45 | 3 | 9 | 1 | 3 | | | | | 4 | 12 |
| 10:00 | 5 | | 3 | | | | | | 8 | | 22:00 | 8 | | 2 | | | | | | 10 | |
| 10:15 | 4 | | 4 | | | | | | 8 | | 22:15 | 2 | | 0 | | | | | | 2 | |
| 10:30 | 4 | | 7 | | | | | | 11 | | 22:30 | 4 | | 2 | | | | | | 6 | |
| 10:45 | 3 | 16 | 5 | 19 | | | | | 8 | 35 | 22:45 | 2 | 16 | 0 | 4 | | | | | 2 | 20 |
| 11:00 | 1 | | 5 | | | | | | 6 | | 23:00 | 2 | | 0 | | | | | | 2 | |
| 11:15 | 10 | | 7 | | | | | | 17 | | 23:15 | 3 | | 0 | | | | | | 3 | |
| 11:30 | 5 | | 1 | | | | | | 6 | | 23:30 | 0 | | 1 | | | | | | 1 | |
| 11:45 | 6 | 22 | 7 | 20 | | | | | 13 | 42 | 23:45 | 0 | 5 | 0 | 1 | | | | | 0 | 6 |
| TOTALS | | 89 | | 203 | | | | | | 292 | TOTALS | | 278 | | 178 | | | | | | 456 |
| SPLIT % | | 30.5% | | 69.5% | | | | | | 39.0% | SPLIT % | | 61.0% | | 39.0% | | | | | | 61.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 367 | 381 | 0 | 0 | 748 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 11:15 | 07:00 | | | 07:00 | PM Peak Hour | 16:30 | 15:45 | | | 15:00 |
| AM Pk Volume | 25 | 58 | | | 71 | PM Pk Volume | 49 | 37 | | | 75 |
| Pk Hr Factor | 0.625 | 0.806 | | | 0.807 | Pk Hr Factor | 0.875 | 0.712 | | | 0.938 |
| 7 - 9 Volume | 25 | 86 | 0 | 0 | 111 | 4 - 6 Volume | 75 | 48 | 0 | 0 | 123 |
| 7 - 9 Peak Hour | 07:15 | 07:00 | | | 07:00 | 4 - 6 Peak Hour | 16:30 | 16:00 | | | 16:15 |
| 7 - 9 Pk Volume | 15 | 58 | 0 | 0 | 71 | 4 - 6 Pk Volume | 49 | 32 | 0 | 0 | 73 |
| Pk Hr Factor | 0.625 | 0.806 | 0.000 | 0.000 | 0.807 | Pk Hr Factor | 0.875 | 0.615 | 0.000 | 0.000 | 0.913 |

Prepared by NDS/ATD

# VOLUME

## Garden Bar Rd Bet. Mt Pleasant Rd & Private Rd

**Day:** Saturday
**Date:** 10/8/2016

**City:** Auburn
**Project #:** CA16_7715_006

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 166 | 150 | 0 | 0 | 316 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 1 | | 0 | | | | | | 1 | | 12:00 | 3 | | 4 | | | | | | 7 | |
| 00:15 | 0 | | 1 | | | | | | 1 | | 12:15 | 0 | | 4 | | | | | | 4 | |
| 00:30 | 0 | | 0 | | | | | | 0 | | 12:30 | 6 | | 1 | | | | | | 7 | |
| 00:45 | 1 | 2 | 0 | 1 | | | | | 1 | 3 | 12:45 | 3 | 12 | 2 | 11 | | | | | 5 | 23 |
| 01:00 | 0 | | 0 | | | | | | 0 | | 13:00 | 1 | | 2 | | | | | | 3 | |
| 01:15 | 0 | | 0 | | | | | | 0 | | 13:15 | 5 | | 3 | | | | | | 8 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 2 | | 4 | | | | | | 6 | |
| 01:45 | 0 | | 1 | 1 | | | | | 1 | 1 | 13:45 | 6 | 14 | 1 | 10 | | | | | 7 | 24 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 2 | | 4 | | | | | | 6 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 0 | | 4 | | | | | | 4 | |
| 02:30 | 0 | | 0 | | | | | | 0 | | 14:30 | 1 | | 1 | | | | | | 2 | |
| 02:45 | 0 | | 0 | | | | | | 0 | | 14:45 | 1 | 4 | 5 | 14 | | | | | 6 | 18 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 2 | | 1 | | | | | | 3 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 8 | | 4 | | | | | | 12 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 6 | | 2 | | | | | | 8 | |
| 03:45 | 0 | | 0 | | | | | | 0 | | 15:45 | 2 | 18 | 1 | 8 | | | | | 3 | 26 |
| 04:00 | 0 | | 0 | | | | | | 0 | | 16:00 | 1 | | 2 | | | | | | 3 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 2 | | 3 | | | | | | 5 | |
| 04:30 | 0 | | 0 | | | | | | 0 | | 16:30 | 4 | | 1 | | | | | | 5 | |
| 04:45 | 1 | 1 | 0 | | | | | | 1 | 1 | 16:45 | 0 | 7 | 1 | 7 | | | | | 1 | 14 |
| 05:00 | 0 | | 0 | | | | | | 0 | | 17:00 | 5 | | 3 | | | | | | 8 | |
| 05:15 | 0 | | 0 | | | | | | 0 | | 17:15 | 4 | | 3 | | | | | | 7 | |
| 05:30 | 0 | | 2 | | | | | | 2 | | 17:30 | 4 | | 5 | | | | | | 9 | |
| 05:45 | 0 | | 0 | 2 | | | | | 0 | 2 | 17:45 | 3 | 16 | 4 | 15 | | | | | 7 | 31 |
| 06:00 | 1 | | 1 | | | | | | 2 | | 18:00 | 6 | | 1 | | | | | | 7 | |
| 06:15 | 1 | | 1 | | | | | | 2 | | 18:15 | 3 | | 1 | | | | | | 4 | |
| 06:30 | 0 | | 1 | | | | | | 1 | | 18:30 | 4 | | 3 | | | | | | 7 | |
| 06:45 | 0 | 2 | 0 | 3 | | | | | 0 | 5 | 18:45 | 2 | 15 | 3 | 8 | | | | | 5 | 23 |
| 07:00 | 2 | | 4 | | | | | | 6 | | 19:00 | 4 | | 2 | | | | | | 6 | |
| 07:15 | 2 | | 3 | | | | | | 5 | | 19:15 | 2 | | 1 | | | | | | 3 | |
| 07:30 | 0 | | 2 | | | | | | 2 | | 19:30 | 0 | | 3 | | | | | | 3 | |
| 07:45 | 5 | 9 | 2 | 11 | | | | | 7 | 20 | 19:45 | 2 | 8 | 1 | 7 | | | | | 3 | 15 |
| 08:00 | 0 | | 2 | | | | | | 2 | | 20:00 | 5 | | 2 | | | | | | 7 | |
| 08:15 | 0 | | 3 | | | | | | 3 | | 20:15 | 1 | | 0 | | | | | | 1 | |
| 08:30 | 2 | | 4 | | | | | | 6 | | 20:30 | 1 | | 0 | | | | | | 1 | |
| 08:45 | 4 | 6 | 0 | 9 | | | | | 4 | 15 | 20:45 | 0 | 7 | 1 | 3 | | | | | 1 | 10 |
| 09:00 | 3 | | 4 | | | | | | 7 | | 21:00 | 1 | | 0 | | | | | | 1 | |
| 09:15 | 1 | | 2 | | | | | | 3 | | 21:15 | 0 | | 0 | | | | | | 0 | |
| 09:30 | 3 | | 7 | | | | | | 10 | | 21:30 | 2 | | 0 | | | | | | 2 | |
| 09:45 | 1 | 8 | 4 | 17 | | | | | 5 | 25 | 21:45 | 2 | 5 | 2 | 2 | | | | | 4 | 7 |
| 10:00 | 2 | | 8 | | | | | | 10 | | 22:00 | 3 | | 0 | | | | | | 3 | |
| 10:15 | 1 | | 3 | | | | | | 4 | | 22:15 | 2 | | 0 | | | | | | 2 | |
| 10:30 | 2 | | 0 | | | | | | 2 | | 22:30 | 1 | | 2 | | | | | | 3 | |
| 10:45 | 1 | 6 | 2 | 13 | | | | | 3 | 19 | 22:45 | 0 | 6 | 2 | 4 | | | | | 2 | 10 |
| 11:00 | 5 | | 0 | | | | | | 5 | | 23:00 | 1 | | 0 | | | | | | 1 | |
| 11:15 | 3 | | 2 | | | | | | 5 | | 23:15 | 0 | | 0 | | | | | | 0 | |
| 11:30 | 3 | | 0 | | | | | | 3 | | 23:30 | 1 | | 0 | | | | | | 1 | |
| 11:45 | 6 | 17 | 2 | 4 | | | | | 8 | 21 | 23:45 | 1 | 3 | 0 | | | | | | 1 | 3 |
| TOTALS | | 51 | | 61 | | | | | | 112 | TOTALS | | 115 | | 89 | | | | | | 204 |
| SPLIT % | | 45.5% | | 54.5% | | | | | | 35.4% | SPLIT % | | 56.4% | | 43.6% | | | | | | 64.6% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 166 | 150 | 0 | 0 | 316 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 11:00 | 09:30 | | | 09:30 | PM Peak Hour | 15:00 | 17:00 | | | 17:00 |
| AM Pk Volume | 17 | 22 | | | 29 | PM Pk Volume | 18 | 15 | | | 31 |
| Pk Hr Factor | 0.708 | 0.688 | | | 0.725 | Pk Hr Factor | 0.563 | 0.750 | | | 0.861 |
| 7 - 9 Volume | 15 | 20 | 0 | 0 | 35 | 4 - 6 Volume | 23 | 22 | 0 | 0 | 45 |
| 7 - 9 Peak Hour | 07:00 | 07:00 | | | 07:00 | 4 - 6 Peak Hour | 17:00 | 17:00 | | | 17:00 |
| 7 - 9 Pk Volume | 9 | 11 | 0 | 0 | 20 | 4 - 6 Pk Volume | 16 | 15 | 0 | 0 | 31 |
| Pk Hr Factor | 0.450 | 0.688 | 0.000 | 0.000 | 0.714 | Pk Hr Factor | 0.800 | 0.750 | 0.000 | 0.000 | 0.861 |

Prepared by NDS/ATD

# VOLUME

## Garden Bar Rd N/O Mt Pleasant Rd

**Day:** Friday
**Date:** 12/7/2018

**City:** Lincoln
**Project #:** CA18_7414_009

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 157 | 161 | 0 | 0 | 318 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | | 0 | | 12:00 | 2 | | 2 | | | | | | 4 | |
| 00:15 | 0 | | 0 | | | | | | 0 | | 12:15 | 4 | | 6 | | | | | | 10 | |
| 00:30 | 0 | | 0 | | | | | | 0 | | 12:30 | 4 | | 4 | | | | | | 8 | |
| 00:45 | 0 | | 0 | | | | | | 0 | | 12:45 | 2 | 12 | 2 | 14 | | | | | 4 | 26 |
| 01:00 | 0 | | 0 | | | | | | 0 | | 13:00 | 3 | | 0 | | | | | | 3 | |
| 01:15 | 0 | | 0 | | | | | | 0 | | 13:15 | 4 | | 1 | | | | | | 5 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 5 | | 4 | | | | | | 9 | |
| 01:45 | 0 | | 0 | | | | | | 0 | | 13:45 | 4 | 16 | 1 | 6 | | | | | 5 | 22 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 6 | | 6 | | | | | | 12 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 2 | | 3 | | | | | | 5 | |
| 02:30 | 1 | | 0 | | | | | | 1 | | 14:30 | 1 | | 4 | | | | | | 5 | |
| 02:45 | 0 | 1 | 0 | | | | | | 0 | 1 | 14:45 | 1 | 10 | 2 | 15 | | | | | 3 | 25 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 5 | | 1 | | | | | | 6 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 1 | | 3 | | | | | | 4 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 4 | | 11 | | | | | | 15 | |
| 03:45 | 0 | | 0 | | | | | | 0 | | 15:45 | 5 | 15 | 3 | 18 | | | | | 8 | 33 |
| 04:00 | 0 | | 0 | | | | | | 0 | | 16:00 | 2 | | 1 | | | | | | 3 | |
| 04:15 | 0 | | 0 | | | | | | 0 | | 16:15 | 0 | | 8 | | | | | | 8 | |
| 04:30 | 0 | | 1 | | | | | | 1 | | 16:30 | 4 | | 4 | | | | | | 8 | |
| 04:45 | 0 | | 0 | 1 | | | | | 0 | 1 | 16:45 | 6 | 12 | 3 | 16 | | | | | 9 | 28 |
| 05:00 | 0 | | 1 | | | | | | 1 | | 17:00 | 2 | | 5 | | | | | | 7 | |
| 05:15 | 0 | | 0 | | | | | | 0 | | 17:15 | 6 | | 3 | | | | | | 9 | |
| 05:30 | 0 | | 1 | | | | | | 1 | | 17:30 | 3 | | 4 | | | | | | 7 | |
| 05:45 | 1 | 1 | 2 | 4 | | | | | 3 | 5 | 17:45 | 0 | 11 | 1 | 13 | | | | | 1 | 24 |
| 06:00 | 0 | | 5 | | | | | | 5 | | 18:00 | 1 | | 3 | | | | | | 4 | |
| 06:15 | 0 | | 1 | | | | | | 1 | | 18:15 | 3 | | 1 | | | | | | 4 | |
| 06:30 | 1 | | 1 | | | | | | 2 | | 18:30 | 2 | | 2 | | | | | | 4 | |
| 06:45 | 1 | 2 | 1 | 8 | | | | | 2 | 10 | 18:45 | 2 | 8 | 2 | 8 | | | | | 4 | 16 |
| 07:00 | 1 | | 3 | | | | | | 4 | | 19:00 | 0 | | 0 | | | | | | 0 | |
| 07:15 | 1 | | 0 | | | | | | 1 | | 19:15 | 3 | | 1 | | | | | | 4 | |
| 07:30 | 1 | | 4 | | | | | | 5 | | 19:30 | 2 | | 0 | | | | | | 2 | |
| 07:45 | 1 | 4 | 3 | 10 | | | | | 4 | 14 | 19:45 | 1 | 6 | 0 | 1 | | | | | 1 | 7 |
| 08:00 | 0 | | 3 | | | | | | 3 | | 20:00 | 3 | | 1 | | | | | | 4 | |
| 08:15 | 0 | | 4 | | | | | | 4 | | 20:15 | 2 | | 0 | | | | | | 2 | |
| 08:30 | 2 | | 1 | | | | | | 3 | | 20:30 | 0 | | 2 | | | | | | 2 | |
| 08:45 | 3 | 5 | 1 | 9 | | | | | 4 | 14 | 20:45 | 2 | 7 | 0 | 3 | | | | | 2 | 10 |
| 09:00 | 7 | | 2 | | | | | | 9 | | 21:00 | 0 | | 0 | | | | | | 0 | |
| 09:15 | 3 | | 2 | | | | | | 5 | | 21:15 | 1 | | 0 | | | | | | 1 | |
| 09:30 | 1 | | 3 | | | | | | 4 | | 21:30 | 0 | | 0 | | | | | | 0 | |
| 09:45 | 1 | 12 | 1 | 8 | | | | | 2 | 20 | 21:45 | 1 | 2 | 0 | | | | | | 1 | 2 |
| 10:00 | 2 | | 2 | | | | | | 4 | | 22:00 | 1 | | 1 | | | | | | 2 | |
| 10:15 | 0 | | 2 | | | | | | 2 | | 22:15 | 1 | | 0 | | | | | | 1 | |
| 10:30 | 5 | | 1 | | | | | | 6 | | 22:30 | 3 | | 0 | | | | | | 3 | |
| 10:45 | 4 | 11 | 7 | 12 | | | | | 11 | 23 | 22:45 | 2 | 7 | 0 | 1 | | | | | 2 | 8 |
| 11:00 | 4 | | 1 | | | | | | 5 | | 23:00 | 0 | | 0 | | | | | | 0 | |
| 11:15 | 6 | | 3 | | | | | | 9 | | 23:15 | 0 | | 2 | | | | | | 2 | |
| 11:30 | 4 | | 4 | | | | | | 8 | | 23:30 | 0 | | 0 | | | | | | 0 | |
| 11:45 | 1 | 15 | 4 | 12 | | | | | 5 | 27 | 23:45 | 0 | | 0 | 2 | | | | | 0 | 2 |
| TOTALS | | 51 | | 64 | | | | | | 115 | TOTALS | | 106 | | 97 | | | | | | 203 |
| SPLIT % | | 44.3% | | 55.7% | | | | | | 36.2% | SPLIT % | | 52.2% | | 47.8% | | | | | | 63.8% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 157 | 161 | 0 | 0 | 318 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 10:30 | 11:30 | | | 10:45 | PM Peak Hour | 13:15 | 15:30 | | | 15:30 |
| AM Pk Volume | 19 | 16 | | | 33 | PM Pk Volume | 19 | 23 | | | 34 |
| Pk Hr Factor | 0.792 | 0.667 | | | 0.750 | Pk Hr Factor | 0.792 | 0.523 | | | 0.567 |
| 7 - 9 Volume | 9 | 19 | 0 | 0 | 28 | 4 - 6 Volume | 23 | 29 | 0 | 0 | 52 |
| 7 - 9 Peak Hour | 08:00 | 07:30 | | | 07:30 | 4 - 6 Peak Hour | 16:30 | 16:15 | | | 16:30 |
| 7 - 9 Pk Volume | 5 | 14 | 0 | 0 | 16 | 4 - 6 Pk Volume | 18 | 20 | 0 | 0 | 33 |
| Pk Hr Factor | 0.417 | 0.875 | 0.000 | 0.000 | 0.800 | Pk Hr Factor | 0.750 | 0.625 | 0.000 | 0.000 | 0.917 |

Prepared by NDS/ATD

# VOLUME

## Bell Rd Bet. Mallard Way & Cramer Rd

**Day:** Saturday
**Date:** 6/10/2017

**City:** Auburn
**Project #:** CA17_7498_012

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 248 | 295 | 0 | 0 | 543 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | | 0 | | 12:00 | 2 | | 4 | | | | | | 6 | |
| 00:15 | 1 | | 0 | | | | | | 1 | | 12:15 | 2 | | 2 | | | | | | 4 | |
| 00:30 | 0 | | 0 | | | | | | 0 | | 12:30 | 6 | | 7 | | | | | | 13 | |
| 00:45 | 1 | 2 | 1 | 1 | | | | | 2 | 3 | 12:45 | 1 | 11 | 4 | 17 | | | | | 5 | 28 |
| 01:00 | 1 | | 0 | | | | | | 1 | | 13:00 | 5 | | 3 | | | | | | 8 | |
| 01:15 | 1 | | 2 | | | | | | 3 | | 13:15 | 6 | | 2 | | | | | | 8 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 9 | | 5 | | | | | | 14 | |
| 01:45 | 0 | 2 | 0 | 2 | | | | | 0 | 4 | 13:45 | 6 | 26 | 5 | 15 | | | | | 11 | 41 |
| 02:00 | 1 | | 0 | | | | | | 1 | | 14:00 | 4 | | 5 | | | | | | 9 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 3 | | 9 | | | | | | 12 | |
| 02:30 | 2 | | 0 | | | | | | 2 | | 14:30 | 5 | | 6 | | | | | | 11 | |
| 02:45 | 0 | 3 | 1 | 1 | | | | | 1 | 4 | 14:45 | 4 | 16 | 10 | 30 | | | | | 14 | 46 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 7 | | 10 | | | | | | 17 | |
| 03:15 | 1 | | 0 | | | | | | 1 | | 15:15 | 6 | | 8 | | | | | | 14 | |
| 03:30 | 0 | | 1 | | | | | | 1 | | 15:30 | 8 | | 7 | | | | | | 15 | |
| 03:45 | 2 | 3 | 0 | 1 | | | | | 2 | 4 | 15:45 | 7 | 28 | 5 | 30 | | | | | 12 | 58 |
| 04:00 | 0 | | 2 | | | | | | 2 | | 16:00 | 5 | | 2 | | | | | | 7 | |
| 04:15 | 1 | | 0 | | | | | | 1 | | 16:15 | 3 | | 3 | | | | | | 6 | |
| 04:30 | 0 | | 1 | | | | | | 1 | | 16:30 | 6 | | 4 | | | | | | 10 | |
| 04:45 | 0 | 1 | 0 | 3 | | | | | 0 | 4 | 16:45 | 3 | 17 | 5 | 14 | | | | | 8 | 31 |
| 05:00 | 2 | | 1 | | | | | | 3 | | 17:00 | 5 | | 3 | | | | | | 8 | |
| 05:15 | 1 | | 1 | | | | | | 2 | | 17:15 | 5 | | 7 | | | | | | 12 | |
| 05:30 | 1 | | 2 | | | | | | 3 | | 17:30 | 2 | | 4 | | | | | | 6 | |
| 05:45 | 3 | 7 | 1 | 5 | | | | | 4 | 12 | 17:45 | 1 | 13 | 2 | 16 | | | | | 3 | 29 |
| 06:00 | 1 | | 2 | | | | | | 3 | | 18:00 | 4 | | 6 | | | | | | 10 | |
| 06:15 | 1 | | 2 | | | | | | 3 | | 18:15 | 2 | | 4 | | | | | | 6 | |
| 06:30 | 1 | | 2 | | | | | | 3 | | 18:30 | 6 | | 3 | | | | | | 9 | |
| 06:45 | 1 | 4 | 2 | 8 | | | | | 3 | 12 | 18:45 | 3 | 15 | 4 | 17 | | | | | 7 | 32 |
| 07:00 | 0 | | 5 | | | | | | 5 | | 19:00 | 2 | | 3 | | | | | | 5 | |
| 07:15 | 1 | | 2 | | | | | | 3 | | 19:15 | 3 | | 4 | | | | | | 7 | |
| 07:30 | 1 | | 3 | | | | | | 4 | | 19:30 | 3 | | 1 | | | | | | 4 | |
| 07:45 | 3 | 5 | 4 | 14 | | | | | 7 | 19 | 19:45 | 1 | 9 | 2 | 10 | | | | | 3 | 19 |
| 08:00 | 3 | | 9 | | | | | | 12 | | 20:00 | 2 | | 3 | | | | | | 5 | |
| 08:15 | 2 | | 4 | | | | | | 6 | | 20:15 | 2 | | 3 | | | | | | 5 | |
| 08:30 | 4 | | 6 | | | | | | 10 | | 20:30 | 4 | | 0 | | | | | | 4 | |
| 08:45 | 1 | 10 | 8 | 27 | | | | | 9 | 37 | 20:45 | 2 | 10 | 5 | 11 | | | | | 7 | 21 |
| 09:00 | 5 | | 7 | | | | | | 12 | | 21:00 | 1 | | 1 | | | | | | 2 | |
| 09:15 | 5 | | 2 | | | | | | 7 | | 21:15 | 2 | | 1 | | | | | | 3 | |
| 09:30 | 4 | | 4 | | | | | | 8 | | 21:30 | 5 | | 0 | | | | | | 5 | |
| 09:45 | 4 | 18 | 3 | 16 | | | | | 7 | 34 | 21:45 | 2 | 10 | 2 | 4 | | | | | 4 | 14 |
| 10:00 | 2 | | 4 | | | | | | 6 | | 22:00 | 4 | | 0 | | | | | | 4 | |
| 10:15 | 1 | | 3 | | | | | | 4 | | 22:15 | 2 | | 2 | | | | | | 4 | |
| 10:30 | 6 | | 4 | | | | | | 10 | | 22:30 | 1 | | 4 | | | | | | 5 | |
| 10:45 | 4 | 13 | 2 | 13 | | | | | 6 | 26 | 22:45 | 0 | 7 | 1 | 7 | | | | | 1 | 14 |
| 11:00 | 4 | | 9 | | | | | | 13 | | 23:00 | 2 | | 0 | | | | | | 2 | |
| 11:15 | 3 | | 8 | | | | | | 11 | | 23:15 | 1 | | 2 | | | | | | 3 | |
| 11:30 | 4 | | 8 | | | | | | 12 | | 23:30 | 1 | | 0 | | | | | | 1 | |
| 11:45 | 3 | 14 | 5 | 30 | | | | | 8 | 44 | 23:45 | 0 | 4 | 1 | 3 | | | | | 1 | 7 |
| TOTALS | | 82 | | 121 | | | | | | 203 | TOTALS | | 166 | | 174 | | | | | | 340 |
| SPLIT % | | 40.4% | | 59.6% | | | | | | 37.4% | SPLIT % | | 48.8% | | 51.2% | | | | | | 62.6% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 248 | 295 | 0 | 0 | 543 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 09:00 | 11:00 | | | 11:00 | PM Peak Hour | 15:00 | 14:15 | | | 14:45 |
| AM Pk Volume | 18 | 30 | | | 44 | PM Pk Volume | 28 | 35 | | | 60 |
| Pk Hr Factor | 0.900 | 0.833 | | | 0.846 | Pk Hr Factor | 0.875 | 0.875 | | | 0.882 |
| 7 - 9 Volume | 15 | 41 | 0 | 0 | 56 | 4 - 6 Volume | 30 | 30 | 0 | 0 | 60 |
| 7 - 9 Peak Hour | 07:45 | 08:00 | | | 08:00 | 4 - 6 Peak Hour | 16:30 | 16:30 | | | 16:30 |
| 7 - 9 Pk Volume | 12 | 27 | 0 | 0 | 37 | 4 - 6 Pk Volume | 19 | 19 | 0 | 0 | 38 |
| Pk Hr Factor | 0.750 | 0.750 | 0.000 | 0.000 | 0.771 | Pk Hr Factor | 0.792 | 0.679 | 0.000 | 0.000 | 0.792 |

Prepared by NDS/ATD

# VOLUME

## Bell Rd Bet. Mallard Way & Cramer Rd

**Day:** Tuesday
**Date:** 10/3/2017

**City:** Auburn
**Project #:** CA17_7775_012

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 290 | 324 | 0 | 0 | 614 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | | 0 | | 12:00 | 5 | | 5 | | | | | | 10 | |
| 00:15 | 0 | | 1 | | | | | | 1 | | 12:15 | 5 | | 6 | | | | | | 11 | |
| 00:30 | 1 | | 0 | | | | | | 1 | | 12:30 | 3 | | 7 | | | | | | 10 | |
| 00:45 | 0 | 1 | 1 | 2 | | | | | 1 | 3 | 12:45 | 5 | 18 | 3 | 21 | | | | | 8 | 39 |
| 01:00 | 1 | | 0 | | | | | | 1 | | 13:00 | 7 | | 7 | | | | | | 14 | |
| 01:15 | 0 | | 0 | | | | | | 0 | | 13:15 | 2 | | 2 | | | | | | 4 | |
| 01:30 | 0 | | 0 | | | | | | 0 | | 13:30 | 4 | | 10 | | | | | | 14 | |
| 01:45 | 0 | 1 | 0 | | | | | | 0 | 1 | 13:45 | 3 | 16 | 4 | 23 | | | | | 7 | 39 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 5 | | 5 | | | | | | 10 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 5 | | 4 | | | | | | 9 | |
| 02:30 | 0 | | 0 | | | | | | 0 | | 14:30 | 5 | | 5 | | | | | | 10 | |
| 02:45 | 0 | | 0 | | | | | | 0 | | 14:45 | 6 | 21 | 8 | 22 | | | | | 14 | 43 |
| 03:00 | 1 | | 0 | | | | | | 1 | | 15:00 | 10 | | 8 | | | | | | 18 | |
| 03:15 | 0 | | 0 | | | | | | 0 | | 15:15 | 10 | | 6 | | | | | | 16 | |
| 03:30 | 0 | | 0 | | | | | | 0 | | 15:30 | 7 | | 7 | | | | | | 14 | |
| 03:45 | 0 | 1 | 0 | | | | | | 0 | 1 | 15:45 | 9 | 36 | 6 | 27 | | | | | 15 | 63 |
| 04:00 | 0 | | 1 | | | | | | 1 | | 16:00 | 5 | | 4 | | | | | | 9 | |
| 04:15 | 0 | | 2 | | | | | | 2 | | 16:15 | 9 | | 7 | | | | | | 16 | |
| 04:30 | 0 | | 1 | | | | | | 1 | | 16:30 | 2 | | 5 | | | | | | 7 | |
| 04:45 | 0 | | 2 | 6 | | | | | 2 | 6 | 16:45 | 7 | 23 | 4 | 20 | | | | | 11 | 43 |
| 05:00 | 0 | | 1 | | | | | | 1 | | 17:00 | 16 | | 6 | | | | | | 22 | |
| 05:15 | 2 | | 2 | | | | | | 4 | | 17:15 | 9 | | 5 | | | | | | 14 | |
| 05:30 | 0 | | 2 | | | | | | 2 | | 17:30 | 7 | | 6 | | | | | | 13 | |
| 05:45 | 0 | 2 | 2 | 7 | | | | | 2 | 9 | 17:45 | 5 | 37 | 8 | 25 | | | | | 13 | 62 |
| 06:00 | 0 | | 3 | | | | | | 3 | | 18:00 | 7 | | 3 | | | | | | 10 | |
| 06:15 | 1 | | 3 | | | | | | 4 | | 18:15 | 8 | | 3 | | | | | | 11 | |
| 06:30 | 0 | | 1 | | | | | | 1 | | 18:30 | 3 | | 3 | | | | | | 6 | |
| 06:45 | 2 | 3 | 2 | 9 | | | | | 4 | 12 | 18:45 | 5 | 23 | 9 | 18 | | | | | 14 | 41 |
| 07:00 | 1 | | 3 | | | | | | 4 | | 19:00 | 3 | | 1 | | | | | | 4 | |
| 07:15 | 2 | | 8 | | | | | | 10 | | 19:15 | 9 | | 2 | | | | | | 11 | |
| 07:30 | 2 | | 9 | | | | | | 11 | | 19:30 | 8 | | 2 | | | | | | 10 | |
| 07:45 | 3 | 8 | 8 | 28 | | | | | 11 | 36 | 19:45 | 1 | 21 | 1 | 6 | | | | | 2 | 27 |
| 08:00 | 6 | | 6 | | | | | | 12 | | 20:00 | 2 | | 1 | | | | | | 3 | |
| 08:15 | 2 | | 6 | | | | | | 8 | | 20:15 | 3 | | 0 | | | | | | 3 | |
| 08:30 | 1 | | 7 | | | | | | 8 | | 20:30 | 3 | | 2 | | | | | | 5 | |
| 08:45 | 3 | 12 | 8 | 27 | | | | | 11 | 39 | 20:45 | 3 | 11 | 1 | 4 | | | | | 4 | 15 |
| 09:00 | 4 | | 11 | | | | | | 15 | | 21:00 | 0 | | 1 | | | | | | 1 | |
| 09:15 | 3 | | 10 | | | | | | 13 | | 21:15 | 2 | | 0 | | | | | | 2 | |
| 09:30 | 1 | | 7 | | | | | | 8 | | 21:30 | 0 | | 0 | | | | | | 0 | |
| 09:45 | 6 | 14 | 4 | 32 | | | | | 10 | 46 | 21:45 | 1 | 3 | 2 | 3 | | | | | 3 | 6 |
| 10:00 | 4 | | 11 | | | | | | 15 | | 22:00 | 1 | | 0 | | | | | | 1 | |
| 10:15 | 4 | | 4 | | | | | | 8 | | 22:15 | 3 | | 1 | | | | | | 4 | |
| 10:30 | 3 | | 3 | | | | | | 6 | | 22:30 | 0 | | 0 | | | | | | 0 | |
| 10:45 | 6 | 17 | 4 | 22 | | | | | 10 | 39 | 22:45 | 2 | 6 | 1 | 2 | | | | | 3 | 8 |
| 11:00 | 7 | | 3 | | | | | | 10 | | 23:00 | 0 | | 0 | | | | | | 0 | |
| 11:15 | 3 | | 6 | | | | | | 9 | | 23:15 | 1 | | 0 | | | | | | 1 | |
| 11:30 | 4 | | 5 | | | | | | 9 | | 23:30 | 0 | | 0 | | | | | | 0 | |
| 11:45 | 1 | 15 | 6 | 20 | | | | | 7 | 35 | 23:45 | 0 | 1 | 0 | | | | | | 0 | 1 |
| TOTALS | | 74 | | 153 | | | | | | 227 | TOTALS | | 216 | | 171 | | | | | | 387 |
| SPLIT % | | 32.6% | | 67.4% | | | | | | 37.0% | SPLIT % | | 55.8% | | 44.2% | | | | | | 63.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 290 | 324 | 0 | 0 | 614 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 10:15 | 08:30 | | | 08:30 | PM Peak Hour | 16:45 | 14:45 | | | 15:00 |
| AM Pk Volume | 20 | 36 | | | 47 | PM Pk Volume | 39 | 29 | | | 63 |
| Pk Hr Factor | 0.714 | 0.818 | | | 0.783 | Pk Hr Factor | 0.609 | 0.906 | | | 0.875 |
| 7 - 9 Volume | 20 | 55 | 0 | 0 | 75 | 4 - 6 Volume | 60 | 45 | 0 | 0 | 105 |
| 7 - 9 Peak Hour | 07:15 | 07:15 | | | 07:15 | 4 - 6 Peak Hour | 16:45 | 17:00 | | | 17:00 |
| 7 - 9 Pk Volume | 13 | 31 | 0 | 0 | 44 | 4 - 6 Pk Volume | 39 | 25 | 0 | 0 | 62 |
| Pk Hr Factor | 0.542 | 0.861 | 0.000 | 0.000 | 0.917 | Pk Hr Factor | 0.609 | 0.781 | 0.000 | 0.000 | 0.705 |

Prepared by NDS/ATD

# VOLUME

## Bell Rd Bet. Coyote Ridge Ct & Miracle Dr

**Day:** Saturday
**Date:** 6/10/2017

**City:** Auburn
**Project #:** CA17_7498_011

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 682 | 647 | 1,329 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 1 | | 2 | | 3 | | 12:00 | | | 11 | | 11 | | 22 | |
| 00:15 | | | 0 | | 2 | | 2 | | 12:15 | | | 10 | | 8 | | 18 | |
| 00:30 | | | 2 | | 2 | | 4 | | 12:30 | | | 15 | | 13 | | 28 | |
| 00:45 | | | 0 | 3 | 3 | 9 | 3 | 12 | 12:45 | | | 11 | 47 | 14 | 46 | 25 | 93 |
| 01:00 | | | 1 | | 2 | | 3 | | 13:00 | | | 12 | | 17 | | 29 | |
| 01:15 | | | 0 | | 1 | | 1 | | 13:15 | | | 10 | | 17 | | 27 | |
| 01:30 | | | 1 | | 0 | | 1 | | 13:30 | | | 13 | | 17 | | 30 | |
| 01:45 | | | 0 | 2 | 2 | 5 | 2 | 7 | 13:45 | | | 14 | 49 | 15 | 66 | 29 | 115 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 11 | | 13 | | 24 | |
| 02:15 | | | 1 | | 0 | | 1 | | 14:15 | | | 12 | | 9 | | 21 | |
| 02:30 | | | 0 | | 1 | | 1 | | 14:30 | | | 12 | | 10 | | 22 | |
| 02:45 | | | 1 | 2 | 0 | 1 | 1 | 3 | 14:45 | | | 19 | 54 | 7 | 39 | 26 | 93 |
| 03:00 | | | 0 | | 1 | | 1 | | 15:00 | | | 11 | | 15 | | 26 | |
| 03:15 | | | 1 | | 0 | | 1 | | 15:15 | | | 8 | | 17 | | 25 | |
| 03:30 | | | 0 | | 1 | | 1 | | 15:30 | | | 16 | | 13 | | 29 | |
| 03:45 | | | 1 | 2 | 1 | 3 | 2 | 5 | 15:45 | | | 12 | 47 | 11 | 56 | 23 | 103 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 10 | | 10 | | 20 | |
| 04:15 | | | 1 | | 1 | | 2 | | 16:15 | | | 9 | | 12 | | 21 | |
| 04:30 | | | 1 | | 0 | | 1 | | 16:30 | | | 13 | | 18 | | 31 | |
| 04:45 | | | 0 | 2 | 1 | 2 | 1 | 4 | 16:45 | | | 10 | 42 | 9 | 49 | 19 | 91 |
| 05:00 | | | 2 | | 3 | | 5 | | 17:00 | | | 14 | | 17 | | 31 | |
| 05:15 | | | 1 | | 2 | | 3 | | 17:15 | | | 14 | | 12 | | 26 | |
| 05:30 | | | 1 | | 2 | | 3 | | 17:30 | | | 6 | | 9 | | 15 | |
| 05:45 | | | 1 | 5 | 2 | 9 | 3 | 14 | 17:45 | | | 14 | 48 | 16 | 54 | 30 | 102 |
| 06:00 | | | 2 | | 2 | | 4 | | 18:00 | | | 10 | | 10 | | 20 | |
| 06:15 | | | 5 | | 2 | | 7 | | 18:15 | | | 3 | | 15 | | 18 | |
| 06:30 | | | 5 | | 2 | | 7 | | 18:30 | | | 3 | | 10 | | 13 | |
| 06:45 | | | 4 | 16 | 1 | 7 | 5 | 23 | 18:45 | | | 11 | 27 | 12 | 47 | 23 | 74 |
| 07:00 | | | 3 | | 4 | | 7 | | 19:00 | | | 15 | | 10 | | 25 | |
| 07:15 | | | 6 | | 4 | | 10 | | 19:15 | | | 5 | | 12 | | 17 | |
| 07:30 | | | 11 | | 3 | | 14 | | 19:30 | | | 11 | | 15 | | 26 | |
| 07:45 | | | 10 | 30 | 7 | 18 | 17 | 48 | 19:45 | | | 8 | 39 | 8 | 45 | 16 | 84 |
| 08:00 | | | 12 | | 2 | | 14 | | 20:00 | | | 7 | | 4 | | 11 | |
| 08:15 | | | 5 | | 2 | | 7 | | 20:15 | | | 8 | | 8 | | 16 | |
| 08:30 | | | 8 | | 5 | | 13 | | 20:30 | | | 6 | | 4 | | 10 | |
| 08:45 | | | 20 | 45 | 5 | 14 | 25 | 59 | 20:45 | | | 2 | 23 | 7 | 23 | 9 | 46 |
| 09:00 | | | 15 | | 14 | | 29 | | 21:00 | | | 9 | | 1 | | 10 | |
| 09:15 | | | 9 | | 6 | | 15 | | 21:15 | | | 4 | | 4 | | 8 | |
| 09:30 | | | 9 | | 9 | | 18 | | 21:30 | | | 5 | | 4 | | 9 | |
| 09:45 | | | 12 | 45 | 6 | 35 | 18 | 80 | 21:45 | | | 12 | 30 | 5 | 14 | 17 | 44 |
| 10:00 | | | 16 | | 6 | | 22 | | 22:00 | | | 4 | | 5 | | 9 | |
| 10:15 | | | 14 | | 7 | | 21 | | 22:15 | | | 8 | | 5 | | 13 | |
| 10:30 | | | 11 | | 11 | | 22 | | 22:30 | | | 3 | | 5 | | 8 | |
| 10:45 | | | 11 | 52 | 8 | 32 | 19 | 84 | 22:45 | | | 3 | 18 | 3 | 18 | 6 | 36 |
| 11:00 | | | 11 | | 15 | | 26 | | 23:00 | | | 1 | | 4 | | 5 | |
| 11:15 | | | 11 | | 6 | | 17 | | 23:15 | | | 1 | | 4 | | 5 | |
| 11:30 | | | 16 | | 11 | | 27 | | 23:30 | | | 4 | | 2 | | 6 | |
| 11:45 | | | 9 | 47 | 10 | 42 | 19 | 89 | 23:45 | | | 1 | 7 | 3 | 13 | 4 | 20 |
| TOTALS | | | | 251 | | 177 | | 428 | TOTALS | | | | 431 | | 470 | | 901 |
| SPLIT % | | | | 58.6% | | 41.4% | | 32.2% | SPLIT % | | | | 47.8% | | 52.2% | | 67.8% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 682 | 647 | 1,329 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 08:45 | 11:00 | 10:45 | PM Peak Hour | | | 14:00 | 13:00 | 13:00 |
| AM Pk Volume | | | 53 | 42 | 89 | PM Pk Volume | | | 54 | 66 | 115 |
| Pk Hr Factor | | | 0.663 | 0.700 | 0.824 | Pk Hr Factor | | | 0.711 | 0.971 | 0.958 |
| 7 - 9 Volume | 0 | 0 | 75 | 32 | 107 | 4 - 6 Volume | 0 | 0 | 90 | 103 | 193 |
| 7 - 9 Peak Hour | | | 08:00 | 07:00 | 08:00 | 4 - 6 Peak Hour | | | 16:30 | 16:15 | 16:30 |
| 7 - 9 Pk Volume | 0 | 0 | 45 | 18 | 59 | 4 - 6 Pk Volume | 0 | 0 | 51 | 56 | 107 |
| Pk Hr Factor | 0.000 | 0.000 | 0.563 | 0.643 | 0.590 | Pk Hr Factor | 0.000 | 0.000 | 0.911 | 0.778 | 0.863 |

Prepared by NDS/ATD

# VOLUME

## Bell Rd Bet. Coyote Ridge Ct & Miracle Dr

**Day:** Tuesday
**Date:** 10/3/2017

**City:** Auburn
**Project #:** CA17_7775_011

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 687 | 713 | 0 | 0 | 1,400 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | | PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | 0 | | 0 | | | | | | 0 | | 12:00 | 13 | | 7 | | | | | | 20 | |
| 00:15 | 1 | | 1 | | | | | | 2 | | 12:15 | 8 | | 11 | | | | | | 19 | |
| 00:30 | 2 | | 1 | | | | | | 3 | | 12:30 | 6 | | 13 | | | | | | 19 | |
| 00:45 | 0 | 3 | 0 | 2 | | | | | 0 | 5 | 12:45 | 10 | 37 | 15 | 46 | | | | | 25 | 83 |
| 01:00 | 0 | | 0 | | | | | | 0 | | 13:00 | 13 | | 11 | | | | | | 24 | |
| 01:15 | 0 | | 0 | | | | | | 0 | | 13:15 | 11 | | 14 | | | | | | 25 | |
| 01:30 | 1 | | 1 | | | | | | 2 | | 13:30 | 11 | | 10 | | | | | | 21 | |
| 01:45 | 0 | 1 | 0 | 1 | | | | | 0 | 2 | 13:45 | 11 | 46 | 7 | 42 | | | | | 18 | 88 |
| 02:00 | 0 | | 0 | | | | | | 0 | | 14:00 | 14 | | 15 | | | | | | 29 | |
| 02:15 | 0 | | 0 | | | | | | 0 | | 14:15 | 22 | | 12 | | | | | | 34 | |
| 02:30 | 2 | | 0 | | | | | | 2 | | 14:30 | 10 | | 12 | | | | | | 22 | |
| 02:45 | 0 | 2 | 0 | | | | | | 0 | 2 | 14:45 | 17 | 63 | 11 | 50 | | | | | 28 | 113 |
| 03:00 | 0 | | 0 | | | | | | 0 | | 15:00 | 19 | | 10 | | | | | | 29 | |
| 03:15 | 0 | | 1 | | | | | | 1 | | 15:15 | 20 | | 13 | | | | | | 33 | |
| 03:30 | 0 | | 1 | | | | | | 1 | | 15:30 | 10 | | 7 | | | | | | 17 | |
| 03:45 | 0 | | 1 | 3 | | | | | 1 | 3 | 15:45 | 18 | 67 | 11 | 41 | | | | | 29 | 108 |
| 04:00 | 1 | | 0 | | | | | | 1 | | 16:00 | 17 | | 13 | | | | | | 30 | |
| 04:15 | 0 | | 1 | | | | | | 1 | | 16:15 | 19 | | 14 | | | | | | 33 | |
| 04:30 | 0 | | 2 | | | | | | 2 | | 16:30 | 13 | | 12 | | | | | | 25 | |
| 04:45 | 1 | 2 | 0 | 3 | | | | | 1 | 5 | 16:45 | 17 | 66 | 10 | 49 | | | | | 27 | 115 |
| 05:00 | 2 | | 3 | | | | | | 5 | | 17:00 | 23 | | 9 | | | | | | 32 | |
| 05:15 | 1 | | 2 | | | | | | 3 | | 17:15 | 20 | | 13 | | | | | | 33 | |
| 05:30 | 0 | | 4 | | | | | | 4 | | 17:30 | 13 | | 16 | | | | | | 29 | |
| 05:45 | 0 | 3 | 4 | 13 | | | | | 4 | 16 | 17:45 | 18 | 74 | 9 | 47 | | | | | 27 | 121 |
| 06:00 | 1 | | 6 | | | | | | 7 | | 18:00 | 13 | | 14 | | | | | | 27 | |
| 06:15 | 0 | | 5 | | | | | | 5 | | 18:15 | 10 | | 10 | | | | | | 20 | |
| 06:30 | 1 | | 7 | | | | | | 8 | | 18:30 | 12 | | 4 | | | | | | 16 | |
| 06:45 | 5 | 7 | 10 | 28 | | | | | 15 | 35 | 18:45 | 15 | 50 | 13 | 41 | | | | | 28 | 91 |
| 07:00 | 9 | | 7 | | | | | | 16 | | 19:00 | 12 | | 7 | | | | | | 19 | |
| 07:15 | 6 | | 25 | | | | | | 31 | | 19:15 | 11 | | 3 | | | | | | 14 | |
| 07:30 | 6 | | 22 | | | | | | 28 | | 19:30 | 10 | | 4 | | | | | | 14 | |
| 07:45 | 6 | 27 | 32 | 86 | | | | | 38 | 113 | 19:45 | 7 | 40 | 1 | 15 | | | | | 8 | 55 |
| 08:00 | 11 | | 21 | | | | | | 32 | | 20:00 | 5 | | 2 | | | | | | 7 | |
| 08:15 | 5 | | 7 | | | | | | 12 | | 20:15 | 7 | | 2 | | | | | | 9 | |
| 08:30 | 8 | | 15 | | | | | | 23 | | 20:30 | 3 | | 2 | | | | | | 5 | |
| 08:45 | 7 | 31 | 15 | 58 | | | | | 22 | 89 | 20:45 | 5 | 20 | 3 | 9 | | | | | 8 | 29 |
| 09:00 | 6 | | 15 | | | | | | 21 | | 21:00 | 5 | | 5 | | | | | | 10 | |
| 09:15 | 8 | | 14 | | | | | | 22 | | 21:15 | 9 | | 2 | | | | | | 11 | |
| 09:30 | 10 | | 10 | | | | | | 20 | | 21:30 | 2 | | 0 | | | | | | 2 | |
| 09:45 | 12 | 36 | 11 | 50 | | | | | 23 | 86 | 21:45 | 4 | 20 | 2 | 9 | | | | | 6 | 29 |
| 10:00 | 10 | | 21 | | | | | | 31 | | 22:00 | 4 | | 0 | | | | | | 4 | |
| 10:15 | 5 | | 8 | | | | | | 13 | | 22:15 | 2 | | 3 | | | | | | 5 | |
| 10:30 | 7 | | 17 | | | | | | 24 | | 22:30 | 3 | | 1 | | | | | | 4 | |
| 10:45 | 14 | 36 | 10 | 56 | | | | | 24 | 92 | 22:45 | 2 | 11 | 0 | 4 | | | | | 2 | 15 |
| 11:00 | 7 | | 12 | | | | | | 19 | | 23:00 | 0 | | 1 | | | | | | 1 | |
| 11:15 | 7 | | 20 | | | | | | 27 | | 23:15 | 2 | | 0 | | | | | | 2 | |
| 11:30 | 18 | | 14 | | | | | | 32 | | 23:30 | 0 | | 0 | | | | | | 0 | |
| 11:45 | 9 | 41 | 13 | 59 | | | | | 22 | 100 | 23:45 | 2 | 4 | 0 | 1 | | | | | 2 | 5 |
| TOTALS | | 189 | | 359 | | | | | | 548 | TOTALS | | 498 | | 354 | | | | | | 852 |
| SPLIT % | | 34.5% | | 65.5% | | | | | | 39.1% | SPLIT % | | 58.5% | | 41.5% | | | | | | 60.9% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 687 | 713 | 0 | 0 | 1,400 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | 11:30 | 07:15 | | | 07:15 | PM Peak Hour | 17:00 | 12:30 | | | 16:45 |
| AM Pk Volume | 48 | 100 | | | 129 | PM Pk Volume | 74 | 53 | | | 121 |
| Pk Hr Factor | 0.667 | 0.781 | | | 0.849 | Pk Hr Factor | 0.804 | 0.883 | | | 0.917 |
| 7 - 9 Volume | 58 | 144 | 0 | 0 | 202 | 4 - 6 Volume | 140 | 96 | 0 | 0 | 236 |
| 7 - 9 Peak Hour | 08:00 | 07:15 | | | 07:15 | 4 - 6 Peak Hour | 17:00 | 16:00 | | | 16:45 |
| 7 - 9 Pk Volume | 31 | 100 | 0 | 0 | 129 | 4 - 6 Pk Volume | 74 | 49 | 0 | 0 | 121 |
| Pk Hr Factor | 0.705 | 0.781 | 0.000 | 0.000 | 0.849 | Pk Hr Factor | 0.804 | 0.875 | 0.000 | 0.000 | 0.917 |

Prepared by NDS/ATD

# VOLUME

## Lone Star Rd W/O SR 49

**Day:** Saturday
**Date:** 6/10/2017

**City:** Auburn
**Project #:** CA17_7498_013

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 1,223 | 0 | 1,223 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 3 | | 0 | | 3 | | 12:00 | | | 13 | | 0 | | 13 | |
| 00:15 | | | 2 | | 0 | | 2 | | 12:15 | | | 11 | | 0 | | 11 | |
| 00:30 | | | 1 | | 0 | | 1 | | 12:30 | | | 17 | | 0 | | 17 | |
| 00:45 | | | 3 | 9 | 0 | | 3 | 9 | 12:45 | | | 19 | 60 | 0 | | 19 | 60 |
| 01:00 | | | 0 | | 0 | | 0 | | 13:00 | | | 20 | | 0 | | 20 | |
| 01:15 | | | 4 | | 0 | | 4 | | 13:15 | | | 18 | | 0 | | 18 | |
| 01:30 | | | 0 | | 0 | | 0 | | 13:30 | | | 19 | | 0 | | 19 | |
| 01:45 | | | 0 | 4 | 0 | | 0 | 4 | 13:45 | | | 22 | 79 | 0 | | 22 | 79 |
| 02:00 | | | 1 | | 0 | | 1 | | 14:00 | | | 16 | | 0 | | 16 | |
| 02:15 | | | 0 | | 0 | | 0 | | 14:15 | | | 21 | | 0 | | 21 | |
| 02:30 | | | 0 | | 0 | | 0 | | 14:30 | | | 21 | | 0 | | 21 | |
| 02:45 | | | 3 | 4 | 0 | | 3 | 4 | 14:45 | | | 19 | 77 | 0 | | 19 | 77 |
| 03:00 | | | 0 | | 0 | | 0 | | 15:00 | | | 17 | | 0 | | 17 | |
| 03:15 | | | 0 | | 0 | | 0 | | 15:15 | | | 19 | | 0 | | 19 | |
| 03:30 | | | 1 | | 0 | | 1 | | 15:30 | | | 28 | | 0 | | 28 | |
| 03:45 | | | 1 | 2 | 0 | | 1 | 2 | 15:45 | | | 29 | 93 | 0 | | 29 | 93 |
| 04:00 | | | 1 | | 0 | | 1 | | 16:00 | | | 24 | | 0 | | 24 | |
| 04:15 | | | 0 | | 0 | | 0 | | 16:15 | | | 38 | | 0 | | 38 | |
| 04:30 | | | 1 | | 0 | | 1 | | 16:30 | | | 33 | | 0 | | 33 | |
| 04:45 | | | 1 | 3 | 0 | | 1 | 3 | 16:45 | | | 32 | 127 | 0 | | 32 | 127 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 24 | | 0 | | 24 | |
| 05:15 | | | 2 | | 0 | | 2 | | 17:15 | | | 19 | | 0 | | 19 | |
| 05:30 | | | 2 | | 0 | | 2 | | 17:30 | | | 21 | | 0 | | 21 | |
| 05:45 | | | 7 | 12 | 0 | | 7 | 12 | 17:45 | | | 25 | 89 | 0 | | 25 | 89 |
| 06:00 | | | 7 | | 0 | | 7 | | 18:00 | | | 14 | | 0 | | 14 | |
| 06:15 | | | 4 | | 0 | | 4 | | 18:15 | | | 16 | | 0 | | 16 | |
| 06:30 | | | 3 | | 0 | | 3 | | 18:30 | | | 13 | | 0 | | 13 | |
| 06:45 | | | 19 | 33 | 0 | | 19 | 33 | 18:45 | | | 10 | 53 | 0 | | 10 | 53 |
| 07:00 | | | 13 | | 0 | | 13 | | 19:00 | | | 11 | | 0 | | 11 | |
| 07:15 | | | 18 | | 0 | | 18 | | 19:15 | | | 22 | | 0 | | 22 | |
| 07:30 | | | 19 | | 0 | | 19 | | 19:30 | | | 14 | | 0 | | 14 | |
| 07:45 | | | 14 | 64 | 0 | | 14 | 64 | 19:45 | | | 11 | 58 | 0 | | 11 | 58 |
| 08:00 | | | 17 | | 0 | | 17 | | 20:00 | | | 17 | | 0 | | 17 | |
| 08:15 | | | 25 | | 0 | | 25 | | 20:15 | | | 8 | | 0 | | 8 | |
| 08:30 | | | 20 | | 0 | | 20 | | 20:30 | | | 14 | | 0 | | 14 | |
| 08:45 | | | 10 | 72 | 0 | | 10 | 72 | 20:45 | | | 13 | 52 | 0 | | 13 | 52 |
| 09:00 | | | 24 | | 0 | | 24 | | 21:00 | | | 2 | | 0 | | 2 | |
| 09:15 | | | 11 | | 0 | | 11 | | 21:15 | | | 11 | | 0 | | 11 | |
| 09:30 | | | 20 | | 0 | | 20 | | 21:30 | | | 7 | | 0 | | 7 | |
| 09:45 | | | 15 | 70 | 0 | | 15 | 70 | 21:45 | | | 11 | 31 | 0 | | 11 | 31 |
| 10:00 | | | 24 | | 0 | | 24 | | 22:00 | | | 12 | | 0 | | 12 | |
| 10:15 | | | 12 | | 0 | | 12 | | 22:15 | | | 19 | | 0 | | 19 | |
| 10:30 | | | 21 | | 0 | | 21 | | 22:30 | | | 9 | | 0 | | 9 | |
| 10:45 | | | 21 | 78 | 0 | | 21 | 78 | 22:45 | | | 13 | 53 | 0 | | 13 | 53 |
| 11:00 | | | 18 | | 0 | | 18 | | 23:00 | | | 10 | | 0 | | 10 | |
| 11:15 | | | 21 | | 0 | | 21 | | 23:15 | | | 5 | | 0 | | 5 | |
| 11:30 | | | 21 | | 0 | | 21 | | 23:30 | | | 4 | | 0 | | 4 | |
| 11:45 | | | 17 | 77 | 0 | | 17 | 77 | 23:45 | | | 4 | 23 | 0 | | 4 | 23 |
| TOTALS | | | 428 | | | | | 428 | TOTALS | | | 795 | | | | | 795 |
| SPLIT % | | | 100.0% | | | | | 35.0% | SPLIT % | | | 100.0% | | | | | 65.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 1,223 | 0 | 1,223 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 10:30 | | 10:30 | PM Peak Hour | | | 16:00 | | 16:00 |
| AM Pk Volume | | | 81 | | 81 | PM Pk Volume | | | 127 | | 127 |
| Pk Hr Factor | | | 0.964 | | 0.964 | Pk Hr Factor | | | 0.836 | | 0.836 |
| 7 - 9 Volume | 0 | 0 | 136 | 0 | 136 | 4 - 6 Volume | 0 | 0 | 216 | 0 | 216 |
| 7 - 9 Peak Hour | | | 07:45 | | 07:45 | 4 - 6 Peak Hour | | | 16:00 | | 16:00 |
| 7 - 9 Pk Volume | 0 | 0 | 76 | 0 | 76 | 4 - 6 Pk Volume | 0 | 0 | 127 | 0 | 127 |
| Pk Hr Factor | 0.000 | 0.000 | 0.760 | 0.000 | 0.760 | Pk Hr Factor | 0.000 | 0.000 | 0.836 | 0.000 | 0.836 |

Prepared by NDS/ATD

# VOLUME

## Lone Star Rd W/O SR 49

**Day:** Tuesday
**Date:** 10/3/2017

**City:** Auburn
**Project #:** CA17_7775_013

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 648 | 680 | 1,328 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 11 | | 8 | | 19 | |
| 00:15 | | | 0 | | 0 | | 0 | | 12:15 | | | 10 | | 13 | | 23 | |
| 00:30 | | | 0 | | 1 | | 1 | | 12:30 | | | 14 | | 12 | | 26 | |
| 00:45 | | | 0 | | 0 | 1 | 0 | 1 | 12:45 | | | 6 | 41 | 5 | 38 | 11 | 79 |
| 01:00 | | | 0 | | 0 | | 0 | | 13:00 | | | 12 | | 12 | | 24 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 7 | | 17 | | 24 | |
| 01:30 | | | 0 | | 0 | | 0 | | 13:30 | | | 12 | | 14 | | 26 | |
| 01:45 | | | 0 | | 0 | | 0 | | 13:45 | | | 14 | 45 | 15 | 58 | 29 | 103 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 20 | | 10 | | 30 | |
| 02:15 | | | 0 | | 0 | | 0 | | 14:15 | | | 14 | | 10 | | 24 | |
| 02:30 | | | 1 | | 0 | | 1 | | 14:30 | | | 15 | | 8 | | 23 | |
| 02:45 | | | 0 | 1 | 0 | | 0 | 1 | 14:45 | | | 12 | 61 | 17 | 45 | 29 | 106 |
| 03:00 | | | 0 | | 0 | | 0 | | 15:00 | | | 21 | | 11 | | 32 | |
| 03:15 | | | 1 | | 0 | | 1 | | 15:15 | | | 10 | | 13 | | 23 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 20 | | 16 | | 36 | |
| 03:45 | | | 1 | 2 | 0 | | 1 | 2 | 15:45 | | | 16 | 67 | 12 | 52 | 28 | 119 |
| 04:00 | | | 1 | | 0 | | 1 | | 16:00 | | | 11 | | 11 | | 22 | |
| 04:15 | | | 1 | | 1 | | 2 | | 16:15 | | | 11 | | 6 | | 17 | |
| 04:30 | | | 1 | | 0 | | 1 | | 16:30 | | | 12 | | 10 | | 22 | |
| 04:45 | | | 1 | 4 | 0 | 1 | 1 | 5 | 16:45 | | | 13 | 47 | 10 | 37 | 23 | 84 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 11 | | 15 | | 26 | |
| 05:15 | | | 4 | | 0 | | 4 | | 17:15 | | | 10 | | 14 | | 24 | |
| 05:30 | | | 4 | | 4 | | 8 | | 17:30 | | | 12 | | 12 | | 24 | |
| 05:45 | | | 3 | 12 | 6 | 10 | 9 | 22 | 17:45 | | | 14 | 47 | 10 | 51 | 24 | 98 |
| 06:00 | | | 7 | | 5 | | 12 | | 18:00 | | | 10 | | 14 | | 24 | |
| 06:15 | | | 6 | | 6 | | 12 | | 18:15 | | | 8 | | 16 | | 24 | |
| 06:30 | | | 6 | | 5 | | 11 | | 18:30 | | | 8 | | 11 | | 19 | |
| 06:45 | | | 6 | 25 | 10 | 26 | 16 | 51 | 18:45 | | | 11 | 37 | 8 | 49 | 19 | 86 |
| 07:00 | | | 15 | | 8 | | 23 | | 19:00 | | | 5 | | 5 | | 10 | |
| 07:15 | | | 14 | | 16 | | 30 | | 19:15 | | | 6 | | 10 | | 16 | |
| 07:30 | | | 15 | | 11 | | 26 | | 19:30 | | | 5 | | 6 | | 11 | |
| 07:45 | | | 13 | 57 | 15 | 50 | 28 | 107 | 19:45 | | | 6 | 22 | 5 | 26 | 11 | 48 |
| 08:00 | | | 15 | | 12 | | 27 | | 20:00 | | | 3 | | 7 | | 10 | |
| 08:15 | | | 16 | | 7 | | 23 | | 20:15 | | | 1 | | 9 | | 10 | |
| 08:30 | | | 11 | | 9 | | 20 | | 20:30 | | | 4 | | 4 | | 8 | |
| 08:45 | | | 13 | 55 | 12 | 40 | 25 | 95 | 20:45 | | | 1 | 9 | 5 | 25 | 6 | 34 |
| 09:00 | | | 10 | | 14 | | 24 | | 21:00 | | | 0 | | 3 | | 3 | |
| 09:15 | | | 9 | | 14 | | 23 | | 21:15 | | | 0 | | 2 | | 2 | |
| 09:30 | | | 6 | | 13 | | 19 | | 21:30 | | | 2 | | 3 | | 5 | |
| 09:45 | | | 10 | 35 | 14 | 55 | 24 | 90 | 21:45 | | | 1 | 3 | 1 | 9 | 2 | 12 |
| 10:00 | | | 8 | | 12 | | 20 | | 22:00 | | | 0 | | 3 | | 3 | |
| 10:15 | | | 9 | | 11 | | 20 | | 22:15 | | | 0 | | 0 | | 0 | |
| 10:30 | | | 19 | | 16 | | 35 | | 22:30 | | | 0 | | 2 | | 2 | |
| 10:45 | | | 9 | 45 | 9 | 48 | 18 | 93 | 22:45 | | | 1 | 1 | 2 | 7 | 3 | 8 |
| 11:00 | | | 12 | | 14 | | 26 | | 23:00 | | | 0 | | 3 | | 3 | |
| 11:15 | | | 9 | | 15 | | 24 | | 23:15 | | | 0 | | 0 | | 0 | |
| 11:30 | | | 7 | | 7 | | 14 | | 23:30 | | | 0 | | 0 | | 0 | |
| 11:45 | | | 4 | 32 | 13 | 49 | 17 | 81 | 23:45 | | | 0 | | 0 | 3 | 0 | 3 |
| TOTALS | | | | 268 | | 280 | | 548 | TOTALS | | | | 380 | | 400 | | 780 |
| SPLIT % | | | | 48.9% | | 51.1% | | 41.3% | SPLIT % | | | | 48.7% | | 51.3% | | 58.7% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 648 | 680 | 1,328 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 07:30 | 09:00 | 07:15 | PM Peak Hour | | | 15:00 | 13:00 | 14:45 |
| AM Pk Volume | | | 59 | 55 | 111 | PM Pk Volume | | | 67 | 58 | 120 |
| Pk Hr Factor | | | 0.922 | 0.982 | 0.925 | Pk Hr Factor | | | 0.798 | 0.853 | 0.833 |
| 7 - 9 Volume | 0 | 0 | 112 | 90 | 202 | 4 - 6 Volume | 0 | 0 | 94 | 88 | 182 |
| 7 - 9 Peak Hour | | | 07:30 | 07:15 | 07:15 | 4 - 6 Peak Hour | | | 16:00 | 16:45 | 17:00 |
| 7 - 9 Pk Volume | 0 | 0 | 59 | 54 | 111 | 4 - 6 Pk Volume | 0 | 0 | 47 | 51 | 98 |
| Pk Hr Factor | 0.000 | 0.000 | 0.922 | 0.844 | 0.925 | Pk Hr Factor | 0.000 | 0.000 | 0.904 | 0.850 | 0.942 |

Prepared by NDS/ATD

# VOLUME

## Cramer Road Bet. Bell Rd & SR 49

**Day:** Saturday
**Date:** 6/10/2017

**City:** Auburn
**Project #:** CA17_7498_030

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 267 | 282 | 549 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 6 | | 2 | | 8 | |
| 00:15 | | | 1 | | 3 | | 4 | | 12:15 | | | 3 | | 6 | | 9 | |
| 00:30 | | | 1 | | 1 | | 2 | | 12:30 | | | 8 | | 8 | | 16 | |
| 00:45 | | | 0 | 2 | 0 | 4 | 0 | 6 | 12:45 | | | 2 | 19 | 7 | 23 | 9 | 42 |
| 01:00 | | | 0 | | 0 | | 0 | | 13:00 | | | 4 | | 6 | | 10 | |
| 01:15 | | | 1 | | 1 | | 2 | | 13:15 | | | 7 | | 6 | | 13 | |
| 01:30 | | | 0 | | 0 | | 0 | | 13:30 | | | 2 | | 6 | | 8 | |
| 01:45 | | | 0 | 1 | 0 | 1 | 0 | 2 | 13:45 | | | 3 | 16 | 6 | 24 | 9 | 40 |
| 02:00 | | | 2 | | 0 | | 2 | | 14:00 | | | 6 | | 7 | | 13 | |
| 02:15 | | | 0 | | 1 | | 1 | | 14:15 | | | 7 | | 7 | | 14 | |
| 02:30 | | | 1 | | 0 | | 1 | | 14:30 | | | 5 | | 6 | | 11 | |
| 02:45 | | | 0 | 3 | 0 | 1 | 0 | 4 | 14:45 | | | 6 | 24 | 7 | 27 | 13 | 51 |
| 03:00 | | | 0 | | 2 | | 2 | | 15:00 | | | 12 | | 6 | | 18 | |
| 03:15 | | | 0 | | 0 | | 0 | | 15:15 | | | 11 | | 8 | | 19 | |
| 03:30 | | | 0 | | 1 | | 1 | | 15:30 | | | 5 | | 11 | | 16 | |
| 03:45 | | | 1 | 1 | 0 | 3 | 1 | 4 | 15:45 | | | 2 | 30 | 11 | 36 | 13 | 66 |
| 04:00 | | | 2 | | 0 | | 2 | | 16:00 | | | 4 | | 10 | | 14 | |
| 04:15 | | | 0 | | 1 | | 1 | | 16:15 | | | 4 | | 6 | | 10 | |
| 04:30 | | | 1 | | 0 | | 1 | | 16:30 | | | 6 | | 2 | | 8 | |
| 04:45 | | | 0 | 3 | 0 | 1 | 0 | 4 | 16:45 | | | 6 | 20 | 7 | 25 | 13 | 45 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 2 | | 5 | | 7 | |
| 05:15 | | | 1 | | 1 | | 2 | | 17:15 | | | 5 | | 2 | | 7 | |
| 05:30 | | | 2 | | 1 | | 3 | | 17:30 | | | 3 | | 3 | | 6 | |
| 05:45 | | | 0 | 4 | 0 | 2 | 0 | 6 | 17:45 | | | 1 | 11 | 6 | 16 | 7 | 27 |
| 06:00 | | | 1 | | 0 | | 1 | | 18:00 | | | 2 | | 2 | | 4 | |
| 06:15 | | | 3 | | 1 | | 4 | | 18:15 | | | 1 | | 2 | | 3 | |
| 06:30 | | | 0 | | 2 | | 2 | | 18:30 | | | 1 | | 6 | | 7 | |
| 06:45 | | | 2 | 6 | 0 | 3 | 2 | 9 | 18:45 | | | 1 | 5 | 1 | 11 | 2 | 16 |
| 07:00 | | | 5 | | 1 | | 6 | | 19:00 | | | 3 | | 1 | | 4 | |
| 07:15 | | | 3 | | 3 | | 6 | | 19:15 | | | 2 | | 2 | | 4 | |
| 07:30 | | | 2 | | 3 | | 5 | | 19:30 | | | 1 | | 1 | | 2 | |
| 07:45 | | | 5 | 15 | 2 | 9 | 7 | 24 | 19:45 | | | 3 | 9 | 2 | 6 | 5 | 15 |
| 08:00 | | | 3 | | 3 | | 6 | | 20:00 | | | 1 | | 5 | | 6 | |
| 08:15 | | | 3 | | 2 | | 5 | | 20:15 | | | 2 | | 1 | | 3 | |
| 08:30 | | | 8 | | 4 | | 12 | | 20:30 | | | 4 | | 3 | | 7 | |
| 08:45 | | | 1 | 15 | 4 | 13 | 5 | 28 | 20:45 | | | 5 | 12 | 1 | 10 | 6 | 22 |
| 09:00 | | | 6 | | 2 | | 8 | | 21:00 | | | 3 | | 2 | | 5 | |
| 09:15 | | | 4 | | 4 | | 8 | | 21:15 | | | 1 | | 1 | | 2 | |
| 09:30 | | | 5 | | 5 | | 10 | | 21:30 | | | 2 | | 3 | | 5 | |
| 09:45 | | | 3 | 18 | 4 | 15 | 7 | 33 | 21:45 | | | 2 | 8 | 3 | 9 | 5 | 17 |
| 10:00 | | | 5 | | 8 | | 13 | | 22:00 | | | 4 | | 2 | | 6 | |
| 10:15 | | | 2 | | 2 | | 4 | | 22:15 | | | 2 | | 2 | | 4 | |
| 10:30 | | | 4 | | 4 | | 8 | | 22:30 | | | 1 | | 3 | | 4 | |
| 10:45 | | | 4 | 15 | 4 | 18 | 8 | 33 | 22:45 | | | 2 | 9 | 1 | 8 | 3 | 17 |
| 11:00 | | | 2 | | 2 | | 4 | | 23:00 | | | 2 | | 1 | | 3 | |
| 11:15 | | | 6 | | 4 | | 10 | | 23:15 | | | 1 | | 2 | | 3 | |
| 11:30 | | | 4 | | 2 | | 6 | | 23:30 | | | 1 | | 1 | | 2 | |
| 11:45 | | | 5 | 17 | 4 | 12 | 9 | 29 | 23:45 | | | 0 | 4 | 1 | 5 | 1 | 9 |
| TOTALS | | | | 100 | | 82 | | 182 | TOTALS | | | | 167 | | 200 | | 367 |
| SPLIT % | | | | 54.9% | | 45.1% | | 33.2% | SPLIT % | | | | 45.5% | | 54.5% | | 66.8% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 267 | 282 | 549 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 11:45 | 09:15 | 11:45 | PM Peak Hour | | | 14:30 | 15:15 | 14:45 |
| AM Pk Volume | | | 22 | 21 | 42 | PM Pk Volume | | | 34 | 40 | 66 |
| Pk Hr Factor | | | 0.688 | 0.656 | 0.656 | Pk Hr Factor | | | 0.708 | 0.909 | 0.868 |
| 7 - 9 Volume | 0 | 0 | 30 | 22 | 52 | 4 - 6 Volume | 0 | 0 | 31 | 41 | 72 |
| 7 - 9 Peak Hour | | | 07:45 | 08:00 | 07:45 | 4 - 6 Peak Hour | | | 16:00 | 16:00 | 16:00 |
| 7 - 9 Pk Volume | 0 | 0 | 19 | 13 | 30 | 4 - 6 Pk Volume | 0 | 0 | 20 | 25 | 45 |
| Pk Hr Factor | 0.000 | 0.000 | 0.594 | 0.813 | 0.625 | Pk Hr Factor | 0.000 | 0.000 | 0.833 | 0.625 | 0.804 |

Prepared by NDS/ATD

# VOLUME

## Cramer Rd Bet. Bell Rd & SR 49

**Day:** Tuesday
**Date:** 10/3/2017

**City:** Auburn
**Project #:** CA17_7775_030

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 280 | 278 | 558 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 5 | | 6 | | 11 | |
| 00:15 | | | 0 | | 0 | | 0 | | 12:15 | | | 3 | | 6 | | 9 | |
| 00:30 | | | 0 | | 0 | | 0 | | 12:30 | | | 5 | | 7 | | 12 | |
| 00:45 | | | 0 | | 0 | | 0 | | 12:45 | | | 1 | 14 | 3 | 22 | 4 | 36 |
| 01:00 | | | 0 | | 1 | | 1 | | 13:00 | | | 2 | | 5 | | 7 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 5 | | 3 | | 8 | |
| 01:30 | | | 0 | | 1 | | 1 | | 13:30 | | | 8 | | 4 | | 12 | |
| 01:45 | | | 0 | | 0 | 2 | 0 | 2 | 13:45 | | | 6 | 21 | 4 | 16 | 10 | 37 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 5 | | 4 | | 9 | |
| 02:15 | | | 0 | | 1 | | 1 | | 14:15 | | | 2 | | 1 | | 3 | |
| 02:30 | | | 0 | | 1 | | 1 | | 14:30 | | | 3 | | 3 | | 6 | |
| 02:45 | | | 1 | 1 | 1 | 3 | 2 | 4 | 14:45 | | | 4 | 14 | 3 | 11 | 7 | 25 |
| 03:00 | | | 0 | | 0 | | 0 | | 15:00 | | | 8 | | 7 | | 15 | |
| 03:15 | | | 0 | | 0 | | 0 | | 15:15 | | | 10 | | 2 | | 12 | |
| 03:30 | | | 1 | | 1 | | 2 | | 15:30 | | | 7 | | 5 | | 12 | |
| 03:45 | | | 0 | 1 | 0 | 1 | 0 | 2 | 15:45 | | | 5 | 30 | 9 | 23 | 14 | 53 |
| 04:00 | | | 1 | | 0 | | 1 | | 16:00 | | | 8 | | 8 | | 16 | |
| 04:15 | | | 0 | | 0 | | 0 | | 16:15 | | | 7 | | 2 | | 9 | |
| 04:30 | | | 1 | | 0 | | 1 | | 16:30 | | | 5 | | 4 | | 9 | |
| 04:45 | | | 3 | 5 | 1 | 1 | 4 | 6 | 16:45 | | | 3 | 23 | 3 | 17 | 6 | 40 |
| 05:00 | | | 3 | | 0 | | 3 | | 17:00 | | | 3 | | 10 | | 13 | |
| 05:15 | | | 2 | | 1 | | 3 | | 17:15 | | | 8 | | 8 | | 16 | |
| 05:30 | | | 3 | | 0 | | 3 | | 17:30 | | | 7 | | 9 | | 16 | |
| 05:45 | | | 3 | 11 | 0 | 1 | 3 | 12 | 17:45 | | | 2 | 20 | 9 | 36 | 11 | 56 |
| 06:00 | | | 6 | | 1 | | 7 | | 18:00 | | | 1 | | 7 | | 8 | |
| 06:15 | | | 4 | | 1 | | 5 | | 18:15 | | | 4 | | 6 | | 10 | |
| 06:30 | | | 4 | | 3 | | 7 | | 18:30 | | | 2 | | 5 | | 7 | |
| 06:45 | | | 1 | 15 | 2 | 7 | 3 | 22 | 18:45 | | | 5 | 12 | 5 | 23 | 10 | 35 |
| 07:00 | | | 3 | | 6 | | 9 | | 19:00 | | | 3 | | 7 | | 10 | |
| 07:15 | | | 4 | | 3 | | 7 | | 19:15 | | | 1 | | 6 | | 7 | |
| 07:30 | | | 8 | | 1 | | 9 | | 19:30 | | | 4 | | 7 | | 11 | |
| 07:45 | | | 0 | 15 | 3 | 13 | 3 | 28 | 19:45 | | | 3 | 11 | 2 | 22 | 5 | 33 |
| 08:00 | | | 3 | | 4 | | 7 | | 20:00 | | | 1 | | 3 | | 4 | |
| 08:15 | | | 7 | | 3 | | 10 | | 20:15 | | | 0 | | 5 | | 5 | |
| 08:30 | | | 6 | | 2 | | 8 | | 20:30 | | | 0 | | 3 | | 3 | |
| 08:45 | | | 7 | 23 | 1 | 10 | 8 | 33 | 20:45 | | | 1 | 2 | 4 | 15 | 5 | 17 |
| 09:00 | | | 7 | | 8 | | 15 | | 21:00 | | | 1 | | 1 | | 2 | |
| 09:15 | | | 3 | | 2 | | 5 | | 21:15 | | | 0 | | 1 | | 1 | |
| 09:30 | | | 9 | | 4 | | 13 | | 21:30 | | | 3 | | 2 | | 5 | |
| 09:45 | | | 7 | 26 | 2 | 16 | 9 | 42 | 21:45 | | | 2 | 6 | 1 | 5 | 3 | 11 |
| 10:00 | | | 5 | | 1 | | 6 | | 22:00 | | | 0 | | 1 | | 1 | |
| 10:15 | | | 2 | | 4 | | 6 | | 22:15 | | | 0 | | 2 | | 2 | |
| 10:30 | | | 1 | | 3 | | 4 | | 22:30 | | | 0 | | 1 | | 1 | |
| 10:45 | | | 2 | 10 | 4 | 12 | 6 | 22 | 22:45 | | | 1 | 1 | 0 | 4 | 1 | 5 |
| 11:00 | | | 3 | | 3 | | 6 | | 23:00 | | | 1 | | 1 | | 2 | |
| 11:15 | | | 4 | | 3 | | 7 | | 23:15 | | | 1 | | 1 | | 2 | |
| 11:30 | | | 6 | | 7 | | 13 | | 23:30 | | | 0 | | 1 | | 1 | |
| 11:45 | | | 4 | 17 | 2 | 15 | 6 | 32 | 23:45 | | | 0 | 2 | 0 | 3 | 0 | 5 |
| TOTALS | | | | 124 | | 81 | | 205 | TOTALS | | | | 156 | | 197 | | 353 |
| SPLIT % | | | | 60.5% | | 39.5% | | 36.7% | SPLIT % | | | | 44.2% | | 55.8% | | 63.3% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 280 | 278 | 558 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 08:15 | 11:30 | 09:00 | PM Peak Hour | | | 15:00 | 17:00 | 17:00 |
| AM Pk Volume | | | 27 | 21 | 42 | PM Pk Volume | | | 30 | 36 | 56 |
| Pk Hr Factor | | | 0.964 | 0.750 | 0.700 | Pk Hr Factor | | | 0.750 | 0.900 | 0.875 |
| 7 - 9 Volume | 0 | 0 | 38 | 23 | 61 | 4 - 6 Volume | 0 | 0 | 43 | 53 | 96 |
| 7 - 9 Peak Hour | | | 08:00 | 07:00 | 08:00 | 4 - 6 Peak Hour | | | 16:00 | 17:00 | 17:00 |
| 7 - 9 Pk Volume | 0 | 0 | 23 | 13 | 33 | 4 - 6 Pk Volume | 0 | 0 | 23 | 36 | 56 |
| Pk Hr Factor | 0.000 | 0.000 | 0.821 | 0.542 | 0.825 | Pk Hr Factor | 0.000 | 0.000 | 0.719 | 0.900 | 0.875 |

Prepared by NDS/ATD

# VOLUME

## Auburn Valley Rd Bet. Bell Rd & View Ridge Dr

**Day:** Saturday
**Date:** 10/8/2016

**City:** Auburn
**Project #:** CA16_7715_013

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 451 | 433 | 884 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 1 | | 1 | | 12:00 | | | 4 | | 7 | | 11 | |
| 00:15 | | | 2 | | 1 | | 3 | | 12:15 | | | 6 | | 7 | | 13 | |
| 00:30 | | | 2 | | 1 | | 3 | | 12:30 | | | 15 | | 6 | | 21 | |
| 00:45 | | | 0 | 4 | 0 | 3 | 0 | 7 | 12:45 | | | 10 | 35 | 6 | 26 | 16 | 61 |
| 01:00 | | | 0 | | 0 | | 0 | | 13:00 | | | 3 | | 0 | | 3 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 8 | | 14 | | 22 | |
| 01:30 | | | 0 | | 1 | | 1 | | 13:30 | | | 10 | | 11 | | 21 | |
| 01:45 | | | 1 | 1 | 0 | 1 | 1 | 2 | 13:45 | | | 4 | 25 | 9 | 34 | 13 | 59 |
| 02:00 | | | 0 | | 2 | | 2 | | 14:00 | | | 8 | | 8 | | 16 | |
| 02:15 | | | 1 | | 0 | | 1 | | 14:15 | | | 7 | | 7 | | 14 | |
| 02:30 | | | 1 | | 0 | | 1 | | 14:30 | | | 3 | | 7 | | 10 | |
| 02:45 | | | 0 | 2 | 0 | 2 | 0 | 4 | 14:45 | | | 7 | 25 | 11 | 33 | 18 | 58 |
| 03:00 | | | 1 | | 0 | | 1 | | 15:00 | | | 7 | | 6 | | 13 | |
| 03:15 | | | 1 | | 1 | | 2 | | 15:15 | | | 19 | | 4 | | 23 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 19 | | 8 | | 27 | |
| 03:45 | | | 0 | 2 | 0 | 1 | 0 | 3 | 15:45 | | | 14 | 59 | 9 | 27 | 23 | 86 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 4 | | 11 | | 15 | |
| 04:15 | | | 0 | | 1 | | 1 | | 16:15 | | | 8 | | 10 | | 18 | |
| 04:30 | | | 0 | | 0 | | 0 | | 16:30 | | | 7 | | 12 | | 19 | |
| 04:45 | | | 3 | 3 | 2 | 3 | 5 | 6 | 16:45 | | | 11 | 30 | 19 | 52 | 30 | 82 |
| 05:00 | | | 0 | | 1 | | 1 | | 17:00 | | | 13 | | 6 | | 19 | |
| 05:15 | | | 0 | | 0 | | 0 | | 17:15 | | | 4 | | 9 | | 13 | |
| 05:30 | | | 0 | | 1 | | 1 | | 17:30 | | | 3 | | 4 | | 7 | |
| 05:45 | | | 1 | 1 | 5 | 7 | 6 | 8 | 17:45 | | | 12 | 32 | 4 | 23 | 16 | 55 |
| 06:00 | | | 1 | | 1 | | 2 | | 18:00 | | | 5 | | 10 | | 15 | |
| 06:15 | | | 2 | | 0 | | 2 | | 18:15 | | | 11 | | 8 | | 19 | |
| 06:30 | | | 1 | | 3 | | 4 | | 18:30 | | | 6 | | 1 | | 7 | |
| 06:45 | | | 4 | 8 | 3 | 7 | 7 | 15 | 18:45 | | | 8 | 30 | 2 | 21 | 10 | 51 |
| 07:00 | | | 2 | | 8 | | 10 | | 19:00 | | | 7 | | 4 | | 11 | |
| 07:15 | | | 2 | | 14 | | 16 | | 19:15 | | | 4 | | 0 | | 4 | |
| 07:30 | | | 8 | | 19 | | 27 | | 19:30 | | | 1 | | 4 | | 5 | |
| 07:45 | | | 3 | 15 | 18 | 59 | 21 | 74 | 19:45 | | | 7 | 19 | 6 | 14 | 13 | 33 |
| 08:00 | | | 4 | | 5 | | 9 | | 20:00 | | | 8 | | 5 | | 13 | |
| 08:15 | | | 4 | | 2 | | 6 | | 20:15 | | | 4 | | 4 | | 8 | |
| 08:30 | | | 8 | | 4 | | 12 | | 20:30 | | | 5 | | 3 | | 8 | |
| 08:45 | | | 7 | 23 | 1 | 12 | 8 | 35 | 20:45 | | | 4 | 21 | 3 | 15 | 7 | 36 |
| 09:00 | | | 7 | | 7 | | 14 | | 21:00 | | | 2 | | 0 | | 2 | |
| 09:15 | | | 7 | | 5 | | 12 | | 21:15 | | | 4 | | 2 | | 6 | |
| 09:30 | | | 5 | | 4 | | 9 | | 21:30 | | | 8 | | 6 | | 14 | |
| 09:45 | | | 4 | 23 | 4 | 20 | 8 | 43 | 21:45 | | | 6 | 20 | 2 | 10 | 8 | 30 |
| 10:00 | | | 5 | | 1 | | 6 | | 22:00 | | | 2 | | 3 | | 5 | |
| 10:15 | | | 8 | | 4 | | 12 | | 22:15 | | | 6 | | 3 | | 9 | |
| 10:30 | | | 10 | | 4 | | 14 | | 22:30 | | | 2 | | 1 | | 3 | |
| 10:45 | | | 5 | 28 | 7 | 16 | 12 | 44 | 22:45 | | | 1 | 11 | 0 | 7 | 1 | 18 |
| 11:00 | | | 7 | | 8 | | 15 | | 23:00 | | | 2 | | 1 | | 3 | |
| 11:15 | | | 5 | | 8 | | 13 | | 23:15 | | | 0 | | 1 | | 1 | |
| 11:30 | | | 9 | | 7 | | 16 | | 23:30 | | | 1 | | 1 | | 2 | |
| 11:45 | | | 10 | 31 | 14 | 37 | 24 | 68 | 23:45 | | | 0 | 3 | 0 | 3 | 0 | 6 |
| TOTALS | | | | 141 | | 168 | | 309 | TOTALS | | | | 310 | | 265 | | 575 |
| SPLIT % | | | | 45.6% | | 54.4% | | 35.0% | SPLIT % | | | | 53.9% | | 46.1% | | 65.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 451 | 433 | 884 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 11:45 | 07:00 | 07:00 | PM Peak Hour | | | 15:00 | 16:00 | 15:15 |
| AM Pk Volume | | | 35 | 59 | 74 | PM Pk Volume | | | 59 | 52 | 88 |
| Pk Hr Factor | | | 0.583 | 0.776 | 0.685 | Pk Hr Factor | | | 0.776 | 0.684 | 0.815 |
| 7 - 9 Volume | 0 | 0 | 38 | 71 | 109 | 4 - 6 Volume | 0 | 0 | 62 | 75 | 137 |
| 7 - 9 Peak Hour | | | 08:00 | 07:00 | 07:00 | 4 - 6 Peak Hour | | | 16:15 | 16:00 | 16:15 |
| 7 - 9 Pk Volume | 0 | 0 | 23 | 59 | 74 | 4 - 6 Pk Volume | 0 | 0 | 39 | 52 | 86 |
| Pk Hr Factor | 0.000 | 0.000 | 0.719 | 0.776 | 0.685 | Pk Hr Factor | 0.000 | 0.000 | 0.750 | 0.684 | 0.717 |

Prepared by NDS/ATD

# VOLUME

## Auburn Valley Rd Bet. View Ridge Dr & Bell Rd

**Day:** Friday
**Date:** 12/7/2018

**City:** Auburn
**Project #:** CA18_7414_002

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 461 | 474 | 935 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 6 | | 7 | | 13 | |
| 00:15 | | | 0 | | 0 | | 0 | | 12:15 | | | 6 | | 10 | | 16 | |
| 00:30 | | | 0 | | 1 | | 1 | | 12:30 | | | 13 | | 8 | | 21 | |
| 00:45 | | | 0 | | 2 | 3 | 2 | 3 | 12:45 | | | 9 | 34 | 3 | 28 | 12 | 62 |
| 01:00 | | | 1 | | 0 | | 1 | | 13:00 | | | 8 | | 6 | | 14 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 6 | | 8 | | 14 | |
| 01:30 | | | 0 | | 0 | | 0 | | 13:30 | | | 10 | | 6 | | 16 | |
| 01:45 | | | 0 | 1 | 0 | | 0 | 1 | 13:45 | | | 6 | 30 | 9 | 29 | 15 | 59 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 7 | | 6 | | 13 | |
| 02:15 | | | 0 | | 0 | | 0 | | 14:15 | | | 9 | | 9 | | 18 | |
| 02:30 | | | 0 | | 1 | | 1 | | 14:30 | | | 16 | | 6 | | 22 | |
| 02:45 | | | 0 | | 1 | 2 | 1 | 2 | 14:45 | | | 14 | 46 | 9 | 30 | 23 | 76 |
| 03:00 | | | 0 | | 1 | | 1 | | 15:00 | | | 17 | | 7 | | 24 | |
| 03:15 | | | 0 | | 0 | | 0 | | 15:15 | | | 17 | | 15 | | 32 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 8 | | 4 | | 12 | |
| 03:45 | | | 2 | 2 | 0 | 1 | 2 | 3 | 15:45 | | | 11 | 53 | 7 | 33 | 18 | 86 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 10 | | 13 | | 23 | |
| 04:15 | | | 0 | | 0 | | 0 | | 16:15 | | | 21 | | 6 | | 27 | |
| 04:30 | | | 0 | | 0 | | 0 | | 16:30 | | | 8 | | 11 | | 19 | |
| 04:45 | | | 1 | 1 | 1 | 1 | 2 | 2 | 16:45 | | | 10 | 49 | 10 | 40 | 20 | 89 |
| 05:00 | | | 1 | | 0 | | 1 | | 17:00 | | | 7 | | 4 | | 11 | |
| 05:15 | | | 1 | | 1 | | 2 | | 17:15 | | | 5 | | 7 | | 12 | |
| 05:30 | | | 0 | | 1 | | 1 | | 17:30 | | | 6 | | 6 | | 12 | |
| 05:45 | | | 4 | 6 | 6 | 8 | 10 | 14 | 17:45 | | | 4 | 22 | 3 | 20 | 7 | 42 |
| 06:00 | | | 1 | | 1 | | 2 | | 18:00 | | | 4 | | 9 | | 13 | |
| 06:15 | | | 4 | | 1 | | 5 | | 18:15 | | | 2 | | 7 | | 9 | |
| 06:30 | | | 2 | | 2 | | 4 | | 18:30 | | | 2 | | 9 | | 11 | |
| 06:45 | | | 4 | 11 | 0 | 4 | 4 | 15 | 18:45 | | | 5 | 13 | 3 | 28 | 8 | 41 |
| 07:00 | | | 5 | | 2 | | 7 | | 19:00 | | | 1 | | 2 | | 3 | |
| 07:15 | | | 7 | | 5 | | 12 | | 19:15 | | | 3 | | 5 | | 8 | |
| 07:30 | | | 11 | | 6 | | 17 | | 19:30 | | | 0 | | 4 | | 4 | |
| 07:45 | | | 11 | 34 | 11 | 24 | 22 | 58 | 19:45 | | | 1 | 5 | 4 | 15 | 5 | 20 |
| 08:00 | | | 11 | | 17 | | 28 | | 20:00 | | | 0 | | 6 | | 6 | |
| 08:15 | | | 9 | | 8 | | 17 | | 20:15 | | | 1 | | 2 | | 3 | |
| 08:30 | | | 11 | | 14 | | 25 | | 20:30 | | | 1 | | 5 | | 6 | |
| 08:45 | | | 6 | 37 | 8 | 47 | 14 | 84 | 20:45 | | | 1 | 3 | 3 | 16 | 4 | 19 |
| 09:00 | | | 11 | | 14 | | 25 | | 21:00 | | | 2 | | 3 | | 5 | |
| 09:15 | | | 7 | | 9 | | 16 | | 21:15 | | | 2 | | 0 | | 2 | |
| 09:30 | | | 6 | | 14 | | 20 | | 21:30 | | | 0 | | 1 | | 1 | |
| 09:45 | | | 9 | 33 | 12 | 49 | 21 | 82 | 21:45 | | | 1 | 5 | 3 | 7 | 4 | 12 |
| 10:00 | | | 10 | | 10 | | 20 | | 22:00 | | | 1 | | 4 | | 5 | |
| 10:15 | | | 7 | | 14 | | 21 | | 22:15 | | | 0 | | 0 | | 0 | |
| 10:30 | | | 8 | | 12 | | 20 | | 22:30 | | | 1 | | 4 | | 5 | |
| 10:45 | | | 5 | 30 | 9 | 45 | 14 | 75 | 22:45 | | | 2 | 4 | 2 | 10 | 4 | 14 |
| 11:00 | | | 4 | | 6 | | 10 | | 23:00 | | | 0 | | 0 | | 0 | |
| 11:15 | | | 11 | | 7 | | 18 | | 23:15 | | | 0 | | 0 | | 0 | |
| 11:30 | | | 13 | | 13 | | 26 | | 23:30 | | | 0 | | 2 | | 2 | |
| 11:45 | | | 12 | 40 | 6 | 32 | 18 | 72 | 23:45 | | | 2 | 2 | 0 | 2 | 2 | 4 |
| TOTALS | | | | 195 | | 216 | | 411 | TOTALS | | | | 266 | | 258 | | 524 |
| SPLIT % | | | | 47.4% | | 52.6% | | 44.0% | SPLIT % | | | | 50.8% | | 49.2% | | 56.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 461 | 474 | 935 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 07:30 | 07:45 | 07:45 | PM Peak Hour | | | 14:30 | 16:00 | 14:30 |
| AM Pk Volume | | | 42 | 50 | 92 | PM Pk Volume | | | 64 | 40 | 101 |
| Pk Hr Factor | | | 0.955 | 0.735 | 0.821 | Pk Hr Factor | | | 0.941 | 0.769 | 0.789 |
| 7 - 9 Volume | 0 | 0 | 71 | 71 | 142 | 4 - 6 Volume | 0 | 0 | 71 | 60 | 131 |
| 7 - 9 Peak Hour | | | 07:30 | 07:45 | 07:45 | 4 - 6 Peak Hour | | | 16:00 | 16:00 | 16:00 |
| 7 - 9 Pk Volume | 0 | 0 | 42 | 50 | 92 | 4 - 6 Pk Volume | 0 | 0 | 49 | 40 | 89 |
| Pk Hr Factor | 0.000 | 0.000 | 0.955 | 0.735 | 0.821 | Pk Hr Factor | 0.000 | 0.000 | 0.583 | 0.769 | 0.824 |

Prepared by NDS/ATD

# VOLUME

## Auburn Valley Rd Bet. Fairway Ct & Curtola Ranch Rd

**Day:** Saturday
**Date:** 10/8/2016

**City:** Auburn
**Project #:** CA16_7715_014

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 161 | 238 | 399 |

| AM Period | NB | SB | EB | | WB | | TOTAL | | PM Period | NB | SB | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | 0 | | 0 | | 0 | | 12:00 | | | 0 | | 3 | | 3 | |
| 00:15 | | | 1 | | 0 | | 1 | | 12:15 | | | 2 | | 8 | | 10 | |
| 00:30 | | | 2 | | 0 | | 2 | | 12:30 | | | 5 | | 4 | | 9 | |
| 00:45 | | | 0 | 3 | 0 | | 0 | 3 | 12:45 | | | 2 | 9 | 5 | 20 | 7 | 29 |
| 01:00 | | | 0 | | 0 | | 0 | | 13:00 | | | 2 | | 4 | | 6 | |
| 01:15 | | | 0 | | 0 | | 0 | | 13:15 | | | 0 | | 7 | | 7 | |
| 01:30 | | | 0 | | 0 | | 0 | | 13:30 | | | 3 | | 5 | | 8 | |
| 01:45 | | | 0 | | 0 | | 0 | | 13:45 | | | 2 | 7 | 3 | 19 | 5 | 26 |
| 02:00 | | | 0 | | 0 | | 0 | | 14:00 | | | 1 | | 2 | | 3 | |
| 02:15 | | | 1 | | 1 | | 2 | | 14:15 | | | 4 | | 3 | | 7 | |
| 02:30 | | | 0 | | 0 | | 0 | | 14:30 | | | 3 | | 4 | | 7 | |
| 02:45 | | | 0 | 1 | 0 | 1 | 0 | 2 | 14:45 | | | 3 | 11 | 3 | 12 | 6 | 23 |
| 03:00 | | | 0 | | 0 | | 0 | | 15:00 | | | 4 | | 4 | | 8 | |
| 03:15 | | | 0 | | 0 | | 0 | | 15:15 | | | 14 | | 1 | | 15 | |
| 03:30 | | | 0 | | 0 | | 0 | | 15:30 | | | 12 | | 2 | | 14 | |
| 03:45 | | | 0 | | 0 | | 0 | | 15:45 | | | 5 | 35 | 2 | 9 | 7 | 44 |
| 04:00 | | | 0 | | 0 | | 0 | | 16:00 | | | 2 | | 4 | | 6 | |
| 04:15 | | | 0 | | 1 | | 1 | | 16:15 | | | 4 | | 2 | | 6 | |
| 04:30 | | | 0 | | 0 | | 0 | | 16:30 | | | 3 | | 8 | | 11 | |
| 04:45 | | | 0 | | 2 | 3 | 2 | 3 | 16:45 | | | 4 | 13 | 13 | 27 | 17 | 40 |
| 05:00 | | | 0 | | 0 | | 0 | | 17:00 | | | 4 | | 2 | | 6 | |
| 05:15 | | | 0 | | 0 | | 0 | | 17:15 | | | 2 | | 5 | | 7 | |
| 05:30 | | | 0 | | 1 | | 1 | | 17:30 | | | 0 | | 1 | | 1 | |
| 05:45 | | | 0 | | 3 | 4 | 3 | 4 | 17:45 | | | 9 | 15 | 3 | 11 | 12 | 26 |
| 06:00 | | | 1 | | 3 | | 4 | | 18:00 | | | 3 | | 1 | | 4 | |
| 06:15 | | | 0 | | 0 | | 0 | | 18:15 | | | 3 | | 1 | | 4 | |
| 06:30 | | | 0 | | 2 | | 2 | | 18:30 | | | 4 | | 0 | | 4 | |
| 06:45 | | | 0 | 1 | 3 | 8 | 3 | 9 | 18:45 | | | 5 | 15 | 0 | 2 | 5 | 17 |
| 07:00 | | | 0 | | 7 | | 7 | | 19:00 | | | 2 | | 0 | | 2 | |
| 07:15 | | | 1 | | 10 | | 11 | | 19:15 | | | 2 | | 0 | | 2 | |
| 07:30 | | | 0 | | 18 | | 18 | | 19:30 | | | 0 | | 0 | | 0 | |
| 07:45 | | | 0 | 1 | 21 | 56 | 21 | 57 | 19:45 | | | 0 | 4 | 0 | | 0 | 4 |
| 08:00 | | | 0 | | 2 | | 2 | | 20:00 | | | 2 | | 0 | | 2 | |
| 08:15 | | | 0 | | 2 | | 2 | | 20:15 | | | 2 | | 1 | | 3 | |
| 08:30 | | | 0 | | 1 | | 1 | | 20:30 | | | 1 | | 0 | | 1 | |
| 08:45 | | | 2 | 2 | 11 | 16 | 13 | 18 | 20:45 | | | 0 | 5 | 2 | 3 | 2 | 8 |
| 09:00 | | | 1 | | 6 | | 7 | | 21:00 | | | 1 | | 0 | | 1 | |
| 09:15 | | | 1 | | 5 | | 6 | | 21:15 | | | 3 | | 1 | | 4 | |
| 09:30 | | | 0 | | 2 | | 2 | | 21:30 | | | 4 | | 2 | | 6 | |
| 09:45 | | | 2 | 4 | 1 | 14 | 3 | 18 | 21:45 | | | 2 | 10 | 0 | 3 | 2 | 13 |
| 10:00 | | | 3 | | 3 | | 6 | | 22:00 | | | 1 | | 1 | | 2 | |
| 10:15 | | | 3 | | 2 | | 5 | | 22:15 | | | 3 | | 0 | | 3 | |
| 10:30 | | | 2 | | 2 | | 4 | | 22:30 | | | 3 | | 0 | | 3 | |
| 10:45 | | | 1 | 9 | 2 | 9 | 3 | 18 | 22:45 | | | 2 | 9 | 2 | 3 | 4 | 12 |
| 11:00 | | | 0 | | 2 | | 2 | | 23:00 | | | 0 | | 0 | | 0 | |
| 11:15 | | | 1 | | 6 | | 7 | | 23:15 | | | 0 | | 0 | | 0 | |
| 11:30 | | | 3 | | 4 | | 7 | | 23:30 | | | 0 | | 0 | | 0 | |
| 11:45 | | | 3 | 7 | 6 | 18 | 9 | 25 | 23:45 | | | 0 | | 0 | | 0 | |
| TOTALS | | | | 28 | | 129 | | 157 | TOTALS | | | | 133 | | 109 | | 242 |
| SPLIT % | | | | 17.8% | | 82.2% | | 39.3% | SPLIT % | | | | 55.0% | | 45.0% | | 60.7% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 161 | 238 | 399 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 09:45 | 07:00 | 07:00 | PM Peak Hour | | | 15:00 | 16:30 | 15:00 |
| AM Pk Volume | | | 10 | 56 | 57 | PM Pk Volume | | | 35 | 28 | 44 |
| Pk Hr Factor | | | 0.833 | 0.667 | 0.679 | Pk Hr Factor | | | 0.625 | 0.538 | 0.733 |
| 7 - 9 Volume | 0 | 0 | 3 | 72 | 75 | 4 - 6 Volume | 0 | 0 | 28 | 38 | 66 |
| 7 - 9 Peak Hour | | | 08:00 | 07:00 | 07:00 | 4 - 6 Peak Hour | | | 16:15 | 16:30 | 16:30 |
| 7 - 9 Pk Volume | 0 | 0 | 2 | 56 | 57 | 4 - 6 Pk Volume | 0 | 0 | 15 | 28 | 41 |
| Pk Hr Factor | 0.000 | 0.000 | 0.250 | 0.667 | 0.679 | Pk Hr Factor | 0.000 | 0.000 | 0.938 | 0.538 | 0.603 |

Prepared by NDS/ATD

# VOLUME

## Auburn Valley Rd Bet. Curtola Ranch Rd & Fairway Ct

**Day:** Friday
**Date:** 12/7/2018

**City:** Auburn
**Project #:** CA18_7414_001

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 147 | 148 | 295 |

| AM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| 00:00 | | | | | 0 | | 0 | | 0 | |
| 00:15 | | | | | 0 | | 0 | | 0 | |
| 00:30 | | | | | 0 | | 0 | | 0 | |
| 00:45 | | | | | 0 | | 0 | | 0 | |
| 01:00 | | | | | 0 | | 0 | | 0 | |
| 01:15 | | | | | 0 | | 0 | | 0 | |
| 01:30 | | | | | 0 | | 0 | | 0 | |
| 01:45 | | | | | 0 | | 0 | | 0 | |
| 02:00 | | | | | 0 | | 0 | | 0 | |
| 02:15 | | | | | 0 | | 0 | | 0 | |
| 02:30 | | | | | 0 | | 0 | | 0 | |
| 02:45 | | | | | 0 | | 0 | | 0 | |
| 03:00 | | | | | 0 | | 0 | | 0 | |
| 03:15 | | | | | 0 | | 0 | | 0 | |
| 03:30 | | | | | 0 | | 0 | | 0 | |
| 03:45 | | | | | 0 | | 0 | | 0 | |
| 04:00 | | | | | 0 | | 0 | | 0 | |
| 04:15 | | | | | 0 | | 0 | | 0 | |
| 04:30 | | | | | 0 | | 0 | | 0 | |
| 04:45 | | | | | 0 | | 1 | 1 | 1 | 1 |
| 05:00 | | | | | 0 | | 0 | | 0 | |
| 05:15 | | | | | 0 | | 0 | | 0 | |
| 05:30 | | | | | 0 | | 1 | | 1 | |
| 05:45 | | | | | 0 | | 5 | 6 | 5 | 6 |
| 06:00 | | | | | 0 | | 1 | | 1 | |
| 06:15 | | | | | 1 | | 0 | | 1 | |
| 06:30 | | | | | 0 | | 2 | | 2 | |
| 06:45 | | | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 4 |
| 07:00 | | | | | 1 | | 3 | | 4 | |
| 07:15 | | | | | 1 | | 3 | | 4 | |
| 07:30 | | | | | 1 | | 4 | | 5 | |
| 07:45 | | | 1 | 4 | 5 | 15 | 6 | 19 | | |
| 08:00 | | | | | 2 | | 8 | | 10 | |
| 08:15 | | | | | 0 | | 6 | | 6 | |
| 08:30 | | | | | 1 | | 4 | | 5 | |
| 08:45 | | | 0 | 3 | 2 | 20 | 2 | 23 | | |
| 09:00 | | | | | 1 | | 3 | | 4 | |
| 09:15 | | | | | 3 | | 7 | | 10 | |
| 09:30 | | | | | 1 | | 5 | | 6 | |
| 09:45 | | | 1 | 6 | 10 | 25 | 11 | 31 | | |
| 10:00 | | | | | 2 | | 3 | | 5 | |
| 10:15 | | | | | 0 | | 5 | | 5 | |
| 10:30 | | | | | 2 | | 6 | | 8 | |
| 10:45 | | | 2 | 6 | 1 | 15 | 3 | 21 | | |
| 11:00 | | | | | 1 | | 1 | | 2 | |
| 11:15 | | | | | 0 | | 1 | | 1 | |
| 11:30 | | | | | 0 | | 6 | | 6 | |
| 11:45 | | | 4 | 5 | 3 | 11 | 7 | 16 | | |
| TOTALS | | | | 25 | | 96 | | 121 | | |
| SPLIT % | | | | 20.7% | | 79.3% | | 41.0% | | |

| PM Period | NB | | SB | | EB | | WB | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | | | | 1 | | 3 | | 4 | |
| 12:15 | | | | | 3 | | 1 | | 4 | |
| 12:30 | | | | | 1 | | 2 | | 3 | |
| 12:45 | | | | | 6 | 11 | 1 | 7 | 7 | 18 |
| 13:00 | | | | | 3 | | 1 | | 4 | |
| 13:15 | | | | | 1 | | 2 | | 3 | |
| 13:30 | | | | | 6 | | 4 | | 10 | |
| 13:45 | | | | | 3 | 13 | 1 | 8 | 4 | 21 |
| 14:00 | | | | | 2 | | 4 | | 6 | |
| 14:15 | | | | | 7 | | 0 | | 7 | |
| 14:30 | | | | | 8 | | 2 | | 10 | |
| 14:45 | | | | | 12 | 29 | 3 | 9 | 15 | 38 |
| 15:00 | | | | | 12 | | 3 | | 15 | |
| 15:15 | | | | | 9 | | 4 | | 13 | |
| 15:30 | | | | | 1 | | 3 | | 4 | |
| 15:45 | | | | | 4 | 26 | 1 | 11 | 5 | 37 |
| 16:00 | | | | | 8 | | 5 | | 13 | |
| 16:15 | | | | | 10 | | 0 | | 10 | |
| 16:30 | | | | | 3 | | 2 | | 5 | |
| 16:45 | | | | | 7 | 28 | 1 | 8 | 8 | 36 |
| 17:00 | | | | | 0 | | 1 | | 1 | |
| 17:15 | | | | | 0 | | 0 | | 0 | |
| 17:30 | | | | | 3 | | 1 | | 4 | |
| 17:45 | | | | | 2 | 5 | 0 | 2 | 2 | 7 |
| 18:00 | | | | | 1 | | 0 | | 1 | |
| 18:15 | | | | | 2 | | 1 | | 3 | |
| 18:30 | | | | | 0 | | 0 | | 0 | |
| 18:45 | | | | | 1 | 4 | 0 | 1 | 1 | 5 |
| 19:00 | | | | | 0 | | 0 | | 0 | |
| 19:15 | | | | | 0 | | 0 | | 0 | |
| 19:30 | | | | | 0 | | 2 | | 2 | |
| 19:45 | | | | | 0 | | 0 | 2 | 0 | 2 |
| 20:00 | | | | | 0 | | 0 | | 0 | |
| 20:15 | | | | | 0 | | 2 | | 2 | |
| 20:30 | | | | | 0 | | 0 | | 0 | |
| 20:45 | | | | | 0 | | 0 | 2 | 0 | 2 |
| 21:00 | | | | | 2 | | 1 | | 3 | |
| 21:15 | | | | | 1 | | 0 | | 1 | |
| 21:30 | | | | | 1 | | 0 | | 1 | |
| 21:45 | | | | | 0 | 4 | 0 | 1 | 0 | 5 |
| 22:00 | | | | | 0 | | 0 | | 0 | |
| 22:15 | | | | | 0 | | 0 | | 0 | |
| 22:30 | | | | | 2 | | 1 | | 3 | |
| 22:45 | | | | | 0 | 2 | 0 | 1 | 0 | 3 |
| 23:00 | | | | | 0 | | 0 | | 0 | |
| 23:15 | | | | | 0 | | 0 | | 0 | |
| 23:30 | | | | | 0 | | 0 | | 0 | |
| 23:45 | | | | | 0 | | 0 | | 0 | |
| TOTALS | | | | | | 122 | | 52 | | 174 |
| SPLIT % | | | | | | 70.1% | | 29.9% | | 59.0% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|---|---|---|---|---|---|
| | 0 | 0 | 147 | 148 | 295 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak Hour | | | 11:45 | 09:00 | 09:15 | PM Peak Hour | | | 14:30 | 14:45 | 14:30 |
| AM Pk Volume | | | 9 | 25 | 32 | PM Pk Volume | | | 41 | 13 | 53 |
| Pk Hr Factor | | | 0.563 | 0.625 | 0.727 | Pk Hr Factor | | | 0.854 | 0.813 | 0.883 |
| 7 - 9 Volume | 0 | 0 | 7 | 35 | 42 | 4 - 6 Volume | 0 | 0 | 33 | 10 | 43 |
| 7 - 9 Peak Hour | | | 07:15 | 07:30 | 07:30 | 4 - 6 Peak Hour | | | 16:00 | 16:00 | 16:00 |
| 7 - 9 Pk Volume | 0 | 0 | 5 | 23 | 27 | 4 - 6 Pk Volume | 0 | 0 | 28 | 8 | 36 |
| Pk Hr Factor | 0.000 | 0.000 | 0.625 | 0.719 | 0.675 | Pk Hr Factor | 0.000 | 0.000 | 0.700 | 0.400 | 0.692 |

# LEVEL OF SERVICE CALCULATIONS

KDA

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 3 | 1 | 40 | 39 | 1 | 12 | 24 | 899 | 20 | 5 | 1296 | 10 |
| Future Vol, veh/h | 3 | 1 | 40 | 39 | 1 | 12 | 24 | 899 | 20 | 5 | 1296 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 3 | 1 | 43 | 42 | 1 | 13 | 26 | 967 | 22 | 5 | 1394 | 11 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1940 | 2445 | 697 | 1727 | 2434 | 484 | 1405 | 0 | 0 | 989 | 0 | 0 |
| Stage 1 | 1404 | 1404 | - | 1019 | 1019 | - | - | - | - | - | - | - |
| Stage 2 | 536 | 1041 | - | 708 | 1415 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 39 | 31 | 383 | 57 | 31 | 529 | 482 | - | - | 695 | - | - |
| Stage 1 | 147 | 204 | - | 254 | 313 | - | - | - | - | - | - | - |
| Stage 2 | 496 | 305 | - | 392 | 202 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 35 | 29 | 383 | 47 | 29 | 529 | 482 | - | - | 695 | - | - |
| Mov Cap-2 Maneuver | 35 | 29 | - | 47 | 29 | - | - | - | - | - | - | - |
| Stage 1 | 139 | 203 | - | 240 | 296 | - | - | - | - | - | - | - |
| Stage 2 | 456 | 289 | - | 344 | 201 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 26 | 195.6 | 0.3 | 0 |
| HCM LOS | D | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 482 | - | - | 33 | 383 | 46 | 529 | 695 | - | - |
| HCM Lane V/C Ratio | 0.054 | - | - | 0.13 | 0.112 | 0.935 | 0.024 | 0.008 | - | - |
| HCM Control Delay (s) | 12.9 | - | - | 129.8 | 15.6 | 250.7 | 12 | 10.2 | - | - |
| HCM Lane LOS | B | - | - | F | C | F | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.4 | 0.4 | 3.8 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 19 | 25 | 1301 | 1171 | 9 |
| Future Vol, veh/h | 1 | 19 | 25 | 1301 | 1171 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 20 | 26 | 1369 | 1233 | 9 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1970 | 617 | 1242 | 0 | - | 0 |
| Stage 1 | 1233 | - | - | - | - | - |
| Stage 2 | 737 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 55 | 433 | 556 | - | - | - |
| Stage 1 | 238 | - | - | - | - | - |
| Stage 2 | 434 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 52 | 433 | 556 | - | - | - |
| Mov Cap-2 Maneuver | 155 | - | - | - | - | - |
| Stage 1 | 227 | - | - | - | - | - |
| Stage 2 | 434 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.6 | 0.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 556 | - | 397 | - | - |
| HCM Lane V/C Ratio | 0.047 | - | 0.053 | - | - |
| HCM Control Delay (s) | 11.8 | - | 14.6 | - | - |
| HCM Lane LOS | B | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 17 | 2 | 13 | 5 | 6 | 26 |
| Future Vol, veh/h | 17 | 2 | 13 | 5 | 6 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 73 | 73 | 73 | 73 | 73 | 73 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 23 | 3 | 18 | 7 | 8 | 36 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 69 | 26 | 44 | 0 | - | 0 |
| Stage 1 | 26 | - | - | - | - | - |
| Stage 2 | 43 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 936 | 1050 | 1564 | - | - | - |
| Stage 1 | 997 | - | - | - | - | - |
| Stage 2 | 979 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 925 | 1050 | 1564 | - | - | - |
| Mov Cap-2 Maneuver | 925 | - | - | - | - | - |
| Stage 1 | 985 | - | - | - | - | - |
| Stage 2 | 979 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9 | 5.3 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1564 | - | 937 | - | - |
| HCM Lane V/C Ratio | 0.011 | - | 0.028 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 9 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 46 | 57 | 11 | 23 | 2 |
| Future Vol, veh/h | 3 | 46 | 57 | 11 | 23 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 57 | 70 | 14 | 28 | 2 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 84 | 0 | - | 0 | 142 | 77 |
| Stage 1 | - | - | - | - | 77 | - |
| Stage 2 | - | - | - | - | 65 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1513 | - | - | - | 851 | 984 |
| Stage 1 | - | - | - | - | 946 | - |
| Stage 2 | - | - | - | - | 958 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1513 | - | - | - | 848 | 984 |
| Mov Cap-2 Maneuver | - | - | - | - | 848 | - |
| Stage 1 | - | - | - | - | 943 | - |
| Stage 2 | - | - | - | - | 958 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 9.4 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1513 | - | - | - | 857 |
| HCM Lane V/C Ratio | 0.002 | - | - | - | 0.036 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.4 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 10 | 13 | 11 | 9 | 13 |
| Future Vol, veh/h | 18 | 10 | 13 | 11 | 9 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 71 | 71 | 71 | 71 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 14 | 18 | 15 | 13 | 18 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 33 | 0 | - | 0 | 90 | 26 |
| Stage 1 | - | - | - | - | 26 | - |
| Stage 2 | - | - | - | - | 64 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1579 | - | - | - | 910 | 1050 |
| Stage 1 | - | - | - | - | 997 | - |
| Stage 2 | - | - | - | - | 959 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1579 | - | - | - | 895 | 1050 |
| Mov Cap-2 Maneuver | - | - | - | - | 895 | - |
| Stage 1 | - | - | - | - | 981 | - |
| Stage 2 | - | - | - | - | 959 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 4.7 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1579 | - | - | - | 981 |
| HCM Lane V/C Ratio | 0.016 | - | - | - | 0.032 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 0 | 39 | 19 | 0 | 6 | 44 | 1778 | 53 | 6 | 1182 | 13 |
| Future Vol, veh/h | 15 | 0 | 39 | 19 | 0 | 6 | 44 | 1778 | 53 | 6 | 1182 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 15 | 0 | 40 | 19 | 0 | 6 | 45 | 1814 | 54 | 6 | 1206 | 13 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 2215 | 3176 | 603 | 2519 | 3135 | 907 | 1219 | 0 | 0 | 1868 | 0 | 0 |
| Stage 1 | 1218 | 1218 | - | 1904 | 1904 | - | - | - | - | - | - | - |
| Stage 2 | 997 | 1958 | - | 615 | 1231 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 24 | 10 | 442 | ~ 14 | 11 | 279 | 568 | - | - | 319 | - | - |
| Stage 1 | 191 | 251 | - | 71 | 115 | - | - | - | - | - | - | - |
| Stage 2 | 262 | 108 | - | 445 | 248 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 22 | 9 | 442 | ~ 12 | 10 | 279 | 568 | - | - | 319 | - | - |
| Mov Cap-2 Maneuver | 22 | 9 | - | ~ 12 | 10 | - | - | - | - | - | - | - |
| Stage 1 | 176 | 246 | - | 65 | 106 | - | - | - | - | - | - | - |
| Stage 2 | 236 | 99 | - | 397 | 243 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 103.5 | $ 711.7 | 0.3 | 0.1 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 568 | - | - | 22 | 442 | 12 | 279 | 319 | - | - |
| HCM Lane V/C Ratio | 0.079 | - | - | 0.696 | 0.09 | 1.616 | 0.022 | 0.019 | - | - |
| HCM Control Delay (s) | 11.9 | - | - | $ 336.6 | 13.9 | $ 930.7 | 18.2 | 16.5 | - | - |
| HCM Lane LOS | B | - | - | F | B | F | C | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 2 | 0.3 | 3.2 | 0.1 | 0.1 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 19 | 20 | 1621 | 1153 | 8 |
| Future Vol, veh/h | 8 | 19 | 20 | 1621 | 1153 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 99 | 99 | 99 | 99 | 99 | 99 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 19 | 20 | 1637 | 1165 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2024 | 583 | 1173 | 0 | - | 0 |
| Stage 1 | 1165 | - | - | - | - | - |
| Stage 2 | 859 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 50 | 456 | 591 | - | - | - |
| Stage 1 | 259 | - | - | - | - | - |
| Stage 2 | 375 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 48 | 456 | 591 | - | - | - |
| Mov Cap-2 Maneuver | 155 | - | - | - | - | - |
| Stage 1 | 250 | - | - | - | - | - |
| Stage 2 | 375 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 18.8 | 0.1 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 591 | - | 289 | - | - |
| HCM Lane V/C Ratio | 0.034 | - | 0.094 | - | - |
| HCM Control Delay (s) | 11.3 | - | 18.8 | - | - |
| HCM Lane LOS | B | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 25 | 12 | 9 | 9 | 8 | 22 |
| Future Vol, veh/h | 25 | 12 | 9 | 9 | 8 | 22 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 12 | 9 | 9 | 8 | 23 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 47 | 20 | 31 | 0 | - | 0 |
| Stage 1 | 20 | - | - | - | - | - |
| Stage 2 | 27 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 963 | 1058 | 1582 | - | - | - |
| Stage 1 | 1003 | - | - | - | - | - |
| Stage 2 | 996 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 957 | 1058 | 1582 | - | - | - |
| Mov Cap-2 Maneuver | 957 | - | - | - | - | - |
| Stage 1 | 997 | - | - | - | - | - |
| Stage 2 | 996 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.8 | 3.6 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1582 | - | 988 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | 0.039 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 8.8 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 86 | 102 | 7 | 20 | 5 |
| Future Vol, veh/h | 4 | 86 | 102 | 7 | 20 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 101 | 120 | 8 | 24 | 6 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 128 | 0 | - | 0 | 235 | 124 |
| Stage 1 | - | - | - | - | 124 | - |
| Stage 2 | - | - | - | - | 111 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1458 | - | - | - | 753 | 927 |
| Stage 1 | - | - | - | - | 902 | - |
| Stage 2 | - | - | - | - | 914 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1458 | - | - | - | 750 | 927 |
| Mov Cap-2 Maneuver | - | - | - | - | 750 | - |
| Stage 1 | - | - | - | - | 898 | - |
| Stage 2 | - | - | - | - | 914 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 9.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1458 | - | - | - | 780 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.038 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 8 | 15 | 9 | 5 | 10 |
| Future Vol, veh/h | 9 | 8 | 15 | 9 | 5 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 9 | 16 | 10 | 5 | 11 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 26 | 0 | - | 0 | 50 | 21 |
| Stage 1 | - | - | - | - | 21 | - |
| Stage 2 | - | - | - | - | 29 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1588 | - | - | - | 959 | 1056 |
| Stage 1 | - | - | - | - | 1002 | - |
| Stage 2 | - | - | - | - | 994 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1588 | - | - | - | 953 | 1056 |
| Mov Cap-2 Maneuver | - | - | - | - | 953 | - |
| Stage 1 | - | - | - | - | 996 | - |
| Stage 2 | - | - | - | - | 994 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 3.9 | 0 | 8.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1588 | - | - | - | 1019 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.016 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.6 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 7 | 1 | 77 | 39 | 1 | 12 | 44 | 908 | 20 | 5 | 1301 | 12 |
| Future Vol, veh/h | 7 | 1 | 77 | 39 | 1 | 12 | 44 | 908 | 20 | 5 | 1301 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 8 | 1 | 83 | 42 | 1 | 13 | 47 | 976 | 22 | 5 | 1399 | 13 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1992 | 2501 | 700 | 1780 | 2492 | 488 | 1412 | 0 | 0 | 998 | 0 | 0 |
| Stage 1 | 1409 | 1409 | - | 1070 | 1070 | - | - | - | - | - | - | - |
| Stage 2 | 583 | 1092 | - | 710 | 1422 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 36 | 28 | 382 | 52 | 29 | 526 | 479 | - | - | 689 | - | - |
| Stage 1 | 146 | 203 | - | 236 | 296 | - | - | - | - | - | - | - |
| Stage 2 | 465 | 289 | - | 391 | 200 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 31 | 25 | 382 | ~ 36 | 26 | 526 | 479 | - | - | 689 | - | - |
| Mov Cap-2 Maneuver | 31 | 25 | - | ~ 36 | 26 | - | - | - | - | - | - | - |
| Stage 1 | 132 | 202 | - | 213 | 267 | - | - | - | - | - | - | - |
| Stage 2 | 407 | 261 | - | 302 | 199 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 31.2 | 298.8 | 0.6 | 0 |
| HCM LOS | D | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 479 | - | - | 30 | 382 | 36 | 526 | 689 | - | - |
| HCM Lane V/C Ratio | 0.099 | - | - | 0.287 | 0.217 | 1.195 | 0.025 | 0.008 | - | - |
| HCM Control Delay (s) | 13.3 | - | - | 167.6 | 17 | $ 384.8 | 12 | 10.3 | - | - |
| HCM Lane LOS | B | - | - | F | C | F | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.9 | 0.8 | 4.5 | 0.1 | 0 | - | - |

**Notes**

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 42 | 38 | 1325 | 1210 | 12 |
| Future Vol, veh/h | 7 | 42 | 38 | 1325 | 1210 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 44 | 40 | 1395 | 1274 | 13 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2052 | 637 | 1287 | 0 | - | 0 |
| Stage 1 | 1274 | - | - | - | - | - |
| Stage 2 | 778 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 48 | 420 | 535 | - | - | - |
| Stage 1 | 226 | - | - | - | - | - |
| Stage 2 | 413 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 44 | 420 | 535 | - | - | - |
| Mov Cap-2 Maneuver | 144 | - | - | - | - | - |
| Stage 1 | 209 | - | - | - | - | - |
| Stage 2 | 413 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 17.9 | 0.3 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 535 | - | 330 | - | - |
| HCM Lane V/C Ratio | 0.075 | - | 0.156 | - | - |
| HCM Control Delay (s) | 12.3 | - | 17.9 | - | - |
| HCM Lane LOS | B | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.5 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 58 | 4 | 14 | 4 | 6 | 49 |
| Future Vol, veh/h | 58 | 4 | 14 | 4 | 6 | 49 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 73 | 73 | 73 | 73 | 73 | 73 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 79 | 5 | 19 | 5 | 8 | 67 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 85 | 42 | 75 | 0 | - | 0 |
| Stage 1 | 42 | - | - | - | - | - |
| Stage 2 | 43 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 916 | 1029 | 1524 | - | - | - |
| Stage 1 | 980 | - | - | - | - | - |
| Stage 2 | 979 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 904 | 1029 | 1524 | - | - | - |
| Mov Cap-2 Maneuver | 904 | - | - | - | - | - |
| Stage 1 | 967 | - | - | - | - | - |
| Stage 2 | 979 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.4 | 5.7 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1524 | - | 911 | - | - |
| HCM Lane V/C Ratio | 0.013 | - | 0.093 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.4 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 50 | 66 | 13 | 25 | 8 |
| Future Vol, veh/h | 7 | 50 | 66 | 13 | 25 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 9 | 62 | 81 | 16 | 31 | 10 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 97 | 0 | - | 0 | 169 | 89 |
| Stage 1 | - | - | - | - | 89 | - |
| Stage 2 | - | - | - | - | 80 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1496 | - | - | - | 821 | 969 |
| Stage 1 | - | - | - | - | 934 | - |
| Stage 2 | - | - | - | - | 943 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1496 | - | - | - | 816 | 969 |
| Mov Cap-2 Maneuver | - | - | - | - | 816 | - |
| Stage 1 | - | - | - | - | 928 | - |
| Stage 2 | - | - | - | - | 943 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.9 | 0 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1496 | - | - | - | 848 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.048 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.5 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 10 | 13 | 24 | 31 | 13 |
| Future Vol, veh/h | 18 | 10 | 13 | 24 | 31 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 71 | 71 | 71 | 71 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 14 | 18 | 34 | 44 | 18 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 52 | 0 | - | 0 | 99 | 35 |
| Stage 1 | - | - | - | - | 35 | - |
| Stage 2 | - | - | - | - | 64 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1554 | - | - | - | 900 | 1038 |
| Stage 1 | - | - | - | - | 987 | - |
| Stage 2 | - | - | - | - | 959 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1554 | - | - | - | 886 | 1038 |
| Mov Cap-2 Maneuver | - | - | - | - | 886 | - |
| Stage 1 | - | - | - | - | 971 | - |
| Stage 2 | - | - | - | - | 959 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 4.7 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1554 | - | - | - | 926 |
| HCM Lane V/C Ratio | 0.016 | - | - | - | 0.067 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.2 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 21 | 12 | 72 | 54 | 13 |
| Future Vol, veh/h | 24 | 21 | 12 | 72 | 54 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 23 | 13 | 78 | 59 | 14 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 170 | 66 | 73 | 0 | - | 0 |
| Stage 1 | 66 | - | - | - | - | - |
| Stage 2 | 104 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 820 | 998 | 1527 | - | - | - |
| Stage 1 | 957 | - | - | - | - | - |
| Stage 2 | 920 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 813 | 998 | 1527 | - | - | - |
| Mov Cap-2 Maneuver | 813 | - | - | - | - | - |
| Stage 1 | 948 | - | - | - | - | - |
| Stage 2 | 920 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.3 | 1.1 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1527 | - | 890 | - | - |
| HCM Lane V/C Ratio | 0.009 | - | 0.055 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.3 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 9.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 19 | 0 | 55 | 19 | 0 | 6 | 50 | 1787 | 53 | 6 | 1186 | 15 |
| Future Vol, veh/h | 19 | 0 | 55 | 19 | 0 | 6 | 50 | 1787 | 53 | 6 | 1186 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 19 | 0 | 56 | 19 | 0 | 6 | 51 | 1823 | 54 | 6 | 1210 | 15 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 2236 | 3201 | 605 | 2542 | 3162 | 912 | 1225 | 0 | 0 | 1877 | 0 | 0 |
| Stage 1 | 1222 | 1222 | - | 1925 | 1925 | - | - | - | - | - | - | - |
| Stage 2 | 1014 | 1979 | - | 617 | 1237 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 23 | 10 | 441 | ~ 14 | 10 | 276 | 565 | - | - | 316 | - | - |
| Stage 1 | 190 | 250 | - | 69 | 113 | - | - | - | - | - | - | - |
| Stage 2 | 256 | 106 | - | 444 | 246 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 21 | 9 | 441 | ~ 11 | 9 | 276 | 565 | - | - | 316 | - | - |
| Mov Cap-2 Maneuver | 21 | 9 | - | ~ 11 | 9 | - | - | - | - | - | - | - |
| Stage 1 | 173 | 245 | - | 63 | 103 | - | - | - | - | - | - | - |
| Stage 2 | 228 | 96 | - | 380 | 241 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 120.2 | $ 795.9 | 0.3 | 0.1 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 565 | - | - | 21 | 441 | 11 | 276 | 316 | - | - |
| HCM Lane V/C Ratio | 0.09 | - | - | 0.923 | 0.127 | 1.763 | 0.022 | 0.019 | - | - |
| HCM Control Delay (s) | 12 | - | - | $ 426.6 | 14.4 | $ 1041.4 | 18.3 | 16.6 | - | - |
| HCM Lane LOS | B | - | - | F | B | F | C | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 2.6 | 0.4 | 3.3 | 0.1 | 0.1 | - | - |

**Notes**

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 29 | 24 | 1631 | 1170 | 11 |
| Future Vol, veh/h | 13 | 29 | 24 | 1631 | 1170 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 99 | 99 | 99 | 99 | 99 | 99 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 29 | 24 | 1647 | 1182 | 11 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2054 | 591 | 1193 | 0 | - | 0 |
| Stage 1 | 1182 | - | - | - | - | - |
| Stage 2 | 872 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 48 | 450 | 581 | - | - | - |
| Stage 1 | 254 | - | - | - | - | - |
| Stage 2 | 369 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 46 | 450 | 581 | - | - | - |
| Mov Cap-2 Maneuver | 154 | - | - | - | - | - |
| Stage 1 | 244 | - | - | - | - | - |
| Stage 2 | 369 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20 | 0.2 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 581 | - | 282 | - | - |
| HCM Lane V/C Ratio | 0.042 | - | 0.15 | - | - |
| HCM Control Delay (s) | 11.5 | - | 20 | - | - |
| HCM Lane LOS | B | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.5 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 45 | 13 | 9 | 9 | 8 | 30 |
| Future Vol, veh/h | 45 | 13 | 9 | 9 | 8 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 46 | 13 | 9 | 9 | 8 | 31 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 51 | 24 | 39 | 0 | - | 0 |
| Stage 1 | 24 | - | - | - | - | - |
| Stage 2 | 27 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 958 | 1052 | 1571 | - | - | - |
| Stage 1 | 999 | - | - | - | - | - |
| Stage 2 | 996 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 952 | 1052 | 1571 | - | - | - |
| Mov Cap-2 Maneuver | 952 | - | - | - | - | - |
| Stage 1 | 993 | - | - | - | - | - |
| Stage 2 | 996 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.9 | 3.7 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1571 | - | 973 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | 0.061 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 8.9 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 88 | 105 | 8 | 21 | 8 |
| Future Vol, veh/h | 5 | 88 | 105 | 8 | 21 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 104 | 124 | 9 | 25 | 9 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 133 | 0 | - | 0 | 245 | 129 |
| Stage 1 | - | - | - | - | 129 | - |
| Stage 2 | - | - | - | - | 116 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1452 | - | - | - | 743 | 921 |
| Stage 1 | - | - | - | - | 897 | - |
| Stage 2 | - | - | - | - | 909 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1452 | - | - | - | 740 | 921 |
| Mov Cap-2 Maneuver | - | - | - | - | 740 | - |
| Stage 1 | - | - | - | - | 893 | - |
| Stage 2 | - | - | - | - | 909 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 9.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1452 | - | - | - | 782 |
| HCM Lane V/C Ratio | 0.004 | - | - | - | 0.044 |
| HCM Control Delay (s) | 7.5 | 0 | - | - | 9.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 8 | 15 | 13 | 16 | 10 |
| Future Vol, veh/h | 9 | 8 | 15 | 13 | 16 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 9 | 16 | 14 | 17 | 11 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 30 | 0 | - | 0 | 52 | 23 |
| Stage 1 | - | - | - | - | 23 | - |
| Stage 2 | - | - | - | - | 29 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1583 | - | - | - | 957 | 1054 |
| Stage 1 | - | - | - | - | 1000 | - |
| Stage 2 | - | - | - | - | 994 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1583 | - | - | - | 951 | 1054 |
| Mov Cap-2 Maneuver | - | - | - | - | 951 | - |
| Stage 1 | - | - | - | - | 994 | - |
| Stage 2 | - | - | - | - | 994 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 3.9 | 0 | 8.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1583 | - | - | - | 988 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.028 |
| HCM Control Delay (s) | 7.3 | 0 | - | - | 8.8 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 9 | 3 | 77 | 49 | 5 |
| Future Vol, veh/h | 13 | 9 | 3 | 77 | 49 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 10 | 3 | 84 | 53 | 5 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 146 | 56 | 58 | 0 | - | 0 |
| Stage 1 | 56 | - | - | - | - | - |
| Stage 2 | 90 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 846 | 1011 | 1546 | - | - | - |
| Stage 1 | 967 | - | - | - | - | - |
| Stage 2 | 934 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 844 | 1011 | 1546 | - | - | - |
| Mov Cap-2 Maneuver | 844 | - | - | - | - | - |
| Stage 1 | 965 | - | - | - | - | - |
| Stage 2 | 934 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.1 | 0.3 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1546 | - | 905 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.026 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 9.1 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 1 | 60 | 58 | 1 | 18 | 36 | 1346 | 30 | 7 | 1976 | 18 |
| Future Volume (vph) | 4 | 1 | 60 | 58 | 1 | 18 | 36 | 1346 | 30 | 7 | 1976 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 60 | 0 | | 60 | 300 | | 200 | 300 | | 200 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | 1 | | 2 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.962 | | | 0.953 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1792 | 1583 | 0 | 1775 | 1583 | 1770 | 3406 | 1583 | 1770 | 3406 | 1583 |
| Flt Permitted | | 0.962 | | | 0.953 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1792 | 1583 | 0 | 1775 | 1583 | 1770 | 3406 | 1583 | 1770 | 3406 | 1583 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 1456 | | | 1472 | | | 2369 | | | 1464 | |
| Travel Time (s) | | 33.1 | | | 33.5 | | | 29.4 | | | 18.1 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 6% | 2% | 2% | 6% | 2% |
| Adj. Flow (vph) | 4 | 1 | 65 | 62 | 1 | 19 | 39 | 1447 | 32 | 8 | 2125 | 19 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 5 | 65 | 0 | 63 | 19 | 39 | 1447 | 32 | 8 | 2125 | 19 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | Yes | | | Yes | | | Yes | | | Yes | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 71.7% | ICU Level of Service C |
| Analysis Period (min) 15 | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 93.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 4 | 1 | 60 | 58 | 1 | 18 | 36 | 1346 | 30 | 7 | 1976 | 18 |
| Future Vol, veh/h | 4 | 1 | 60 | 58 | 1 | 18 | 36 | 1346 | 30 | 7 | 1976 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 4 | 1 | 65 | 62 | 1 | 19 | 39 | 1447 | 32 | 8 | 2125 | 19 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 2943 | 3698 | 1063 | 2604 | 3685 | 724 | 2144 | 0 | 0 | 1479 | 0 | 0 |
| Stage 1 | 2141 | 2141 | - | 1525 | 1525 | - | - | - | - | - | - | - |
| Stage 2 | 802 | 1557 | - | 1079 | 2160 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 7 | 5 | 219 | ~ 12 | 5 | 368 | 248 | - | - | 451 | - | - |
| Stage 1 | 50 | 87 | - | 123 | 178 | - | - | - | - | - | - | - |
| Stage 2 | 344 | 172 | - | 233 | 85 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 5 | 4 | 219 | ~ 6 | 4 | 368 | 248 | - | - | 451 | - | - |
| Mov Cap-2 Maneuver | 5 | 4 | - | ~ 6 | 4 | - | - | - | - | - | - | - |
| Stage 1 | 42 | 85 | - | 104 | 150 | - | - | - | - | - | - | - |
| Stage 2 | 273 | 145 | - | 159 | 83 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 128.5 | $ 4215.3 | 0.6 | 0 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 248 | - | - | 5 | 219 | 6 | 368 | 451 | - | - |
| HCM Lane V/C Ratio | 0.156 | - | - | 1.075 | 0.295 | 10.573 | 0.053 | 0.017 | - | - |
| HCM Control Delay (s) | 22.2 | - | $ | 1332.4 | 28.2 | $ 5496.7 | 15.3 | 13.1 | - | - |
| HCM Lane LOS | C | - | - | F | D | F | C | B | - | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 1.4 | 1.2 | 9.6 | 0.2 | 0.1 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 1 | 32 | 80 | 1944 | 1787 | 16 |
| Future Volume (vph) | 1 | 32 | 80 | 1944 | 1787 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 500 | | | 320 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 0.869 | | | | | 0.850 |
| Flt Protected | 0.999 | | 0.950 | | | |
| Satd. Flow (prot) | 1617 | 0 | 1770 | 3539 | 3539 | 1583 |
| Flt Permitted | 0.999 | | 0.950 | | | |
| Satd. Flow (perm) | 1617 | 0 | 1770 | 3539 | 3539 | 1583 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1287 | | | 1101 | 1293 | |
| Travel Time (s) | 29.3 | | | 25.0 | 29.4 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 1 | 34 | 84 | 2046 | 1881 | 17 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 35 | 0 | 84 | 2046 | 1881 | 17 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 67.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 32 | 80 | 1944 | 1787 | 16 |
| Future Vol, veh/h | 1 | 32 | 80 | 1944 | 1787 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 34 | 84 | 2046 | 1881 | 17 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 3072 | 941 | 1898 | 0 | - | 0 |
| Stage 1 | 1881 | - | - | - | - | - |
| Stage 2 | 1191 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 9 | 264 | 310 | - | - | - |
| Stage 1 | 106 | - | - | - | - | - |
| Stage 2 | 251 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 7 | 264 | 310 | - | - | - |
| Mov Cap-2 Maneuver | 56 | - | - | - | - | - |
| Stage 1 | 77 | - | - | - | - | - |
| Stage 2 | 251 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 22.8 | 0.8 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 310 | - | 237 | - | - |
| HCM Lane V/C Ratio | 0.272 | - | 0.147 | - | - |
| HCM Control Delay (s) | 20.9 | - | 22.8 | - | - |
| HCM Lane LOS | C | - | C | - | - |
| HCM 95th %tile Q(veh) | 1.1 | - | 0.5 | - | - |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 25 | 3 | 19 | 6 | 12 | 39 |
| Future Volume (vph) | 25 | 3 | 19 | 6 | 12 | 39 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.986 | | | | 0.896 | |
| Flt Protected | 0.957 | | | 0.963 | | |
| Satd. Flow (prot) | 1758 | 0 | 0 | 1794 | 1669 | 0 |
| Flt Permitted | 0.957 | | | 0.963 | | |
| Satd. Flow (perm) | 1758 | 0 | 0 | 1794 | 1669 | 0 |
| Link Speed (mph) | 30 | | | 30 | 45 | |
| Link Distance (ft) | 1328 | | | 1761 | 1200 | |
| Travel Time (s) | 30.2 | | | 40.0 | 18.2 | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| Adj. Flow (vph) | 34 | 4 | 26 | 8 | 16 | 53 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 38 | 0 | 0 | 34 | 69 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 18.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 25 | 3 | 19 | 6 | 12 | 39 |
| Future Vol, veh/h | 25 | 3 | 19 | 6 | 12 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 73 | 73 | 73 | 73 | 73 | 73 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 34 | 4 | 26 | 8 | 16 | 53 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 103 | 43 | 69 | 0 | - | 0 |
| Stage 1 | 43 | - | - | - | - | - |
| Stage 2 | 60 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 895 | 1027 | 1532 | - | - | - |
| Stage 1 | 979 | - | - | - | - | - |
| Stage 2 | 963 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 880 | 1027 | 1532 | - | - | - |
| Mov Cap-2 Maneuver | 880 | - | - | - | - | - |
| Stage 1 | 962 | - | - | - | - | - |
| Stage 2 | 963 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.2 | 5.6 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1532 | - | 894 | - | - |
| HCM Lane V/C Ratio | 0.017 | - | 0.043 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.2 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 80 | 125 | 16 | 34 | 3 |
| Future Volume (vph) | 4 | 80 | 125 | 16 | 34 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.984 | | 0.988 | |
| Flt Protected | | 0.998 | | | 0.956 | |
| Satd. Flow (prot) | 0 | 1859 | 1833 | 0 | 1759 | 0 |
| Flt Permitted | | 0.998 | | | 0.956 | |
| Satd. Flow (perm) | 0 | 1859 | 1833 | 0 | 1759 | 0 |
| Link Speed (mph) | | 30 | 45 | | 45 | |
| Link Distance (ft) | | 1569 | 1474 | | 1072 | |
| Travel Time (s) | | 35.7 | 22.3 | | 16.2 | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Adj. Flow (vph) | 5 | 99 | 154 | 20 | 42 | 4 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 104 | 174 | 0 | 46 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 17.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 80 | 125 | 16 | 34 | 3 |
| Future Vol, veh/h | 4 | 80 | 125 | 16 | 34 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 99 | 154 | 20 | 42 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 174 | 0 | - | 0 | 273 | 164 |
| Stage 1 | - | - | - | - | 164 | - |
| Stage 2 | - | - | - | - | 109 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1403 | - | - | - | 716 | 881 |
| Stage 1 | - | - | - | - | 865 | - |
| Stage 2 | - | - | - | - | 916 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1403 | - | - | - | 713 | 881 |
| Mov Cap-2 Maneuver | - | - | - | - | 713 | - |
| Stage 1 | - | - | - | - | 862 | - |
| Stage 2 | - | - | - | - | 916 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 10.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1403 | - | - | - | 724 |
| HCM Lane V/C Ratio | 0.004 | - | - | - | 0.063 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 10.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 27 | 44 | 21 | 29 | 35 | 19 |
| Future Volume (vph) | 27 | 44 | 21 | 29 | 35 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.922 | | 0.952 | |
| Flt Protected | | 0.981 | | | 0.969 | |
| Satd. Flow (prot) | 0 | 1827 | 1717 | 0 | 1718 | 0 |
| Flt Permitted | | 0.981 | | | 0.969 | |
| Satd. Flow (perm) | 0 | 1827 | 1717 | 0 | 1718 | 0 |
| Link Speed (mph) | | 30 | 45 | | 45 | |
| Link Distance (ft) | | 1409 | 1280 | | 1184 | |
| Travel Time (s) | | 32.0 | 19.4 | | 17.9 | |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Adj. Flow (vph) | 38 | 62 | 30 | 41 | 49 | 27 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 100 | 71 | 0 | 76 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 20.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 27 | 44 | 21 | 29 | 35 | 19 |
| Future Vol, veh/h | 27 | 44 | 21 | 29 | 35 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 71 | 71 | 71 | 71 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 62 | 30 | 41 | 49 | 27 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 71 | 0 | - | 0 | 189 | 51 |
| Stage 1 | - | - | - | - | 51 | - |
| Stage 2 | - | - | - | - | 138 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1529 | - | - | - | 800 | 1017 |
| Stage 1 | - | - | - | - | 971 | - |
| Stage 2 | - | - | - | - | 889 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1529 | - | - | - | 779 | 1017 |
| Mov Cap-2 Maneuver | - | - | - | - | 779 | - |
| Stage 1 | - | - | - | - | 946 | - |
| Stage 2 | - | - | - | - | 889 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.8 | 0 | 9.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1529 | - | - | - | 849 |
| HCM Lane V/C Ratio | 0.025 | - | - | - | 0.09 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.7 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 101 | 77 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 101 | 77 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 1863 | 0 | 0 | 1863 | 1863 | 0 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1863 | 0 | 0 | 1863 | 1863 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1589 | | | 1498 | 1761 | |
| Travel Time (s) | 36.1 | | | 34.0 | 40.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 0 | 0 | 110 | 84 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 110 | 84 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 8.6% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 101 | 77 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 101 | 77 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 110 | 84 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 194 | 84 | 84 | 0 | - | 0 |
| Stage 1 | 84 | - | - | - | - | - |
| Stage 2 | 110 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 795 | 975 | 1513 | - | - | - |
| Stage 1 | 939 | - | - | - | - | - |
| Stage 2 | 915 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 795 | 975 | 1513 | - | - | - |
| Mov Cap-2 Maneuver | 795 | - | - | - | - | - |
| Stage 1 | 939 | - | - | - | - | - |
| Stage 2 | 915 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1513 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 154.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 24 | 0 | 58 | 28 | 0 | 9 | 66 | 2675 | 79 | 9 | 1786 | 21 |
| Future Vol, veh/h | 24 | 0 | 58 | 28 | 0 | 9 | 66 | 2675 | 79 | 9 | 1786 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 24 | 0 | 59 | 29 | 0 | 9 | 67 | 2730 | 81 | 9 | 1822 | 21 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 3339 | 4785 | 911 | 3793 | 4725 | 1365 | 1843 | 0 | 0 | 2811 | 0 | 0 |
| Stage 1 | 1840 | 1840 | - | 2864 | 2864 | - | - | - | - | - | - | - |
| Stage 2 | 1499 | 2945 | - | 929 | 1861 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 3 | 1 | 277 | ~ 1 | 1 | 137 | 326 | - | - | 135 | - | - |
| Stage 1 | 78 | 124 | - | ~ 17 | 36 | - | - | - | - | - | - | - |
| Stage 2 | 128 | 33 | - | 288 | 121 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 2 | 1 | 277 | ~ 1 | 1 | 137 | 326 | - | - | 135 | - | - |
| Mov Cap-2 Maneuver | ~ 2 | 1 | - | ~ 1 | 1 | - | - | - | - | - | - | - |
| Stage 1 | 62 | 116 | - | ~ 13 | 29 | - | - | - | - | - | - | - |
| Stage 2 | 95 | 26 | - | 211 | 113 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | $ 2466.4 | $ 14398.3 | 0.4 | 0.2 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 326 | - | - | 2 | 277 | 1 | 137 | 135 | - | - |
| HCM Lane V/C Ratio | 0.207 | - | - | 12.245 | 0.214 | 28.571 | 0.067 | 0.068 | - | - |
| HCM Control Delay (s) | 18.9 | - | $ | 8374.9 | 21.5 | $ 19015.6 | 33.2 | 33.6 | - | - |
| HCM Lane LOS | C | - | - | F | C | F | D | D | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | - | 4.7 | 0.8 | 5.4 | 0.2 | 0.2 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 14 | 51 | 53 | 2439 | 1741 | 14 |
| Future Vol, veh/h | 14 | 51 | 53 | 2439 | 1741 | 14 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 99 | 99 | 99 | 99 | 99 | 99 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 52 | 54 | 2464 | 1759 | 14 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 3099 | 880 | 1773 | 0 | - | 0 |
| Stage 1 | 1759 | - | - | - | - | - |
| Stage 2 | 1340 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | ~ 9 | 290 | 347 | - | - | - |
| Stage 1 | 124 | - | - | - | - | - |
| Stage 2 | 209 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 8 | 290 | 347 | - | - | - |
| Mov Cap-2 Maneuver | 67 | - | - | - | - | - |
| Stage 1 | 105 | - | - | - | - | - |
| Stage 2 | 209 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 39.2 | 0.4 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 347 | - | 169 | - | - |
| HCM Lane V/C Ratio | 0.154 | - | 0.389 | - | - |
| HCM Control Delay (s) | 17.3 | - | 39.2 | - | - |
| HCM Lane LOS | C | - | E | - | - |
| HCM 95th %tile Q(veh) | 0.5 | - | 1.7 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 37 | 18 | 13 | 15 | 14 | 33 |
| Future Vol, veh/h | 37 | 18 | 13 | 15 | 14 | 33 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 19 | 13 | 15 | 14 | 34 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 72 | 31 | 48 | 0 | - | 0 |
| Stage 1 | 31 | - | - | - | - | - |
| Stage 2 | 41 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 932 | 1043 | 1559 | - | - | - |
| Stage 1 | 992 | - | - | - | - | - |
| Stage 2 | 981 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 925 | 1043 | 1559 | - | - | - |
| Mov Cap-2 Maneuver | 925 | - | - | - | - | - |
| Stage 1 | 984 | - | - | - | - | - |
| Stage 2 | 981 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9 | 3.4 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1559 | - | 961 | - | - |
| HCM Lane V/C Ratio | 0.009 | - | 0.059 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 9 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 153 | 177 | 10 | 30 | 7 |
| Future Vol, veh/h | 6 | 153 | 177 | 10 | 30 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 180 | 208 | 12 | 35 | 8 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 220 | 0 | - | 0 | 408 | 214 |
| Stage 1 | - | - | - | - | 214 | - |
| Stage 2 | - | - | - | - | 194 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1349 | - | - | - | 599 | 826 |
| Stage 1 | - | - | - | - | 822 | - |
| Stage 2 | - | - | - | - | 839 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1349 | - | - | - | 595 | 826 |
| Mov Cap-2 Maneuver | - | - | - | - | 595 | - |
| Stage 1 | - | - | - | - | 817 | - |
| Stage 2 | - | - | - | - | 839 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 11.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1349 | - | - | - | 628 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.069 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 11.2 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 28 | 38 | 17 | 18 | 15 |
| Future Vol, veh/h | 13 | 28 | 38 | 17 | 18 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 30 | 41 | 18 | 19 | 16 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 59 | 0 | - | 0 | 108 | 50 |
| Stage 1 | - | - | - | - | 50 | - |
| Stage 2 | - | - | - | - | 58 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1545 | - | - | - | 889 | 1018 |
| Stage 1 | - | - | - | - | 972 | - |
| Stage 2 | - | - | - | - | 965 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1545 | - | - | - | 881 | 1018 |
| Mov Cap-2 Maneuver | - | - | - | - | 881 | - |
| Stage 1 | - | - | - | - | 963 | - |
| Stage 2 | - | - | - | - | 965 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.3 | 0 | 9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1545 | - | - | - | 938 |
| HCM Lane V/C Ratio | 0.009 | - | - | - | 0.038 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 113 | 73 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 113 | 73 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 0 | 123 | 79 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 202 | 79 | 79 | 0 | - | 0 |
| Stage 1 | 79 | - | - | - | - | - |
| Stage 2 | 123 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 787 | 981 | 1519 | - | - | - |
| Stage 1 | 944 | - | - | - | - | - |
| Stage 2 | 902 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 787 | 981 | 1519 | - | - | - |
| Mov Cap-2 Maneuver | 787 | - | - | - | - | - |
| Stage 1 | 944 | - | - | - | - | - |
| Stage 2 | 902 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1519 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 9 | 1 | 97 | 58 | 1 | 18 | 56 | 1353 | 30 | 7 | 1980 | 20 |
| Future Volume (vph) | 9 | 1 | 97 | 58 | 1 | 18 | 56 | 1353 | 30 | 7 | 1980 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 60 | 0 | | 60 | 300 | | 200 | 300 | | 200 |
| Storage Lanes | 0 | | 1 | 0 | | 1 | 1 | | 2 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.957 | | | 0.953 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1783 | 1583 | 0 | 1775 | 1583 | 1770 | 3406 | 1583 | 1770 | 3406 | 1583 |
| Flt Permitted | | 0.957 | | | 0.953 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1783 | 1583 | 0 | 1775 | 1583 | 1770 | 3406 | 1583 | 1770 | 3406 | 1583 |
| Link Speed (mph) | | 30 | | | 30 | | | 55 | | | 55 | |
| Link Distance (ft) | | 1456 | | | 1472 | | | 2369 | | | 1464 | |
| Travel Time (s) | | 33.1 | | | 33.5 | | | 29.4 | | | 18.1 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 6% | 2% | 2% | 6% | 2% |
| Adj. Flow (vph) | 10 | 1 | 104 | 62 | 1 | 19 | 60 | 1455 | 32 | 8 | 2129 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 11 | 104 | 0 | 63 | 19 | 60 | 1455 | 32 | 8 | 2129 | 22 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | Yes | | | Yes | | | Yes | | | Yes | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 74.1% | ICU Level of Service D |
| Analysis Period (min) 15 | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 195.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 9 | 1 | 97 | 58 | 1 | 18 | 56 | 1353 | 30 | 7 | 1980 | 20 |
| Future Vol, veh/h | 9 | 1 | 97 | 58 | 1 | 18 | 56 | 1353 | 30 | 7 | 1980 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 10 | 1 | 104 | 62 | 1 | 19 | 60 | 1455 | 32 | 8 | 2129 | 22 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 2993 | 3752 | 1065 | 2656 | 3742 | 728 | 2151 | 0 | 0 | 1487 | 0 | 0 |
| Stage 1 | 2145 | 2145 | - | 1575 | 1575 | - | - | - | - | - | - | - |
| Stage 2 | 848 | 1607 | - | 1081 | 2167 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 6 | 4 | 219 | ~ 11 | 4 | 366 | 247 | - | - | 448 | - | - |
| Stage 1 | 50 | 87 | - | 115 | 169 | - | - | - | - | - | - | - |
| Stage 2 | 322 | 163 | - | 232 | 85 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 3 | 3 | 219 | ~ 3 | 3 | 366 | 247 | - | - | 448 | - | - |
| Mov Cap-2 Maneuver | ~ 3 | 3 | - | ~ 3 | 3 | - | - | - | - | - | - | - |
| Stage 1 | 38 | 85 | - | 87 | 128 | - | - | - | - | - | - | - |
| Stage 2 | 229 | 123 | - | 118 | 83 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | $ 340.1 | $ 8732.6 | 0.9 | 0 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 247 | - | - | 3 | 219 | 3 | 366 | 448 | - | - |
| HCM Lane V/C Ratio | 0.244 | - | - | 3.584 | 0.476 | 21.147 | 0.053 | 0.017 | - | - |
| HCM Control Delay (s) | 24.2 | - | $ | 3294.3 | 35.1 | $ 11392.1 | 15.4 | 13.2 | - | - |
| HCM Lane LOS | C | - | - | F | E | F | C | B | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | - | 2.5 | 2.3 | 9.9 | 0.2 | 0.1 | - | - |

**Notes**

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 7 | 55 | 93 | 1966 | 1825 | 19 |
| Future Volume (vph) | 7 | 55 | 93 | 1966 | 1825 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 500 | | | 320 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | 0.880 | | | | | 0.850 |
| Flt Protected | 0.995 | | 0.950 | | | |
| Satd. Flow (prot) | 1631 | 0 | 1770 | 3539 | 3539 | 1583 |
| Flt Permitted | 0.995 | | 0.950 | | | |
| Satd. Flow (perm) | 1631 | 0 | 1770 | 3539 | 3539 | 1583 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1287 | | | 1101 | 1293 | |
| Travel Time (s) | 29.3 | | | 25.0 | 29.4 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 7 | 58 | 98 | 2069 | 1921 | 20 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 65 | 0 | 98 | 2069 | 1921 | 20 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 69.4% | ICU Level of Service C |
| Analysis Period (min) 15 | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 55 | 93 | 1966 | 1825 | 19 |
| Future Vol, veh/h | 7 | 55 | 93 | 1966 | 1825 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 58 | 98 | 2069 | 1921 | 20 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 3152 | 961 | 1941 | 0 | - | 0 |
| Stage 1 | 1921 | - | - | - | - | - |
| Stage 2 | 1231 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 8 | 256 | 298 | - | - | - |
| Stage 1 | 101 | - | - | - | - | - |
| Stage 2 | 239 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 5 | 256 | 298 | - | - | - |
| Mov Cap-2 Maneuver | 50 | - | - | - | - | - |
| Stage 1 | 68 | - | - | - | - | - |
| Stage 2 | 239 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 37.3 | 1 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 298 | - | 175 | - | - |
| HCM Lane V/C Ratio | 0.329 | - | 0.373 | - | - |
| HCM Control Delay (s) | 22.9 | - | 37.3 | - | - |
| HCM Lane LOS | C | - | E | - | - |
| HCM 95th %tile Q(veh) | 1.4 | - | 1.6 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 66 | 5 | 20 | 6 | 12 | 62 |
| Future Volume (vph) | 66 | 5 | 20 | 6 | 12 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.990 | | | | 0.886 | |
| Flt Protected | 0.956 | | | 0.963 | | |
| Satd. Flow (prot) | 1763 | 0 | 0 | 1794 | 1650 | 0 |
| Flt Permitted | 0.956 | | | 0.963 | | |
| Satd. Flow (perm) | 1763 | 0 | 0 | 1794 | 1650 | 0 |
| Link Speed (mph) | 30 | | | 30 | 45 | |
| Link Distance (ft) | 1328 | | | 1761 | 1200 | |
| Travel Time (s) | 30.2 | | | 40.0 | 18.2 | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 |
| Adj. Flow (vph) | 90 | 7 | 27 | 8 | 16 | 85 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 97 | 0 | 0 | 35 | 101 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 18.7% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 66 | 5 | 20 | 6 | 12 | 62 |
| Future Vol, veh/h | 66 | 5 | 20 | 6 | 12 | 62 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 73 | 73 | 73 | 73 | 73 | 73 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 90 | 7 | 27 | 8 | 16 | 85 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 121 | 59 | 101 | 0 | - | 0 |
| Stage 1 | 59 | - | - | - | - | - |
| Stage 2 | 62 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 874 | 1007 | 1491 | - | - | - |
| Stage 1 | 964 | - | - | - | - | - |
| Stage 2 | 961 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 858 | 1007 | 1491 | - | - | - |
| Mov Cap-2 Maneuver | 858 | - | - | - | - | - |
| Stage 1 | 947 | - | - | - | - | - |
| Stage 2 | 961 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.7 | 5.7 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1491 | - | 867 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | 0.112 | - | - |
| HCM Control Delay (s) | 7.5 | 0 | 9.7 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 8 | 84 | 134 | 18 | 36 | 9 |
| Future Volume (vph) | 8 | 84 | 134 | 18 | 36 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.984 | | 0.973 | |
| Flt Protected | | 0.996 | | | 0.962 | |
| Satd. Flow (prot) | 0 | 1855 | 1833 | 0 | 1744 | 0 |
| Flt Permitted | | 0.996 | | | 0.962 | |
| Satd. Flow (perm) | 0 | 1855 | 1833 | 0 | 1744 | 0 |
| Link Speed (mph) | | 30 | 45 | | 45 | |
| Link Distance (ft) | | 1569 | 1474 | | 1072 | |
| Travel Time (s) | | 35.7 | 22.3 | | 16.2 | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Adj. Flow (vph) | 10 | 104 | 165 | 22 | 44 | 11 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 114 | 187 | 0 | 55 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |
| Intersection Capacity Utilization 21.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 84 | 134 | 18 | 36 | 9 |
| Future Vol, veh/h | 8 | 84 | 134 | 18 | 36 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 104 | 165 | 22 | 44 | 11 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 187 | 0 | - | 0 | 300 | 176 |
| Stage 1 | - | - | - | - | 176 | - |
| Stage 2 | - | - | - | - | 124 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1387 | - | - | - | 691 | 867 |
| Stage 1 | - | - | - | - | 855 | - |
| Stage 2 | - | - | - | - | 902 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1387 | - | - | - | 685 | 867 |
| Mov Cap-2 Maneuver | - | - | - | - | 685 | - |
| Stage 1 | - | - | - | - | 848 | - |
| Stage 2 | - | - | - | - | 902 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0 | 10.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1387 | - | - | - | 715 |
| HCM Lane V/C Ratio | 0.007 | - | - | - | 0.078 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 10.5 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 27 | 44 | 21 | 29 | 35 | 19 |
| Future Volume (vph) | 27 | 44 | 21 | 29 | 35 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.922 | | 0.952 | |
| Flt Protected | | 0.981 | | | 0.969 | |
| Satd. Flow (prot) | 0 | 1827 | 1717 | 0 | 1718 | 0 |
| Flt Permitted | | 0.981 | | | 0.969 | |
| Satd. Flow (perm) | 0 | 1827 | 1717 | 0 | 1718 | 0 |
| Link Speed (mph) | | 30 | 45 | | 45 | |
| Link Distance (ft) | | 1409 | 1280 | | 1184 | |
| Travel Time (s) | | 32.0 | 19.4 | | 17.9 | |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Adj. Flow (vph) | 38 | 62 | 30 | 41 | 49 | 27 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 100 | 71 | 0 | 76 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 0 | 0 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 20.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 27 | 44 | 21 | 29 | 35 | 19 |
| Future Vol, veh/h | 27 | 44 | 21 | 29 | 35 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 71 | 71 | 71 | 71 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 38 | 62 | 30 | 41 | 49 | 27 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 71 | 0 | - | 0 | 189 | 51 |
| Stage 1 | - | - | - | - | 51 | - |
| Stage 2 | - | - | - | - | 138 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1529 | - | - | - | 800 | 1017 |
| Stage 1 | - | - | - | - | 971 | - |
| Stage 2 | - | - | - | - | 889 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1529 | - | - | - | 779 | 1017 |
| Mov Cap-2 Maneuver | - | - | - | - | 779 | - |
| Stage 1 | - | - | - | - | 946 | - |
| Stage 2 | - | - | - | - | 889 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.8 | 0 | 9.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1529 | - | - | - | 849 |
| HCM Lane V/C Ratio | 0.025 | - | - | - | 0.09 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9.7 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 24 | 21 | 12 | 107 | 82 | 13 |
| Future Volume (vph) | 24 | 21 | 12 | 107 | 82 | 13 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.937 | | | | 0.982 | |
| Flt Protected | 0.974 | | | 0.995 | | |
| Satd. Flow (prot) | 1700 | 0 | 0 | 1853 | 1829 | 0 |
| Flt Permitted | 0.974 | | | 0.995 | | |
| Satd. Flow (perm) | 1700 | 0 | 0 | 1853 | 1829 | 0 |
| Link Speed (mph) | 30 | | | 30 | 30 | |
| Link Distance (ft) | 1589 | | | 1498 | 1761 | |
| Travel Time (s) | 36.1 | | | 34.0 | 40.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 26 | 23 | 13 | 116 | 89 | 14 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 49 | 0 | 0 | 129 | 103 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 23.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 21 | 12 | 107 | 82 | 13 |
| Future Vol, veh/h | 24 | 21 | 12 | 107 | 82 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 23 | 13 | 116 | 89 | 14 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 238 | 96 | 103 | 0 | - | 0 |
| Stage 1 | 96 | - | - | - | - | - |
| Stage 2 | 142 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 750 | 960 | 1489 | - | - | - |
| Stage 1 | 928 | - | - | - | - | - |
| Stage 2 | 885 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 743 | 960 | 1489 | - | - | - |
| Mov Cap-2 Maneuver | 743 | - | - | - | - | - |
| Stage 1 | 920 | - | - | - | - | - |
| Stage 2 | 885 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.6 | 0.8 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1489 | - | 831 | - | - |
| HCM Lane V/C Ratio | 0.009 | - | 0.059 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.6 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 166.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 28 | 0 | 74 | 28 | 0 | 9 | 72 | 2682 | 79 | 9 | 1789 | 22 |
| Future Vol, veh/h | 28 | 0 | 74 | 28 | 0 | 9 | 72 | 2682 | 79 | 9 | 1789 | 22 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 60 | - | - | 60 | 300 | - | 200 | 300 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 2 | 2 | 6 | 2 |
| Mvmt Flow | 29 | 0 | 76 | 29 | 0 | 9 | 73 | 2737 | 81 | 9 | 1826 | 22 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 3359 | 4808 | 913 | 3814 | 4749 | 1369 | 1848 | 0 | 0 | 2818 | 0 | 0 |
| Stage 1 | 1844 | 1844 | - | 2883 | 2883 | - | - | - | - | - | - | - |
| Stage 2 | 1515 | 2964 | - | 931 | 1866 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | ~ 3 | 1 | 276 | ~ 1 | 1 | 136 | 324 | - | - | 134 | - | - |
| Stage 1 | 77 | 124 | - | ~ 16 | 36 | - | - | - | - | - | - | - |
| Stage 2 | 125 | 32 | - | 287 | 121 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 2 | 1 | 276 | ~ 1 | 1 | 136 | 324 | - | - | 134 | - | - |
| Mov Cap-2 Maneuver | ~ 2 | 1 | - | ~ 1 | 1 | - | - | - | - | - | - | - |
| Stage 1 | 60 | 116 | - | ~ 12 | 28 | - | - | - | - | - | - | - |
| Stage 2 | 90 | 25 | - | 194 | 113 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | $ 2575.8 | $ 14398.3 | 0.5 | 0.2 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 324 | - | - | 2 | 276 | 1 | 136 | 134 | - | - |
| HCM Lane V/C Ratio | 0.227 | - | - | 14.286 | 0.274 | 28.571 | 0.068 | 0.069 | - | - |
| HCM Control Delay (s) | 19.3 | - | $ | 9322.8 | 22.1 | $ 19015.6 | 33.4 | 33.8 | - | - |
| HCM Lane LOS | C | - | - | F | C | F | D | D | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | - | 5.3 | 1.1 | 5.4 | 0.2 | 0.2 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 19 | 61 | 57 | 2447 | 1758 | 16 |
| Future Vol, veh/h | 19 | 61 | 57 | 2447 | 1758 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 500 | - | - | 320 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 99 | 99 | 99 | 99 | 99 | 99 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 19 | 62 | 58 | 2472 | 1776 | 16 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 3128 | 888 | 1792 | 0 | - | 0 |
| Stage 1 | 1776 | - | - | - | - | - |
| Stage 2 | 1352 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | ~ 9 | 287 | 341 | - | - | - |
| Stage 1 | 121 | - | - | - | - | - |
| Stage 2 | 206 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 7 | 287 | 341 | - | - | - |
| Mov Cap-2 Maneuver | 64 | - | - | - | - | - |
| Stage 1 | 100 | - | - | - | - | - |
| Stage 2 | 206 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 50 | 0.4 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 341 | - | 157 | - | - |
| HCM Lane V/C Ratio | 0.169 | - | 0.515 | - | - |
| HCM Control Delay (s) | 17.7 | - | 50 | - | - |
| HCM Lane LOS | C | - | F | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | 2.5 | - | - |

Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 57 | 19 | 13 | 15 | 14 | 41 |
| Future Vol, veh/h | 57 | 19 | 13 | 15 | 14 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 59 | 20 | 13 | 15 | 14 | 42 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 76 | 35 | 56 | 0 | - | 0 |
| Stage 1 | 35 | - | - | - | - | - |
| Stage 2 | 41 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 927 | 1038 | 1549 | - | - | - |
| Stage 1 | 987 | - | - | - | - | - |
| Stage 2 | 981 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 920 | 1038 | 1549 | - | - | - |
| Mov Cap-2 Maneuver | 920 | - | - | - | - | - |
| Stage 1 | 979 | - | - | - | - | - |
| Stage 2 | 981 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.1 | 3.4 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1549 | - | 947 | - | - |
| HCM Lane V/C Ratio | 0.009 | - | 0.083 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 9.1 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 155 | 181 | 11 | 31 | 10 |
| Future Vol, veh/h | 7 | 155 | 181 | 11 | 31 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 182 | 213 | 13 | 36 | 12 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 226 | 0 | - | 0 | 418 | 220 |
| Stage 1 | - | - | - | - | 220 | - |
| Stage 2 | - | - | - | - | 198 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1342 | - | - | - | 591 | 820 |
| Stage 1 | - | - | - | - | 817 | - |
| Stage 2 | - | - | - | - | 835 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1342 | - | - | - | 587 | 820 |
| Mov Cap-2 Maneuver | - | - | - | - | 587 | - |
| Stage 1 | - | - | - | - | 811 | - |
| Stage 2 | - | - | - | - | 835 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 11.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1342 | - | - | - | 631 |
| HCM Lane V/C Ratio | 0.006 | - | - | - | 0.076 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 11.2 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 28 | 38 | 17 | 18 | 15 |
| Future Vol, veh/h | 13 | 28 | 38 | 17 | 18 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 30 | 41 | 18 | 19 | 16 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 59 | 0 | - | 0 | 108 | 50 |
| Stage 1 | - | - | - | - | 50 | - |
| Stage 2 | - | - | - | - | 58 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1545 | - | - | - | 889 | 1018 |
| Stage 1 | - | - | - | - | 972 | - |
| Stage 2 | - | - | - | - | 965 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1545 | - | - | - | 881 | 1018 |
| Mov Cap-2 Maneuver | - | - | - | - | 881 | - |
| Stage 1 | - | - | - | - | 963 | - |
| Stage 2 | - | - | - | - | 965 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.3 | 0 | 9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1545 | - | - | - | 938 |
| HCM Lane V/C Ratio | 0.009 | - | - | - | 0.038 |
| HCM Control Delay (s) | 7.4 | 0 | - | - | 9 |
| HCM Lane LOS | A | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 13 | 9 | 3 | 116 | 75 | 5 |
| Future Vol, veh/h | 13 | 9 | 3 | 116 | 75 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 10 | 3 | 126 | 82 | 5 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 217 | 85 | 87 | 0 | - | 0 |
| Stage 1 | 85 | - | - | - | - | - |
| Stage 2 | 132 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 771 | 974 | 1509 | - | - | - |
| Stage 1 | 938 | - | - | - | - | - |
| Stage 2 | 894 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 769 | 974 | 1509 | - | - | - |
| Mov Cap-2 Maneuver | 769 | - | - | - | - | - |
| Stage 1 | 936 | - | - | - | - | - |
| Stage 2 | 894 | - | - | - | - | - |

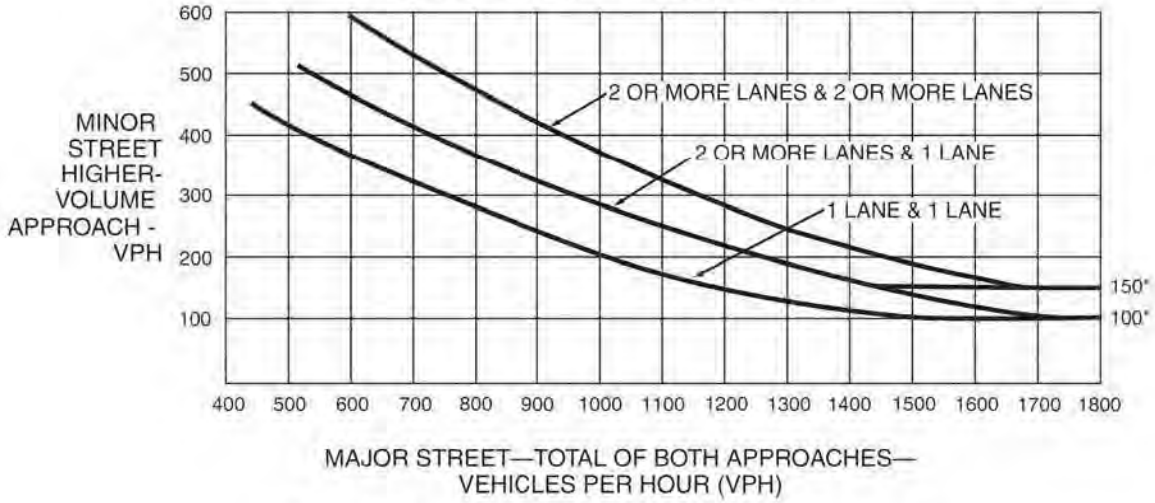
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.4 | 0.2 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1509 | - | 841 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.028 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.4 | - | - |
| HCM Lane LOS | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

# SIGNAL WARRANTS

KDA

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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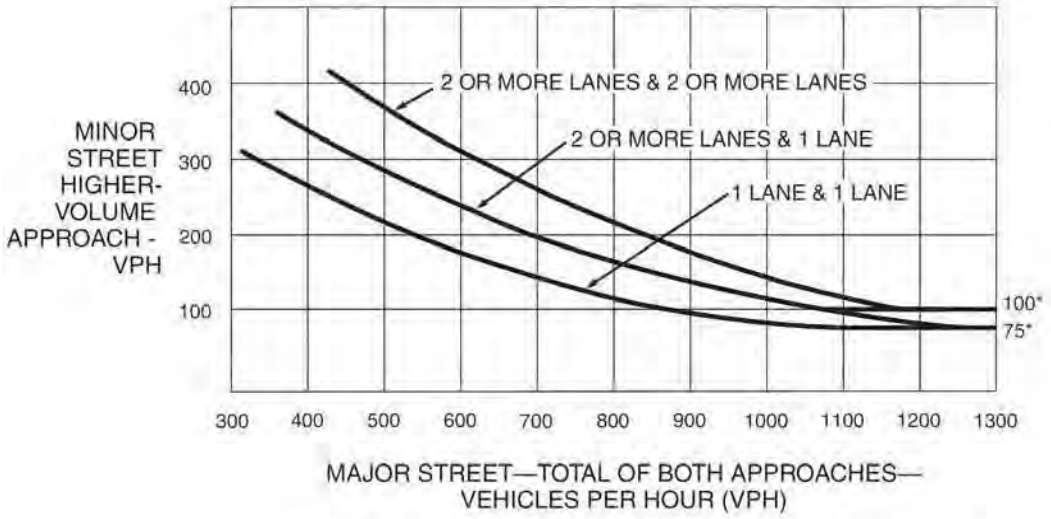
**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

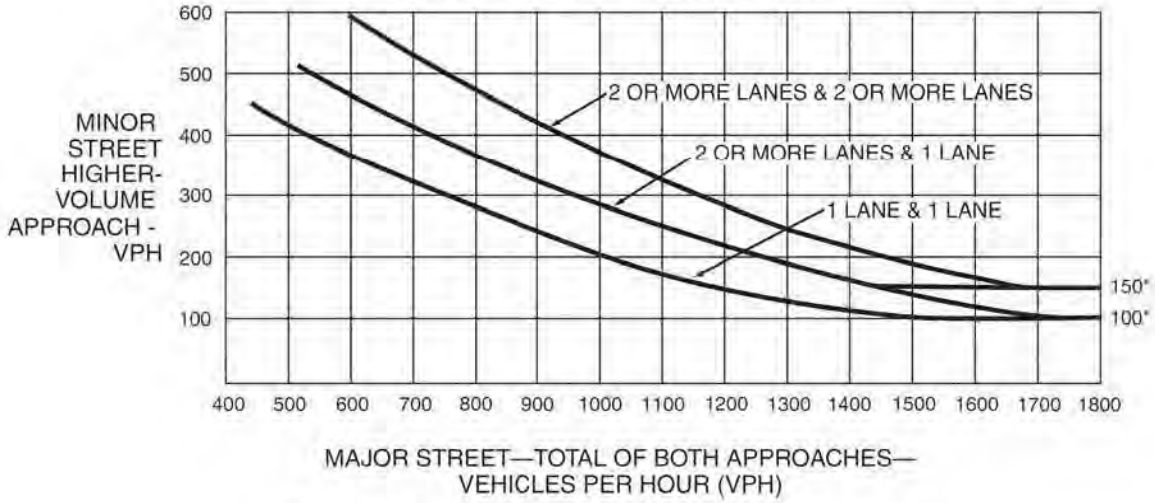



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – LONE STAR RD : EXISTING

SAT (●) : MAJOR 2254 MINOR 44
PM (■) : MAJOR 3076 MINOR 54

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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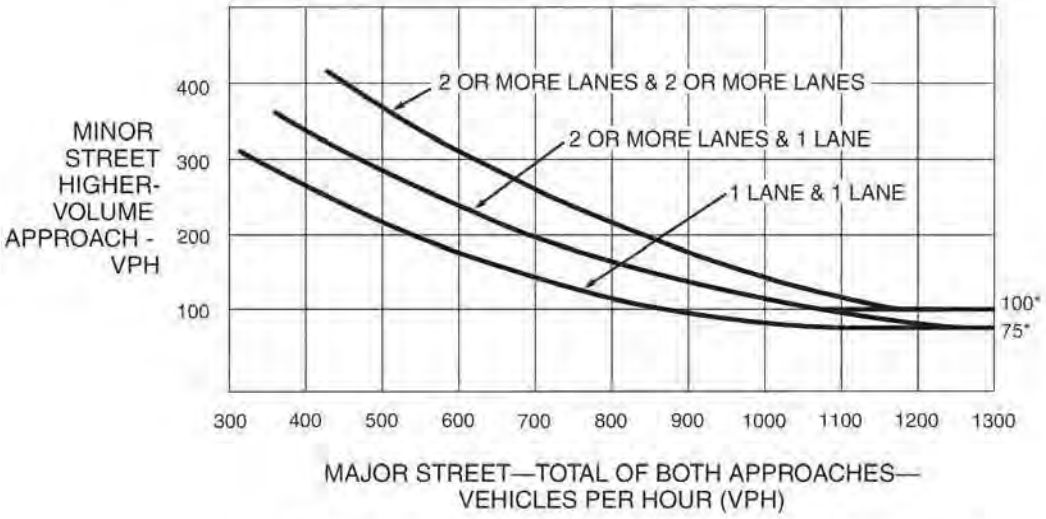
**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**



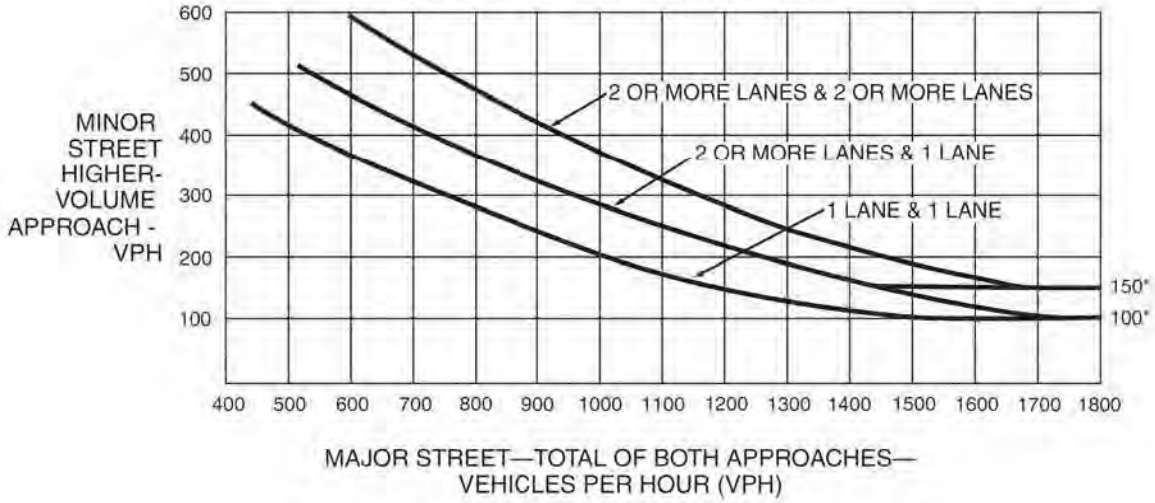

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

● ■

SR 49 – CRAMER RD : EXISTING

SAT (●) : MAJOR 2506 MINOR 20
PM (■) : MAJOR 2802 MINOR 27

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

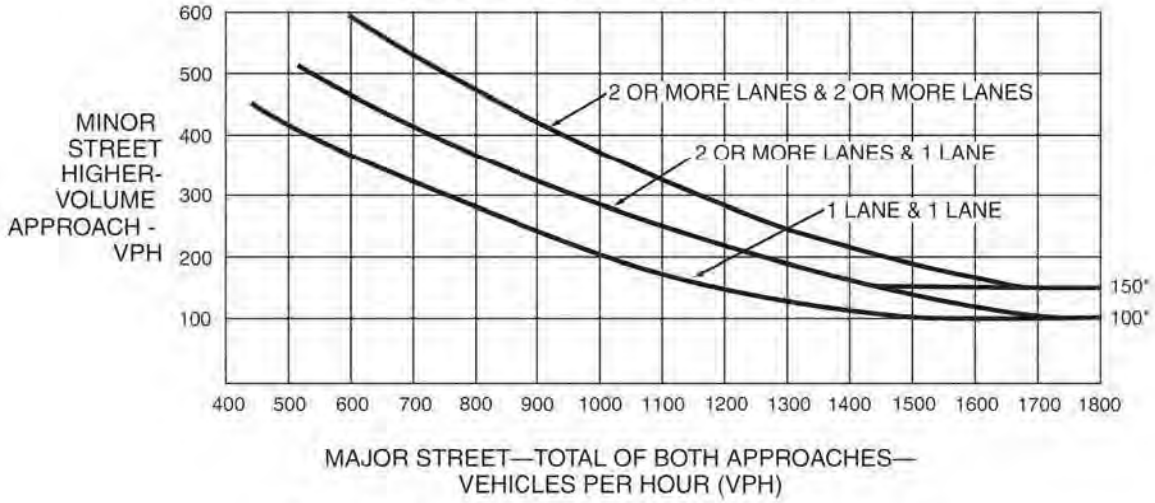
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – LONE STAR RD : EXISTING PLUS PROJECT

SAT (●) : MAJOR 2290 MINOR 85
PM (■) : MAJOR 3097 MINOR 74

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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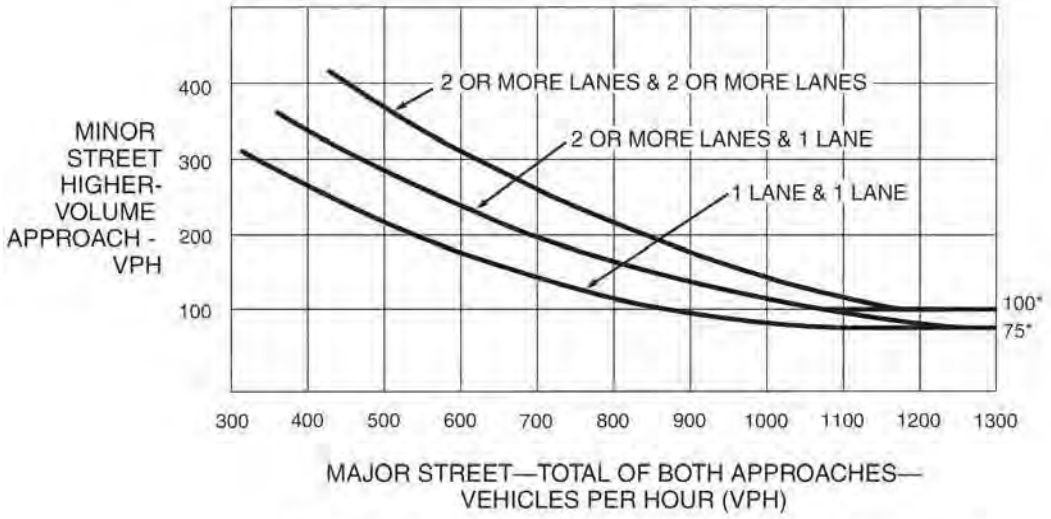
**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

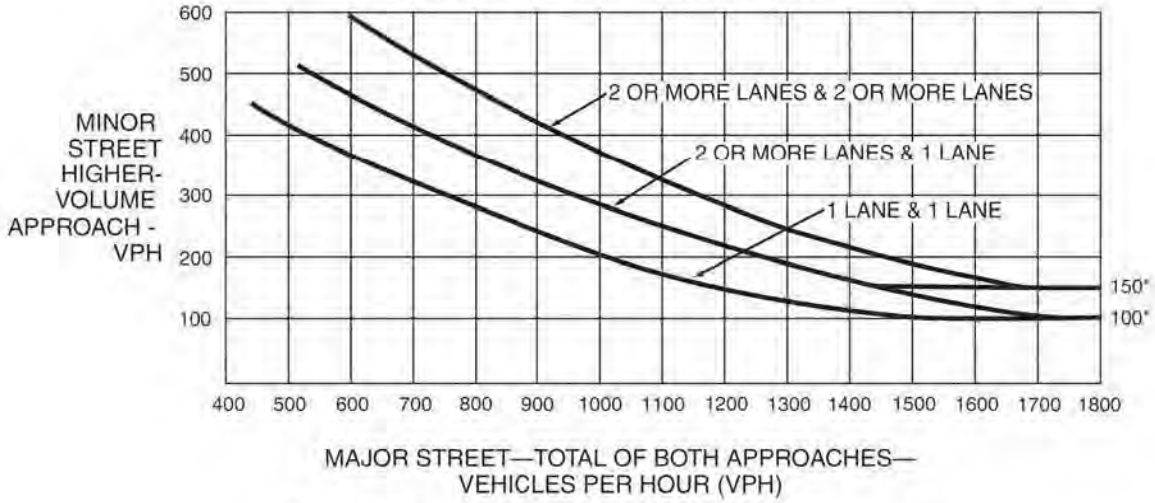



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – CRAMER RD : EXISTING PLUS PROJECT

SAT (●) : MAJOR 2587 MINOR 49
PM (■) : MAJOR 2837 MINOR 42

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

---

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

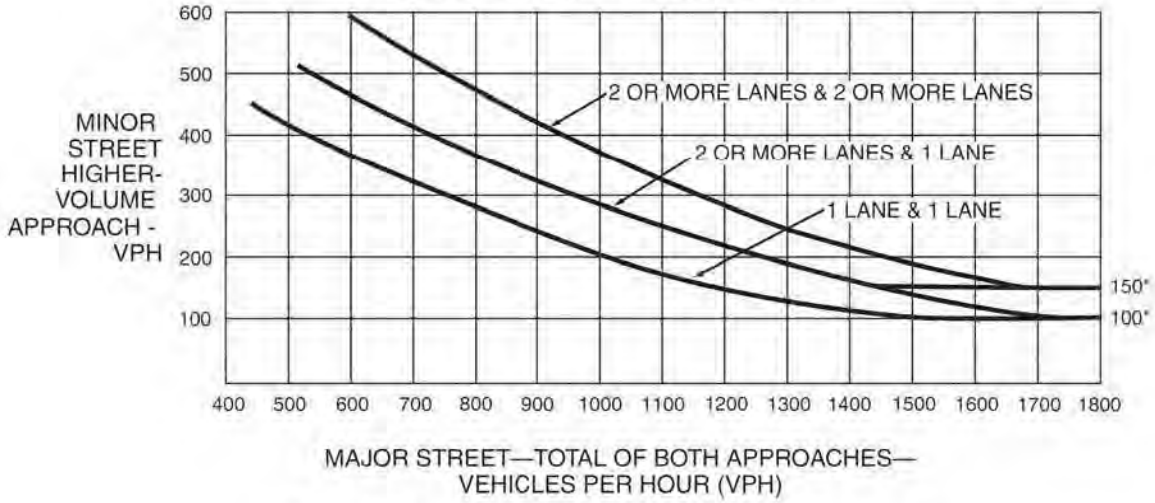
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – LONE STAR RD : CUMULATIVE

SAT (●) : MAJOR 3413 MINOR 65
PM (■) : MAJOR 4636 MINOR 82

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

---

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

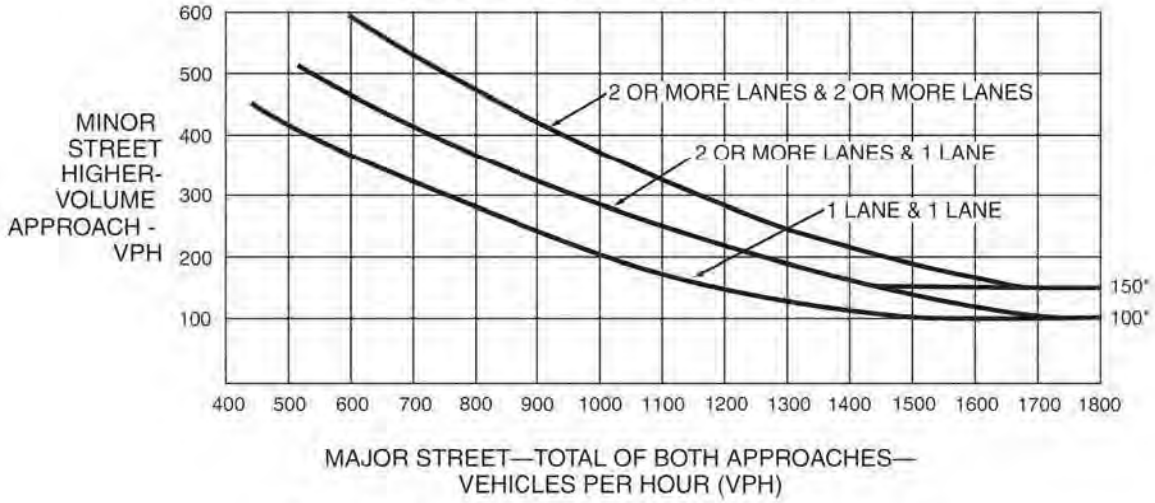
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – CRAMER RD : CUMULATIVE

SAT (●) : MAJOR 3827 MINOR 33
PM (■) : MAJOR 4247 MINOR 65

**Figure 4C-3. Warrant 3, Peak Hour**

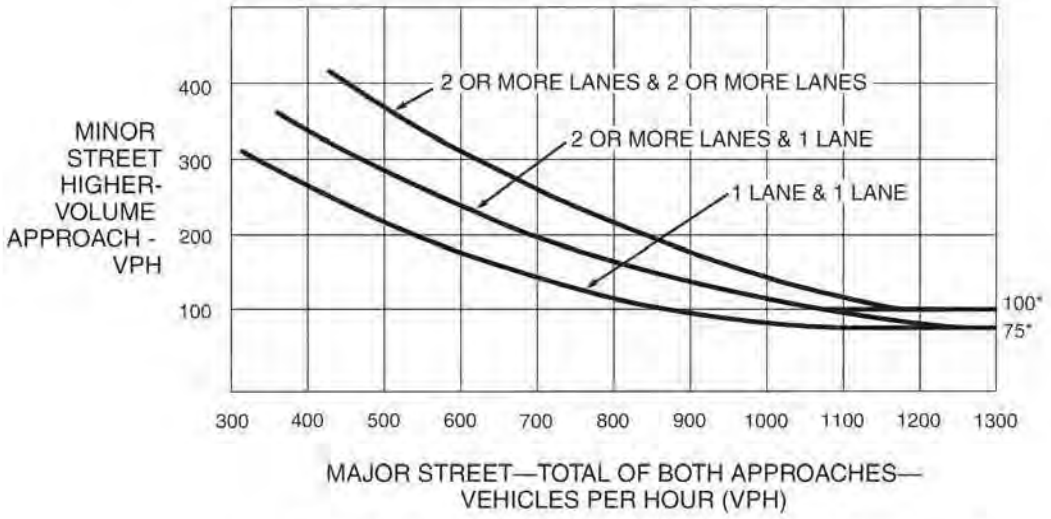



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

---

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

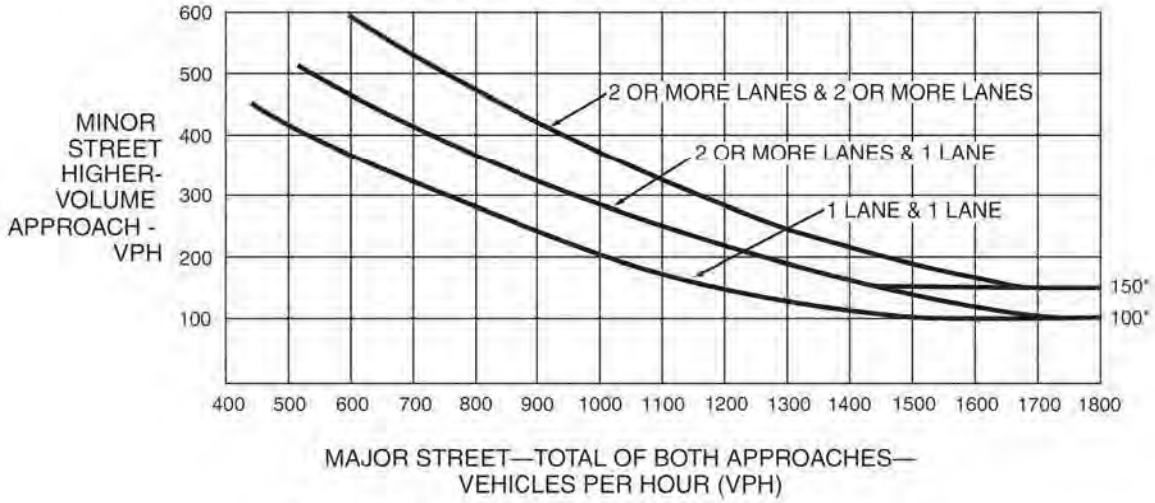



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – LONE STAR RD : CUMULATIVE PLUS PROJECT

SAT (●) : MAJOR 3446 MINOR 107
PM (■) : MAJOR 4653 MINOR 100

**Figure 4C-3. Warrant 3, Peak Hour**




*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

---

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

SR 49 – CRAMER RD : CUMULATIVE PLUS PROJECT

SAT (●) : MAJOR 3903 MINOR 62
PM (■) : MAJOR 4278 MINOR 80

# APPENDIX E

CalEEMod Air Quality Emissions Modeling

CalEEMod Air Quality Emissions Modeling–Annual

# Hidden Falls Regional Park SEIR

**Placer-Mountain Counties County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 13.00 | Acre | 13.00 | 566,280.00 | 0 |
| City Park | 60.00 | Acre | 60.00 | 2,613,600.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 74 |
| **Climate Zone** | 2 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 294 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Corporate Responsibility and Sustainability Report Together, Building a Better California
2018
http://www.pgecorp.com/corp_responsibility/reports/2018/assets/PGE_CRSR_2018.pdf

Land Use - Project Description.

Construction Phase - Project Description.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Project Description.

Grading - Project Description.

Vehicle Trips - From Comment on Annual CalEEMod Report (Page 20). Assumed Sunday trips same as Saturday trips.

Energy Use -

Water And Wastewater - Project Description.

Solid Waste -

Land Use Change - Project Description.

Stationary Sources - Emergency Generators and Fire Pumps - 50 hours for testing and maintenance. Source to be confirmed??

Operational Off-Road Equipment -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblGrading | AcresOfGrading | 275.00 | 41.00 |
| tblGrading | AcresOfGrading | 0.00 | 60.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 294 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 470.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerDay | 0.00 | 2.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerYear | 0.00 | 50.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |
| tblVehicleTrips | CC_TL | 6.60 | 0.00 |
| tblVehicleTrips | CC_TL | 6.60 | 44.00 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | CC_TTP | 48.00 | 0.00 |
| tblVehicleTrips | CC_TTP | 0.00 | 90.00 |
| tblVehicleTrips | CNW_TL | 6.60 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.60 | 15.00 |
| tblVehicleTrips | CNW_TTP | 19.00 | 0.00 |
| tblVehicleTrips | CNW_TTP | 0.00 | 5.00 |
| tblVehicleTrips | CW_TL | 14.70 | 0.00 |
| tblVehicleTrips | CW_TL | 14.70 | 15.00 |
| tblVehicleTrips | CW_TTP | 33.00 | 0.00 |
| tblVehicleTrips | CW_TTP | 0.00 | 5.00 |
| tblVehicleTrips | DV_TP | 28.00 | 0.00 |
| tblVehicleTrips | DV_TP | 0.00 | 11.00 |
| tblVehicleTrips | PB_TP | 6.00 | 0.00 |
| tblVehicleTrips | PB_TP | 0.00 | 3.00 |
| tblVehicleTrips | PR_TP | 66.00 | 0.00 |
| tblVehicleTrips | PR_TP | 0.00 | 86.00 |
| tblVehicleTrips | ST_TR | 22.75 | 0.00 |
| tblVehicleTrips | ST_TR | 0.00 | 156.62 |
| tblVehicleTrips | SU_TR | 16.74 | 0.00 |
| tblVehicleTrips | SU_TR | 0.00 | 156.62 |
| tblVehicleTrips | WD_TR | 1.89 | 0.00 |
| tblVehicleTrips | WD_TR | 0.00 | 72.62 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2020 | 0.9167 | 8.2943 | 6.6431 | 0.0224 | 1.8497 | 0.2459 | 2.0956 | 0.6842 | 0.2280 | 0.9121 | 0.0000 | 2,039.8314 | 2,039.8314 | 0.2081 | 0.0000 | 2,045.0339 |
| 2021 | 1.2360 | 9.9980 | 9.5018 | 0.0411 | 2.5303 | 0.1539 | 2.6842 | 0.6827 | 0.1447 | 0.8274 | 0.0000 | 3,786.1733 | 3,786.1733 | 0.1976 | 0.0000 | 3,791.1135 |
| 2022 | 1.1439 | 9.3152 | 8.8770 | 0.0401 | 2.5206 | 0.1313 | 2.6519 | 0.6801 | 0.1235 | 0.8036 | 0.0000 | 3,693.6637 | 3,693.6637 | 0.1878 | 0.0000 | 3,698.3587 |
| 2023 | 1.0386 | 7.9656 | 8.2643 | 0.0391 | 2.5206 | 0.1094 | 2.6299 | 0.6801 | 0.1027 | 0.7828 | 0.0000 | 3,598.8478 | 3,598.8478 | 0.1622 | 0.0000 | 3,602.9019 |
| 2024 | 0.8529 | 6.6644 | 6.8779 | 0.0325 | 2.1078 | 0.0920 | 2.1999 | 0.5687 | 0.0862 | 0.6549 | 0.0000 | 2,989.2302 | 2,989.2302 | 0.1456 | 0.0000 | 2,992.8706 |
| 2025 | 0.0213 | 0.1292 | 0.2243 | 3.6000e-004 | 2.7500e-003 | 6.2900e-003 | 9.0400e-003 | 7.3000e-004 | 5.7900e-003 | 6.5200e-003 | 0.0000 | 31.9634 | 31.9634 | 9.7400e-003 | 0.0000 | 32.2070 |
| **Maximum** | **1.2360** | **9.9980** | **9.5018** | **0.0411** | **2.5303** | **0.2459** | **2.6842** | **0.6842** | **0.2280** | **0.9121** | **0.0000** | **3,786.1733** | **3,786.1733** | **0.2081** | **0.0000** | **3,791.1135** |

## 2.1 Overall Construction

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2020 | 0.9167 | 8.2943 | 6.6431 | 0.0224 | 1.8497 | 0.2459 | 2.0956 | 0.6842 | 0.2280 | 0.9121 | 0.0000 | 2,039.8308 | 2,039.8308 | 0.2081 | 0.0000 | 2,045.0333 |
| 2021 | 1.2360 | 9.9980 | 9.5018 | 0.0411 | 2.5303 | 0.1539 | 2.6842 | 0.6827 | 0.1447 | 0.8274 | 0.0000 | 3,786.1730 | 3,786.1730 | 0.1976 | 0.0000 | 3,791.1131 |
| 2022 | 1.1439 | 9.3152 | 8.8770 | 0.0401 | 2.5206 | 0.1313 | 2.6519 | 0.6801 | 0.1235 | 0.8036 | 0.0000 | 3,693.6633 | 3,693.6633 | 0.1878 | 0.0000 | 3,698.3583 |
| 2023 | 1.0386 | 7.9656 | 8.2643 | 0.0391 | 2.5206 | 0.1094 | 2.6299 | 0.6801 | 0.1027 | 0.7828 | 0.0000 | 3,598.8475 | 3,598.8475 | 0.1622 | 0.0000 | 3,602.9015 |
| 2024 | 0.8529 | 6.6644 | 6.8779 | 0.0325 | 2.1078 | 0.0920 | 2.1999 | 0.5687 | 0.0862 | 0.6549 | 0.0000 | 2,989.2298 | 2,989.2298 | 0.1456 | 0.0000 | 2,992.8702 |
| 2025 | 0.0213 | 0.1292 | 0.2243 | 3.6000e-004 | 2.7500e-003 | 6.2900e-003 | 9.0400e-003 | 7.3000e-004 | 5.7900e-003 | 6.5200e-003 | 0.0000 | 31.9633 | 31.9633 | 9.7400e-003 | 0.0000 | 32.2069 |
| **Maximum** | **1.2360** | **9.9980** | **9.5018** | **0.0411** | **2.5303** | **0.2459** | **2.6842** | **0.6842** | **0.2280** | **0.9121** | **0.0000** | **3,786.1730** | **3,786.1730** | **0.2081** | **0.0000** | **3,791.1131** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| **1** | **1-1-2020** | **3-31-2020** | 1.6187 | 1.6187 |
| **2** | **4-1-2020** | **6-30-2020** | 1.7815 | 1.7815 |
| **3** | **7-1-2020** | **9-30-2020** | 2.6764 | 2.6764 |
| **4** | **10-1-2020** | **12-31-2020** | 3.1182 | 3.1182 |
| **5** | **1-1-2021** | **3-31-2021** | 2.7926 | 2.7926 |

| | | | | |
|---|---|---|---|---|
| **6** | **4-1-2021** | **6-30-2021** | 2.7763 | 2.7763 |
| **7** | **7-1-2021** | **9-30-2021** | 2.8068 | 2.8068 |
| **8** | **10-1-2021** | **12-31-2021** | 2.8546 | 2.8546 |
| **9** | **1-1-2022** | **3-31-2022** | 2.6090 | 2.6090 |
| **10** | **4-1-2022** | **6-30-2022** | 2.5967 | 2.5967 |
| **11** | **7-1-2022** | **9-30-2022** | 2.6253 | 2.6253 |
| **12** | **10-1-2022** | **12-31-2022** | 2.6669 | 2.6669 |
| **13** | **1-1-2023** | **3-31-2023** | 2.2490 | 2.2490 |
| **14** | **4-1-2023** | **6-30-2023** | 2.2394 | 2.2394 |
| **15** | **7-1-2023** | **9-30-2023** | 2.2640 | 2.2640 |
| **16** | **10-1-2023** | **12-31-2023** | 2.2990 | 2.2990 |
| **17** | **1-1-2024** | **3-31-2024** | 2.1983 | 2.1983 |
| **18** | **4-1-2024** | **6-30-2024** | 2.1665 | 2.1665 |
| **19** | **7-1-2024** | **9-30-2024** | 2.1903 | 2.1903 |
| **20** | **10-1-2024** | **12-31-2024** | 0.9496 | 0.9496 |
| **21** | **1-1-2025** | **3-31-2025** | 0.1507 | 0.1507 |
| | | **Highest** | 3.1182 | 3.1182 |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0778 | 1.0000e-005 | 6.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.3000e-003 | 1.3000e-003 | 0.0000 | 0.0000 | 1.3900e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 66.4549 | 66.4549 | 6.5600e-003 | 1.3600e-003 | 67.0229 |
| Mobile | 0.7410 | 5.3814 | 13.4785 | 0.0685 | 6.2001 | 0.0471 | 6.2472 | 1.6678 | 0.0441 | 1.7119 | 0.0000 | 6,302.6799 | 6,302.6799 | 0.1412 | 0.0000 | 6,306.2108 |
| Stationary | 0.1034 | 9.9500e-003 | 0.2692 | 4.0000e-005 | | 5.7000e-004 | 5.7000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 5.9918 | 5.9918 | 0.0125 | 0.0000 | 6.3050 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.0474 | 0.0000 | 1.0474 | 0.0619 | 0.0000 | 2.5950 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 33.3672 | 33.3672 | 3.2900e-003 | 6.8000e-004 | 33.6524 |
| **Total** | **0.9222** | **5.3914** | **13.7484** | **0.0685** | **6.2001** | **0.0477** | **6.2478** | **1.6678** | **0.0446** | **1.7124** | **1.0474** | **6,408.4951** | **6,409.5425** | **0.2255** | **2.0400e-003** | **6,415.7874** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0778 | 1.0000e-005 | 6.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.3000e-003 | 1.3000e-003 | 0.0000 | 0.0000 | 1.3900e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 66.4549 | 66.4549 | 6.5600e-003 | 1.3600e-003 | 67.0229 |
| Mobile | 0.7410 | 5.3814 | 13.4785 | 0.0685 | 6.2001 | 0.0471 | 6.2472 | 1.6678 | 0.0441 | 1.7119 | 0.0000 | 6,302.6799 | 6,302.6799 | 0.1412 | 0.0000 | 6,306.2108 |
| Stationary | 0.1034 | 9.9500e-003 | 0.2692 | 4.0000e-005 | | 5.7000e-004 | 5.7000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 5.9918 | 5.9918 | 0.0125 | 0.0000 | 6.3050 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 1.0474 | 0.0000 | 1.0474 | 0.0619 | 0.0000 | 2.5950 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 33.3672 | 33.3672 | 3.2900e-003 | 6.8000e-004 | 33.6524 |
| **Total** | **0.9222** | **5.3914** | **13.7484** | **0.0685** | **6.2001** | **0.0477** | **6.2478** | **1.6678** | **0.0446** | **1.7124** | **1.0474** | **6,408.4951** | **6,409.5425** | **0.2255** | **2.0400e-003** | **6,415.7874** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.3 Vegetation

**Vegetation**

| | CO2e |
|---|---|
| Category | MT |
| Vegetation Land Change | 0.0000 |
| **Total** | **0.0000** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Site Preparation | 1/1/2020 | 2/25/2020 | 5 | 40 | |
| 2 | Grading | Grading | 2/26/2020 | 7/28/2020 | 5 | 110 | |
| 3 | Construction | Building Construction | 7/29/2020 | 10/29/2024 | 5 | 1110 | |
| 4 | Paving | Paving | 10/30/2024 | 2/11/2025 | 5 | 75 | |

**Acres of Grading (Site Preparation Phase): 60**

**Acres of Grading (Grading Phase): 41**

**Acres of Paving: 13**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Construction | 9 | 1,336.00 | 521.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Site Preparation - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3931 | 0.0000 | 0.3931 | 0.2021 | 0.0000 | 0.2021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0815 | 0.8484 | 0.4303 | 7.6000e-004 | | 0.0440 | 0.0440 | | 0.0404 | 0.0404 | 0.0000 | 66.8614 | 66.8614 | 0.0216 | 0.0000 | 67.4020 |
| **Total** | **0.0815** | **0.8484** | **0.4303** | **7.6000e-004** | **0.3931** | **0.0440** | **0.4371** | **0.2021** | **0.0404** | **0.2425** | **0.0000** | **66.8614** | **66.8614** | **0.0216** | **0.0000** | **67.4020** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.7500e-003 | 1.2900e-003 | 0.0135 | 4.0000e-005 | 4.4000e-003 | 3.0000e-005 | 4.4200e-003 | 1.1700e-003 | 3.0000e-005 | 1.2000e-003 | 0.0000 | 3.7552 | 3.7552 | 9.0000e-005 | 0.0000 | 3.7575 |
| **Total** | **1.7500e-003** | **1.2900e-003** | **0.0135** | **4.0000e-005** | **4.4000e-003** | **3.0000e-005** | **4.4200e-003** | **1.1700e-003** | **3.0000e-005** | **1.2000e-003** | **0.0000** | **3.7552** | **3.7552** | **9.0000e-005** | **0.0000** | **3.7575** |

## 3.2 Site Preparation - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3931 | 0.0000 | 0.3931 | 0.2021 | 0.0000 | 0.2021 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0815 | 0.8484 | 0.4303 | 7.6000e-004 | | 0.0440 | 0.0440 | | 0.0404 | 0.0404 | 0.0000 | 66.8613 | 66.8613 | 0.0216 | 0.0000 | 67.4019 |
| **Total** | **0.0815** | **0.8484** | **0.4303** | **7.6000e-004** | **0.3931** | **0.0440** | **0.4371** | **0.2021** | **0.0404** | **0.2425** | **0.0000** | **66.8613** | **66.8613** | **0.0216** | **0.0000** | **67.4019** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.7500e-003 | 1.2900e-003 | 0.0135 | 4.0000e-005 | 4.4000e-003 | 3.0000e-005 | 4.4200e-003 | 1.1700e-003 | 3.0000e-005 | 1.2000e-003 | 0.0000 | 3.7552 | 3.7552 | 9.0000e-005 | 0.0000 | 3.7575 |
| **Total** | **1.7500e-003** | **1.2900e-003** | **0.0135** | **4.0000e-005** | **4.4000e-003** | **3.0000e-005** | **4.4200e-003** | **1.1700e-003** | **3.0000e-005** | **1.2000e-003** | **0.0000** | **3.7552** | **3.7552** | **9.0000e-005** | **0.0000** | **3.7575** |

## 3.3 Grading - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3530 | 0.0000 | 0.3530 | 0.1844 | 0.0000 | 0.1844 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.2448 | 2.7609 | 1.7577 | 3.4100e-003 | | 0.1196 | 0.1196 | | 0.1100 | 0.1100 | 0.0000 | 299.6636 | 299.6636 | 0.0969 | 0.0000 | 302.0865 |
| **Total** | **0.2448** | **2.7609** | **1.7577** | **3.4100e-003** | **0.3530** | **0.1196** | **0.4725** | **0.1844** | **0.1100** | **0.2944** | **0.0000** | **299.6636** | **299.6636** | **0.0969** | **0.0000** | **302.0865** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.3300e-003 | 3.9400e-003 | 0.0412 | 1.3000e-004 | 0.0134 | 9.0000e-005 | 0.0135 | 3.5700e-003 | 8.0000e-005 | 3.6500e-003 | 0.0000 | 11.4743 | 11.4743 | 2.7000e-004 | 0.0000 | 11.4811 |
| **Total** | **5.3300e-003** | **3.9400e-003** | **0.0412** | **1.3000e-004** | **0.0134** | **9.0000e-005** | **0.0135** | **3.5700e-003** | **8.0000e-005** | **3.6500e-003** | **0.0000** | **11.4743** | **11.4743** | **2.7000e-004** | **0.0000** | **11.4811** |

## 3.3 Grading - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3530 | 0.0000 | 0.3530 | 0.1844 | 0.0000 | 0.1844 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.2448 | 2.7609 | 1.7577 | 3.4100e-003 | | 0.1196 | 0.1196 | | 0.1100 | 0.1100 | 0.0000 | 299.6633 | 299.6633 | 0.0969 | 0.0000 | 302.0862 |
| **Total** | **0.2448** | **2.7609** | **1.7577** | **3.4100e-003** | **0.3530** | **0.1196** | **0.4725** | **0.1844** | **0.1100** | **0.2944** | **0.0000** | **299.6633** | **299.6633** | **0.0969** | **0.0000** | **302.0862** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.3300e-003 | 3.9400e-003 | 0.0412 | 1.3000e-004 | 0.0134 | 9.0000e-005 | 0.0135 | 3.5700e-003 | 8.0000e-005 | 3.6500e-003 | 0.0000 | 11.4743 | 11.4743 | 2.7000e-004 | 0.0000 | 11.4811 |
| **Total** | **5.3300e-003** | **3.9400e-003** | **0.0412** | **1.3000e-004** | **0.0134** | **9.0000e-005** | **0.0135** | **3.5700e-003** | **8.0000e-005** | **3.6500e-003** | **0.0000** | **11.4743** | **11.4743** | **2.7000e-004** | **0.0000** | **11.4811** |

## 3.4 Construction - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1187 | 1.0744 | 0.9435 | 1.5100e-003 | | 0.0626 | 0.0626 | | 0.0588 | 0.0588 | 0.0000 | 129.7016 | 129.7016 | 0.0316 | 0.0000 | 130.4927 |
| **Total** | **0.1187** | **1.0744** | **0.9435** | **1.5100e-003** | | **0.0626** | **0.0626** | | **0.0588** | **0.0588** | **0.0000** | **129.7016** | **129.7016** | **0.0316** | **0.0000** | **130.4927** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1018 | 3.3376 | 0.6570 | 7.8800e-003 | 0.1723 | 0.0139 | 0.1861 | 0.0499 | 0.0133 | 0.0631 | 0.0000 | 747.9541 | 747.9541 | 0.0391 | 0.0000 | 748.9324 |
| Worker | 0.3628 | 0.2678 | 2.8000 | 8.6300e-003 | 0.9135 | 5.8100e-003 | 0.9193 | 0.2431 | 5.3600e-003 | 0.2484 | 0.0000 | 780.4212 | 780.4212 | 0.0184 | 0.0000 | 780.8818 |
| **Total** | **0.4646** | **3.6054** | **3.4570** | **0.0165** | **1.0858** | **0.0197** | **1.1055** | **0.2930** | **0.0186** | **0.3116** | **0.0000** | **1,528.3752** | **1,528.3752** | **0.0576** | **0.0000** | **1,529.8142** |

## 3.4 Construction - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1187 | 1.0744 | 0.9435 | 1.5100e-003 | | 0.0626 | 0.0626 | | 0.0588 | 0.0588 | 0.0000 | 129.7014 | 129.7014 | 0.0316 | 0.0000 | 130.4925 |
| **Total** | **0.1187** | **1.0744** | **0.9435** | **1.5100e-003** | | **0.0626** | **0.0626** | | **0.0588** | **0.0588** | **0.0000** | **129.7014** | **129.7014** | **0.0316** | **0.0000** | **130.4925** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1018 | 3.3376 | 0.6570 | 7.8800e-003 | 0.1723 | 0.0139 | 0.1861 | 0.0499 | 0.0133 | 0.0631 | 0.0000 | 747.9541 | 747.9541 | 0.0391 | 0.0000 | 748.9324 |
| Worker | 0.3628 | 0.2678 | 2.8000 | 8.6300e-003 | 0.9135 | 5.8100e-003 | 0.9193 | 0.2431 | 5.3600e-003 | 0.2484 | 0.0000 | 780.4212 | 780.4212 | 0.0184 | 0.0000 | 780.8818 |
| **Total** | **0.4646** | **3.6054** | **3.4570** | **0.0165** | **1.0858** | **0.0197** | **1.1055** | **0.2930** | **0.0186** | **0.3116** | **0.0000** | **1,528.3752** | **1,528.3752** | **0.0576** | **0.0000** | **1,529.8142** |

## 3.4 Construction - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2481 | 2.2749 | 2.1631 | 3.5100e-003 | | 0.1251 | 0.1251 | | 0.1176 | 0.1176 | 0.0000 | 302.2867 | 302.2867 | 0.0729 | 0.0000 | 304.1099 |
| **Total** | **0.2481** | **2.2749** | **2.1631** | **3.5100e-003** | | **0.1251** | **0.1251** | | **0.1176** | **0.1176** | **0.0000** | **302.2867** | **302.2867** | **0.0729** | **0.0000** | **304.1099** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1997 | 7.1636 | 1.3622 | 0.0182 | 0.4015 | 0.0156 | 0.4171 | 0.1162 | 0.0150 | 0.1312 | 0.0000 | 1,729.2817 | 1,729.2817 | 0.0862 | 0.0000 | 1,731.4378 |
| Worker | 0.7882 | 0.5595 | 5.9766 | 0.0194 | 2.1288 | 0.0132 | 2.1420 | 0.5665 | 0.0122 | 0.5786 | 0.0000 | 1,754.6050 | 1,754.6050 | 0.0384 | 0.0000 | 1,755.5659 |
| **Total** | **0.9880** | **7.7231** | **7.3388** | **0.0376** | **2.5303** | **0.0288** | **2.5591** | **0.6827** | **0.0271** | **0.7098** | **0.0000** | **3,483.8867** | **3,483.8867** | **0.1247** | **0.0000** | **3,487.0036** |

## 3.4 Construction - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2481 | 2.2749 | 2.1631 | 3.5100e-003 | | 0.1251 | 0.1251 | | 0.1176 | 0.1176 | 0.0000 | 302.2863 | 302.2863 | 0.0729 | 0.0000 | 304.1095 |
| **Total** | **0.2481** | **2.2749** | **2.1631** | **3.5100e-003** | | **0.1251** | **0.1251** | | **0.1176** | **0.1176** | **0.0000** | **302.2863** | **302.2863** | **0.0729** | **0.0000** | **304.1095** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1997 | 7.1636 | 1.3622 | 0.0182 | 0.4015 | 0.0156 | 0.4171 | 0.1162 | 0.0150 | 0.1312 | 0.0000 | 1,729.2817 | 1,729.2817 | 0.0862 | 0.0000 | 1,731.4378 |
| Worker | 0.7882 | 0.5595 | 5.9766 | 0.0194 | 2.1288 | 0.0132 | 2.1420 | 0.5665 | 0.0122 | 0.5786 | 0.0000 | 1,754.6050 | 1,754.6050 | 0.0384 | 0.0000 | 1,755.5659 |
| **Total** | **0.9880** | **7.7231** | **7.3388** | **0.0376** | **2.5303** | **0.0288** | **2.5591** | **0.6827** | **0.0271** | **0.7098** | **0.0000** | **3,483.8867** | **3,483.8867** | **0.1247** | **0.0000** | **3,487.0036** |

## 3.4 Construction - 2022

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2218 | 2.0300 | 2.1272 | 3.5000e-003 | | 0.1052 | 0.1052 | | 0.0990 | 0.0990 | 0.0000 | 301.2428 | 301.2428 | 0.0722 | 0.0000 | 303.0471 |
| **Total** | **0.2218** | **2.0300** | **2.1272** | **3.5000e-003** | | **0.1052** | **0.1052** | | **0.0990** | **0.0990** | **0.0000** | **301.2428** | **301.2428** | **0.0722** | **0.0000** | **303.0471** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1851 | 6.7833 | 1.2590 | 0.0180 | 0.3999 | 0.0133 | 0.4133 | 0.1158 | 0.0128 | 0.1285 | 0.0000 | 1,708.6060 | 1,708.6060 | 0.0812 | 0.0000 | 1,710.6367 |
| Worker | 0.7370 | 0.5019 | 5.4908 | 0.0186 | 2.1207 | 0.0128 | 2.1335 | 0.5643 | 0.0118 | 0.5761 | 0.0000 | 1,683.8149 | 1,683.8149 | 0.0344 | 0.0000 | 1,684.6749 |
| **Total** | **0.9221** | **7.2852** | **6.7498** | **0.0366** | **2.5206** | **0.0262** | **2.5468** | **0.6801** | **0.0246** | **0.7047** | **0.0000** | **3,392.4209** | **3,392.4209** | **0.1156** | **0.0000** | **3,395.3116** |

## 3.4 Construction - 2022

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2218 | 2.0300 | 2.1272 | 3.5000e-003 | | 0.1052 | 0.1052 | | 0.0990 | 0.0990 | 0.0000 | 301.2425 | 301.2425 | 0.0722 | 0.0000 | 303.0467 |
| **Total** | **0.2218** | **2.0300** | **2.1272** | **3.5000e-003** | | **0.1052** | **0.1052** | | **0.0990** | **0.0990** | **0.0000** | **301.2425** | **301.2425** | **0.0722** | **0.0000** | **303.0467** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1851 | 6.7833 | 1.2590 | 0.0180 | 0.3999 | 0.0133 | 0.4133 | 0.1158 | 0.0128 | 0.1285 | 0.0000 | 1,708.6060 | 1,708.6060 | 0.0812 | 0.0000 | 1,710.6367 |
| Worker | 0.7370 | 0.5019 | 5.4908 | 0.0186 | 2.1207 | 0.0128 | 2.1335 | 0.5643 | 0.0118 | 0.5761 | 0.0000 | 1,683.8149 | 1,683.8149 | 0.0344 | 0.0000 | 1,684.6749 |
| **Total** | **0.9221** | **7.2852** | **6.7498** | **0.0366** | **2.5206** | **0.0262** | **2.5468** | **0.6801** | **0.0246** | **0.7047** | **0.0000** | **3,392.4209** | **3,392.4209** | **0.1156** | **0.0000** | **3,395.3116** |

## 3.4 Construction - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2045 | 1.8700 | 2.1117 | 3.5000e-003 | | 0.0910 | 0.0910 | | 0.0856 | 0.0856 | 0.0000 | 301.3462 | 301.3462 | 0.0717 | 0.0000 | 303.1383 |
| **Total** | **0.2045** | **1.8700** | **2.1117** | **3.5000e-003** | | **0.0910** | **0.0910** | | **0.0856** | **0.0856** | **0.0000** | **301.3462** | **301.3462** | **0.0717** | **0.0000** | **303.1383** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1413 | 5.6430 | 1.0920 | 0.0177 | 0.3999 | 5.8200e-003 | 0.4057 | 0.1158 | 5.5600e-003 | 0.1214 | 0.0000 | 1,677.8697 | 1,677.8697 | 0.0596 | 0.0000 | 1,679.3603 |
| Worker | 0.6929 | 0.4527 | 5.0606 | 0.0179 | 2.1207 | 0.0126 | 2.1332 | 0.5643 | 0.0116 | 0.5759 | 0.0000 | 1,619.6320 | 1,619.6320 | 0.0309 | 0.0000 | 1,620.4032 |
| **Total** | **0.8341** | **6.0956** | **6.1526** | **0.0356** | **2.5206** | **0.0184** | **2.5390** | **0.6801** | **0.0171** | **0.6972** | **0.0000** | **3,297.5017** | **3,297.5017** | **0.0905** | **0.0000** | **3,299.7635** |

## 3.4 Construction - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2045 | 1.8700 | 2.1117 | 3.5000e-003 | | 0.0910 | 0.0910 | | 0.0856 | 0.0856 | 0.0000 | 301.3458 | 301.3458 | 0.0717 | 0.0000 | 303.1380 |
| **Total** | **0.2045** | **1.8700** | **2.1117** | **3.5000e-003** | | **0.0910** | **0.0910** | | **0.0856** | **0.0856** | **0.0000** | **301.3458** | **301.3458** | **0.0717** | **0.0000** | **303.1380** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1413 | 5.6430 | 1.0920 | 0.0177 | 0.3999 | 5.8200e-003 | 0.4057 | 0.1158 | 5.5600e-003 | 0.1214 | 0.0000 | 1,677.8697 | 1,677.8697 | 0.0596 | 0.0000 | 1,679.3603 |
| Worker | 0.6929 | 0.4527 | 5.0606 | 0.0179 | 2.1207 | 0.0126 | 2.1332 | 0.5643 | 0.0116 | 0.5759 | 0.0000 | 1,619.6320 | 1,619.6320 | 0.0309 | 0.0000 | 1,620.4032 |
| **Total** | **0.8341** | **6.0956** | **6.1526** | **0.0356** | **2.5206** | **0.0184** | **2.5390** | **0.6801** | **0.0171** | **0.6972** | **0.0000** | **3,297.5017** | **3,297.5017** | **0.0905** | **0.0000** | **3,299.7635** |

## 3.4 Construction - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1597 | 1.4587 | 1.7541 | 2.9200e-003 | | 0.0665 | 0.0665 | | 0.0626 | 0.0626 | 0.0000 | 251.5563 | 251.5563 | 0.0595 | 0.0000 | 253.0434 |
| **Total** | **0.1597** | **1.4587** | **1.7541** | **2.9200e-003** | | **0.0665** | **0.0665** | | **0.0626** | **0.0626** | **0.0000** | **251.5563** | **251.5563** | **0.0595** | **0.0000** | **253.0434** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1139 | 4.6489 | 0.8676 | 0.0147 | 0.3338 | 4.6600e-003 | 0.3384 | 0.0966 | 4.4600e-003 | 0.1011 | 0.0000 | 1,390.9362 | 1,390.9362 | 0.0483 | 0.0000 | 1,392.1446 |
| Worker | 0.5456 | 0.3418 | 3.9181 | 0.0144 | 1.7699 | 0.0103 | 1.7802 | 0.4710 | 9.4500e-003 | 0.4804 | 0.0000 | 1,298.6544 | 1,298.6544 | 0.0232 | 0.0000 | 1,299.2336 |
| **Total** | **0.6595** | **4.9907** | **4.7856** | **0.0290** | **2.1037** | **0.0149** | **2.1186** | **0.5676** | **0.0139** | **0.5815** | **0.0000** | **2,689.5905** | **2,689.5905** | **0.0715** | **0.0000** | **2,691.3781** |

## 3.4 Construction - 2024

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1597 | 1.4587 | 1.7541 | 2.9200e-003 | | 0.0665 | 0.0665 | | 0.0626 | 0.0626 | 0.0000 | 251.5560 | 251.5560 | 0.0595 | 0.0000 | 253.0431 |
| **Total** | **0.1597** | **1.4587** | **1.7541** | **2.9200e-003** | | **0.0665** | **0.0665** | | **0.0626** | **0.0626** | **0.0000** | **251.5560** | **251.5560** | **0.0595** | **0.0000** | **253.0431** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.1139 | 4.6489 | 0.8676 | 0.0147 | 0.3338 | 4.6600e-003 | 0.3384 | 0.0966 | 4.4600e-003 | 0.1011 | 0.0000 | 1,390.9362 | 1,390.9362 | 0.0483 | 0.0000 | 1,392.1446 |
| Worker | 0.5456 | 0.3418 | 3.9181 | 0.0144 | 1.7699 | 0.0103 | 1.7802 | 0.4710 | 9.4500e-003 | 0.4804 | 0.0000 | 1,298.6544 | 1,298.6544 | 0.0232 | 0.0000 | 1,299.2336 |
| **Total** | **0.6595** | **4.9907** | **4.7856** | **0.0290** | **2.1037** | **0.0149** | **2.1186** | **0.5676** | **0.0139** | **0.5815** | **0.0000** | **2,689.5905** | **2,689.5905** | **0.0715** | **0.0000** | **2,691.3781** |

## 3.5 Paving - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0222 | 0.2143 | 0.3291 | 5.1000e-004 | | 0.0105 | 0.0105 | | 9.7000e-003 | 9.7000e-003 | 0.0000 | 45.0597 | 45.0597 | 0.0146 | 0.0000 | 45.4240 |
| Paving | 0.0102 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0325** | **0.2143** | **0.3291** | **5.1000e-004** | | **0.0105** | **0.0105** | | **9.7000e-003** | **9.7000e-003** | **0.0000** | **45.0597** | **45.0597** | **0.0146** | **0.0000** | **45.4240** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2700e-003 | 8.0000e-004 | 9.1200e-003 | 3.0000e-005 | 4.1200e-003 | 2.0000e-005 | 4.1400e-003 | 1.1000e-003 | 2.0000e-005 | 1.1200e-003 | 0.0000 | 3.0237 | 3.0237 | 5.0000e-005 | 0.0000 | 3.0250 |
| **Total** | **1.2700e-003** | **8.0000e-004** | **9.1200e-003** | **3.0000e-005** | **4.1200e-003** | **2.0000e-005** | **4.1400e-003** | **1.1000e-003** | **2.0000e-005** | **1.1200e-003** | **0.0000** | **3.0237** | **3.0237** | **5.0000e-005** | **0.0000** | **3.0250** |

## 3.5 Paving - 2024

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0222 | 0.2143 | 0.3291 | 5.1000e-004 | | 0.0105 | 0.0105 | | 9.7000e-003 | 9.7000e-003 | 0.0000 | 45.0596 | 45.0596 | 0.0146 | 0.0000 | 45.4240 |
| Paving | 0.0102 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0325** | **0.2143** | **0.3291** | **5.1000e-004** | | **0.0105** | **0.0105** | | **9.7000e-003** | **9.7000e-003** | **0.0000** | **45.0596** | **45.0596** | **0.0146** | **0.0000** | **45.4240** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2700e-003 | 8.0000e-004 | 9.1200e-003 | 3.0000e-005 | 4.1200e-003 | 2.0000e-005 | 4.1400e-003 | 1.1000e-003 | 2.0000e-005 | 1.1200e-003 | 0.0000 | 3.0237 | 3.0237 | 5.0000e-005 | 0.0000 | 3.0250 |
| **Total** | **1.2700e-003** | **8.0000e-004** | **9.1200e-003** | **3.0000e-005** | **4.1200e-003** | **2.0000e-005** | **4.1400e-003** | **1.1000e-003** | **2.0000e-005** | **1.1200e-003** | **0.0000** | **3.0237** | **3.0237** | **5.0000e-005** | **0.0000** | **3.0250** |

## 3.5 Paving - 2025

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0137 | 0.1287 | 0.2187 | 3.4000e-004 | | 6.2800e-003 | 6.2800e-003 | | 5.7800e-003 | 5.7800e-003 | 0.0000 | 30.0289 | 30.0289 | 9.7100e-003 | 0.0000 | 30.2717 |
| Paving | 6.8100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0205** | **0.1287** | **0.2187** | **3.4000e-004** | | **6.2800e-003** | **6.2800e-003** | | **5.7800e-003** | **5.7800e-003** | **0.0000** | **30.0289** | **30.0289** | **9.7100e-003** | **0.0000** | **30.2717** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 8.0000e-004 | 4.8000e-004 | 5.6500e-003 | 2.0000e-005 | 2.7500e-003 | 2.0000e-005 | 2.7600e-003 | 7.3000e-004 | 1.0000e-005 | 7.5000e-004 | 0.0000 | 1.9345 | 1.9345 | 3.0000e-005 | 0.0000 | 1.9353 |
| **Total** | **8.0000e-004** | **4.8000e-004** | **5.6500e-003** | **2.0000e-005** | **2.7500e-003** | **2.0000e-005** | **2.7600e-003** | **7.3000e-004** | **1.0000e-005** | **7.5000e-004** | **0.0000** | **1.9345** | **1.9345** | **3.0000e-005** | **0.0000** | **1.9353** |

## 3.5 Paving - 2025

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0137 | 0.1287 | 0.2187 | 3.4000e-004 | | 6.2800e-003 | 6.2800e-003 | | 5.7800e-003 | 5.7800e-003 | 0.0000 | 30.0289 | 30.0289 | 9.7100e-003 | 0.0000 | 30.2717 |
| Paving | 6.8100e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0205** | **0.1287** | **0.2187** | **3.4000e-004** | | **6.2800e-003** | **6.2800e-003** | | **5.7800e-003** | **5.7800e-003** | **0.0000** | **30.0289** | **30.0289** | **9.7100e-003** | **0.0000** | **30.2717** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 8.0000e-004 | 4.8000e-004 | 5.6500e-003 | 2.0000e-005 | 2.7500e-003 | 2.0000e-005 | 2.7600e-003 | 7.3000e-004 | 1.0000e-005 | 7.5000e-004 | 0.0000 | 1.9345 | 1.9345 | 3.0000e-005 | 0.0000 | 1.9353 |
| **Total** | **8.0000e-004** | **4.8000e-004** | **5.6500e-003** | **2.0000e-005** | **2.7500e-003** | **2.0000e-005** | **2.7600e-003** | **7.3000e-004** | **1.0000e-005** | **7.5000e-004** | **0.0000** | **1.9345** | **1.9345** | **3.0000e-005** | **0.0000** | **1.9353** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.7410 | 5.3814 | 13.4785 | 0.0685 | 6.2001 | 0.0471 | 6.2472 | 1.6678 | 0.0441 | 1.7119 | 0.0000 | 6,302.6799 | 6,302.6799 | 0.1412 | 0.0000 | 6,306.2108 |
| Unmitigated | 0.7410 | 5.3814 | 13.4785 | 0.0685 | 6.2001 | 0.0471 | 6.2472 | 1.6678 | 0.0441 | 1.7119 | 0.0000 | 6,302.6799 | 6,302.6799 | 0.1412 | 0.0000 | 6,306.2108 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| City Park | 0.00 | 0.00 | 0.00 | | |
| Parking Lot | 944.06 | 2,036.06 | 2036.06 | 16,678,526 | 16,678,526 |
| Total | 944.06 | 2,036.06 | 2,036.06 | 16,678,526 | 16,678,526 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| City Park | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Parking Lot | 15.00 | 44.00 | 15.00 | 5.00 | 90.00 | 5.00 | 86 | 11 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| City Park | 0.512206 | 0.037649 | 0.220902 | 0.116610 | 0.017603 | 0.005350 | 0.033125 | 0.046863 | 0.001372 | 0.001143 | 0.005515 | 0.000740 | 0.000922 |
| Parking Lot | 0.512206 | 0.037649 | 0.220902 | 0.116610 | 0.017603 | 0.005350 | 0.033125 | 0.046863 | 0.001372 | 0.001143 | 0.005515 | 0.000740 | 0.000922 |

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 66.4549 | 66.4549 | 6.5600e-003 | 1.3600e-003 | 67.0229 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 66.4549 | 66.4549 | 6.5600e-003 | 1.3600e-003 | 67.0229 |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 498326 | 66.4549 | 6.5600e-003 | 1.3600e-003 | 67.0229 |
| **Total** | | **66.4549** | **6.5600e-003** | **1.3600e-003** | **67.0229** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 498326 | 66.4549 | 6.5600e-003 | 1.3600e-003 | 67.0229 |
| **Total** | | **66.4549** | **6.5600e-003** | **1.3600e-003** | **67.0229** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0778 | 1.0000e-005 | 6.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.3000e-003 | 1.3000e-003 | 0.0000 | 0.0000 | 1.3900e-003 |
| Unmitigated | 0.0778 | 1.0000e-005 | 6.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.3000e-003 | 1.3000e-003 | 0.0000 | 0.0000 | 1.3900e-003 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 8.8000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0690 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 6.0000e-005 | 1.0000e-005 | 6.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.3000e-003 | 1.3000e-003 | 0.0000 | 0.0000 | 1.3900e-003 |
| **Total** | **0.0778** | **1.0000e-005** | **6.7000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **1.3000e-003** | **1.3000e-003** | **0.0000** | **0.0000** | **1.3900e-003** |

## 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 8.8000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0690 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 6.0000e-005 | 1.0000e-005 | 6.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 1.3000e-003 | 1.3000e-003 | 0.0000 | 0.0000 | 1.3900e-003 |
| **Total** | **0.0778** | **1.0000e-005** | **6.7000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **1.3000e-003** | **1.3000e-003** | **0.0000** | **0.0000** | **1.3900e-003** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 33.3672 | 3.2900e-003 | 6.8000e-004 | 33.6524 |
| Unmitigated | 33.3672 | 3.2900e-003 | 6.8000e-004 | 33.6524 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| City Park | 0 / 71.4889 | 33.3672 | 3.2900e-003 | 6.8000e-004 | 33.6524 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **33.3672** | **3.2900e-003** | **6.8000e-004** | **33.6524** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| City Park | 0 / 71.4889 | 33.3672 | 3.2900e-003 | 6.8000e-004 | 33.6524 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **33.3672** | **3.2900e-003** | **6.8000e-004** | **33.6524** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 1.0474 | 0.0619 | 0.0000 | 2.5950 |
| Unmitigated | 1.0474 | 0.0619 | 0.0000 | 2.5950 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| City Park | 5.16 | 1.0474 | 0.0619 | 0.0000 | 2.5950 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.0474** | **0.0619** | **0.0000** | **2.5950** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| City Park | 5.16 | 1.0474 | 0.0619 | 0.0000 | 2.5950 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **1.0474** | **0.0619** | **0.0000** | **2.5950** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 2 | 50 | 470 | 0.73 | CNG |

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

### User Defined Equipment

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

### Unmitigated/Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Emergency Generator - CNG (0 - 500 HP) | 0.1034 | 9.9500e-003 | 0.2692 | 4.0000e-005 | | 5.7000e-004 | 5.7000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 5.9918 | 5.9918 | 0.0125 | 0.0000 | 6.3050 |
| **Total** | **0.1034** | **9.9500e-003** | **0.2692** | **4.0000e-005** | | **5.7000e-004** | **5.7000e-004** | | **5.7000e-004** | **5.7000e-004** | **0.0000** | **5.9918** | **5.9918** | **0.0125** | **0.0000** | **6.3050** |

## 11.0 Vegetation

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT | | | |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 11.1 Vegetation Land Change

**Vegetation Type**

| | Initial/Final | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| | Acres | MT | | | |
| Grassland | 500 / 500 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

CalEEMod Air Quality Emissions Modeling–Summer

# Hidden Falls Regional Park SEIR

**Placer-Mountain Counties County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 13.00 | Acre | 13.00 | 566,280.00 | 0 |
| City Park | 60.00 | Acre | 60.00 | 2,613,600.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 74 |
| **Climate Zone** | 2 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 294 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Corporate Responsibility and Sustainability Report Together, Building a Better California
2018
http://www.pgecorp.com/corp_responsibility/reports/2018/assets/PGE_CRSR_2018.pdf

Land Use - Project Description.

Construction Phase - Project Description.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Project Description.

Grading - Project Description.

Vehicle Trips - From Comment on Annual CalEEMod Report (Page 20). Assumed Sunday trips same as Saturday trips.

Energy Use -

Water And Wastewater - Project Description.

Solid Waste -

Land Use Change - Project Description.

Stationary Sources - Emergency Generators and Fire Pumps - 50 hours for testing and maintenance. Source to be confirmed??

Operational Off-Road Equipment -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblGrading | AcresOfGrading | 275.00 | 41.00 |
| tblGrading | AcresOfGrading | 0.00 | 60.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 294 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 470.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerDay | 0.00 | 2.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerYear | 0.00 | 50.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |
| tblVehicleTrips | CC_TL | 6.60 | 0.00 |
| tblVehicleTrips | CC_TL | 6.60 | 44.00 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | CC_TTP | 48.00 | 0.00 |
| tblVehicleTrips | CC_TTP | 0.00 | 90.00 |
| tblVehicleTrips | CNW_TL | 6.60 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.60 | 15.00 |
| tblVehicleTrips | CNW_TTP | 19.00 | 0.00 |
| tblVehicleTrips | CNW_TTP | 0.00 | 5.00 |
| tblVehicleTrips | CW_TL | 14.70 | 0.00 |
| tblVehicleTrips | CW_TL | 14.70 | 15.00 |
| tblVehicleTrips | CW_TTP | 33.00 | 0.00 |
| tblVehicleTrips | CW_TTP | 0.00 | 5.00 |
| tblVehicleTrips | DV_TP | 28.00 | 0.00 |
| tblVehicleTrips | DV_TP | 0.00 | 11.00 |
| tblVehicleTrips | PB_TP | 6.00 | 0.00 |
| tblVehicleTrips | PB_TP | 0.00 | 3.00 |
| tblVehicleTrips | PR_TP | 66.00 | 0.00 |
| tblVehicleTrips | PR_TP | 0.00 | 86.00 |
| tblVehicleTrips | ST_TR | 22.75 | 0.00 |
| tblVehicleTrips | ST_TR | 0.00 | 157.00 |
| tblVehicleTrips | SU_TR | 16.74 | 0.00 |
| tblVehicleTrips | SU_TR | 0.00 | 157.00 |
| tblVehicleTrips | WD_TR | 1.89 | 0.00 |
| tblVehicleTrips | WD_TR | 0.00 | 73.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2020 | 10.9099 | 82.2020 | 85.3210 | 0.3388 | 20.2566 | 2.1988 | 22.0857 | 10.1634 | 2.0229 | 12.1863 | 0.0000 | 34,345.9943 | 34,345.9943 | 1.9484 | 0.0000 | 34,389.7813 |
| 2021 | 9.9262 | 75.4988 | 79.1507 | 0.3317 | 20.2565 | 1.1767 | 21.4332 | 5.4444 | 1.1063 | 6.5508 | 0.0000 | 33,636.6972 | 33,636.6972 | 1.6629 | 0.0000 | 33,678.2694 |
| 2022 | 9.2189 | 70.6804 | 74.3046 | 0.3246 | 20.2564 | 1.0078 | 21.2641 | 5.4444 | 0.9478 | 6.3922 | 0.0000 | 32,922.4025 | 32,922.4025 | 1.5851 | 0.0000 | 32,962.0303 |
| 2023 | 8.3842 | 60.5212 | 69.4170 | 0.3160 | 20.2563 | 0.8403 | 21.0966 | 5.4444 | 0.7895 | 6.2338 | 0.0000 | 32,061.2120 | 32,061.2120 | 1.3750 | 0.0000 | 32,095.5867 |
| 2024 | 7.9154 | 58.7449 | 65.8157 | 0.3091 | 20.2562 | 0.7502 | 21.0063 | 5.4443 | 0.7044 | 6.1487 | 0.0000 | 31,370.8083 | 31,370.8083 | 1.3294 | 0.0000 | 31,404.0425 |
| 2025 | 1.4270 | 8.6101 | 15.0208 | 0.0244 | 0.1916 | 0.4196 | 0.6112 | 0.0508 | 0.3860 | 0.4368 | 0.0000 | 2,362.5765 | 2,362.5765 | 0.7164 | 0.0000 | 2,380.4861 |
| **Maximum** | **10.9099** | **82.2020** | **85.3210** | **0.3388** | **20.2566** | **2.1988** | **22.0857** | **10.1634** | **2.0229** | **12.1863** | **0.0000** | **34,345.9943** | **34,345.9943** | **1.9484** | **0.0000** | **34,389.7813** |

## 2.1 Overall Construction (Maximum Daily Emission)

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2020 | 10.9099 | 82.2020 | 85.3210 | 0.3388 | 20.2566 | 2.1988 | 22.0857 | 10.1634 | 2.0229 | 12.1863 | 0.0000 | 34,345.9943 | 34,345.9943 | 1.9484 | 0.0000 | 34,389.7813 |
| 2021 | 9.9262 | 75.4988 | 79.1507 | 0.3317 | 20.2565 | 1.1767 | 21.4332 | 5.4444 | 1.1063 | 6.5508 | 0.0000 | 33,636.6972 | 33,636.6972 | 1.6629 | 0.0000 | 33,678.2694 |
| 2022 | 9.2189 | 70.6804 | 74.3046 | 0.3246 | 20.2564 | 1.0078 | 21.2641 | 5.4444 | 0.9478 | 6.3922 | 0.0000 | 32,922.4025 | 32,922.4025 | 1.5851 | 0.0000 | 32,962.0303 |
| 2023 | 8.3842 | 60.5212 | 69.4170 | 0.3160 | 20.2563 | 0.8403 | 21.0966 | 5.4444 | 0.7895 | 6.2338 | 0.0000 | 32,061.2120 | 32,061.2120 | 1.3750 | 0.0000 | 32,095.5867 |
| 2024 | 7.9154 | 58.7449 | 65.8157 | 0.3091 | 20.2562 | 0.7502 | 21.0063 | 5.4443 | 0.7044 | 6.1487 | 0.0000 | 31,370.8083 | 31,370.8083 | 1.3294 | 0.0000 | 31,404.0425 |
| 2025 | 1.4270 | 8.6101 | 15.0208 | 0.0244 | 0.1916 | 0.4196 | 0.6112 | 0.0508 | 0.3860 | 0.4368 | 0.0000 | 2,362.5765 | 2,362.5765 | 0.7164 | 0.0000 | 2,380.4861 |
| **Maximum** | **10.9099** | **82.2020** | **85.3210** | **0.3388** | **20.2566** | **2.1988** | **22.0857** | **10.1634** | **2.0229** | **12.1863** | **0.0000** | **34,345.9943** | **34,345.9943** | **1.9484** | **0.0000** | **34,389.7813** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 7.2926 | 45.4759 | 138.2273 | 0.6507 | 57.8500 | 0.4211 | 58.2711 | 15.5025 | 0.3937 | 15.8963 | | 65,955.5306 | 65,955.5306 | 1.4472 | | 65,991.7102 |
| Stationary | 8.2702 | 0.7962 | 21.5394 | 2.8800e-003 | | 0.0456 | 0.0456 | | 0.0456 | 0.0456 | | 528.3829 | 528.3829 | 1.1048 | | 556.0029 |
| **Total** | **15.9896** | **46.2722** | **159.7741** | **0.6536** | **57.8500** | **0.4668** | **58.3168** | **15.5025** | **0.4394** | **15.9419** | | **66,483.9294** | **66,483.9294** | **2.5520** | **0.0000** | **66,547.7301** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 7.2926 | 45.4759 | 138.2273 | 0.6507 | 57.8500 | 0.4211 | 58.2711 | 15.5025 | 0.3937 | 15.8963 | | 65,955.5306 | 65,955.5306 | 1.4472 | | 65,991.7102 |
| Stationary | 8.2702 | 0.7962 | 21.5394 | 2.8800e-003 | | 0.0456 | 0.0456 | | 0.0456 | 0.0456 | | 528.3829 | 528.3829 | 1.1048 | | 556.0029 |
| **Total** | **15.9896** | **46.2722** | **159.7741** | **0.6536** | **57.8500** | **0.4668** | **58.3168** | **15.5025** | **0.4394** | **15.9419** | | **66,483.9294** | **66,483.9294** | **2.5520** | **0.0000** | **66,547.7301** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Site Preparation | 1/1/2020 | 2/25/2020 | 5 | 40 | |
| 2 | Grading | Grading | 2/26/2020 | 7/28/2020 | 5 | 110 | |
| 3 | Construction | Building Construction | 7/29/2020 | 10/29/2024 | 5 | 1110 | |
| 4 | Paving | Paving | 10/30/2024 | 2/11/2025 | 5 | 75 | |

**Acres of Grading (Site Preparation Phase): 60**

**Acres of Grading (Grading Phase): 41**

**Acres of Paving: 13**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Construction | 9 | 1,336.00 | 521.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Site Preparation - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 19.6570 | 0.0000 | 19.6570 | 10.1025 | 0.0000 | 10.1025 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| **Total** | **4.0765** | **42.4173** | **21.5136** | **0.0380** | **19.6570** | **2.1974** | **21.8544** | **10.1025** | **2.0216** | **12.1241** | | **3,685.1016** | **3,685.1016** | **1.1918** | | **3,714.8975** |

## 3.2 Site Preparation - 2020

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0946 | 0.0567 | 0.7795 | 2.2800e-003 | 0.2299 | 1.4000e-003 | 0.2313 | 0.0610 | 1.2900e-003 | 0.0623 | | 226.9340 | 226.9340 | 5.4100e-003 | | 227.0693 |
| **Total** | **0.0946** | **0.0567** | **0.7795** | **2.2800e-003** | **0.2299** | **1.4000e-003** | **0.2313** | **0.0610** | **1.2900e-003** | **0.0623** | | **226.9340** | **226.9340** | **5.4100e-003** | | **227.0693** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 19.6570 | 0.0000 | 19.6570 | 10.1025 | 0.0000 | 10.1025 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | 0.0000 | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| **Total** | **4.0765** | **42.4173** | **21.5136** | **0.0380** | **19.6570** | **2.1974** | **21.8544** | **10.1025** | **2.0216** | **12.1241** | **0.0000** | **3,685.1016** | **3,685.1016** | **1.1918** | | **3,714.8975** |

## 3.2 Site Preparation - 2020

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0946 | 0.0567 | 0.7795 | 2.2800e-003 | 0.2299 | 1.4000e-003 | 0.2313 | 0.0610 | 1.2900e-003 | 0.0623 | | 226.9340 | 226.9340 | 5.4100e-003 | | 227.0693 |
| **Total** | **0.0946** | **0.0567** | **0.7795** | **2.2800e-003** | **0.2299** | **1.4000e-003** | **0.2313** | **0.0610** | **1.2900e-003** | **0.0623** | | **226.9340** | **226.9340** | **5.4100e-003** | | **227.0693** |

## 3.3 Grading - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.4174 | 0.0000 | 6.4174 | 3.3529 | 0.0000 | 3.3529 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |
| **Total** | **4.4501** | **50.1975** | **31.9583** | **0.0620** | **6.4174** | **2.1739** | **8.5913** | **3.3529** | **2.0000** | **5.3529** | | **6,005.8653** | **6,005.8653** | **1.9424** | | **6,054.4257** |

## 3.3 Grading - 2020

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1051 | 0.0630 | 0.8661 | 2.5300e-003 | 0.2555 | 1.5500e-003 | 0.2570 | 0.0678 | 1.4300e-003 | 0.0692 | | 252.1489 | 252.1489 | 6.0100e-003 | | 252.2993 |
| **Total** | **0.1051** | **0.0630** | **0.8661** | **2.5300e-003** | **0.2555** | **1.5500e-003** | **0.2570** | **0.0678** | **1.4300e-003** | **0.0692** | | **252.1489** | **252.1489** | **6.0100e-003** | | **252.2993** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.4174 | 0.0000 | 6.4174 | 3.3529 | 0.0000 | 3.3529 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | 0.0000 | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |
| **Total** | **4.4501** | **50.1975** | **31.9583** | **0.0620** | **6.4174** | **2.1739** | **8.5913** | **3.3529** | **2.0000** | **5.3529** | **0.0000** | **6,005.8653** | **6,005.8653** | **1.9424** | | **6,054.4257** |

## 3.3 Grading - 2020

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1051 | 0.0630 | 0.8661 | 2.5300e-003 | 0.2555 | 1.5500e-003 | 0.2570 | 0.0678 | 1.4300e-003 | 0.0692 | | 252.1489 | 252.1489 | 6.0100e-003 | | 252.2993 |
| **Total** | **0.1051** | **0.0630** | **0.8661** | **2.5300e-003** | **0.2555** | **1.5500e-003** | **0.2570** | **0.0678** | **1.4300e-003** | **0.0692** | | **252.1489** | **252.1489** | **6.0100e-003** | | **252.2993** |

## 3.4 Construction - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| **Total** | **2.1198** | **19.1860** | **16.8485** | **0.0269** | | **1.1171** | **1.1171** | | **1.0503** | **1.0503** | | **2,553.0631** | **2,553.0631** | **0.6229** | | **2,568.6345** |

## 3.4 Construction - 2020

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.7723 | 58.8052 | 10.6166 | 0.1429 | 3.1918 | 0.2443 | 3.4361 | 0.9191 | 0.2337 | 1.1528 | | 14,949.3858 | 14,949.3858 | 0.7268 | | 14,967.5567 |
| Worker | 7.0178 | 4.2108 | 57.8559 | 0.1691 | 17.0648 | 0.1038 | 17.1686 | 4.5254 | 0.0957 | 4.6211 | | 16,843.5455 | 16,843.5455 | 0.4018 | | 16,853.5901 |
| **Total** | **8.7901** | **63.0159** | **68.4725** | **0.3119** | **20.2566** | **0.3481** | **20.6047** | **5.4445** | **0.3293** | **5.7738** | | **31,792.9313** | **31,792.9313** | **1.1286** | | **31,821.1468** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| **Total** | **2.1198** | **19.1860** | **16.8485** | **0.0269** | | **1.1171** | **1.1171** | | **1.0503** | **1.0503** | **0.0000** | **2,553.0631** | **2,553.0631** | **0.6229** | | **2,568.6345** |

## 3.4 Construction - 2020

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.7723 | 58.8052 | 10.6166 | 0.1429 | 3.1918 | 0.2443 | 3.4361 | 0.9191 | 0.2337 | 1.1528 | | 14,949.3858 | 14,949.3858 | 0.7268 | | 14,967.5567 |
| Worker | 7.0178 | 4.2108 | 57.8559 | 0.1691 | 17.0648 | 0.1038 | 17.1686 | 4.5254 | 0.0957 | 4.6211 | | 16,843.5455 | 16,843.5455 | 0.4018 | | 16,853.5901 |
| **Total** | **8.7901** | **63.0159** | **68.4725** | **0.3119** | **20.2566** | **0.3481** | **20.6047** | **5.4445** | **0.3293** | **5.7738** | | **31,792.9313** | **31,792.9313** | **1.1286** | | **31,821.1468** |

## 3.4 Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| **Total** | **1.9009** | **17.4321** | **16.5752** | **0.0269** | | **0.9586** | **0.9586** | | **0.9013** | **0.9013** | | **2,553.3639** | **2,553.3639** | **0.6160** | | **2,568.7643** |

## 3.4 Construction - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.4875 | 54.2898 | 9.4031 | 0.1417 | 3.1917 | 0.1170 | 3.3088 | 0.9190 | 0.1120 | 1.0310 | | 14,833.4873 | 14,833.4873 | 0.6867 | | 14,850.6550 |
| Worker | 6.5378 | 3.7769 | 53.1724 | 0.1631 | 17.0648 | 0.1010 | 17.1658 | 4.5254 | 0.0931 | 4.6185 | | 16,249.8460 | 16,249.8460 | 0.3602 | | 16,258.8501 |
| **Total** | **8.0253** | **58.0667** | **62.5755** | **0.3048** | **20.2565** | **0.2181** | **20.4746** | **5.4444** | **0.2050** | **5.6495** | | **31,083.3333** | **31,083.3333** | **1.0469** | | **31,109.5051** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| **Total** | **1.9009** | **17.4321** | **16.5752** | **0.0269** | | **0.9586** | **0.9586** | | **0.9013** | **0.9013** | **0.0000** | **2,553.3639** | **2,553.3639** | **0.6160** | | **2,568.7643** |

## 3.4 Construction - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.4875 | 54.2898 | 9.4031 | 0.1417 | 3.1917 | 0.1170 | 3.3088 | 0.9190 | 0.1120 | 1.0310 | | 14,833.4873 | 14,833.4873 | 0.6867 | | 14,850.6550 |
| Worker | 6.5378 | 3.7769 | 53.1724 | 0.1631 | 17.0648 | 0.1010 | 17.1658 | 4.5254 | 0.0931 | 4.6185 | | 16,249.8460 | 16,249.8460 | 0.3602 | | 16,258.8501 |
| **Total** | **8.0253** | **58.0667** | **62.5755** | **0.3048** | **20.2565** | **0.2181** | **20.4746** | **5.4444** | **0.2050** | **5.6495** | | **31,083.3333** | **31,083.3333** | **1.0469** | | **31,109.5051** |

## 3.4 Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

## 3.4 Construction - 2022

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.3834 | 51.6623 | 8.7260 | 0.1406 | 3.1916 | 0.1000 | 3.2916 | 0.9190 | 0.0957 | 1.0147 | | 14,714.7066 | 14,714.7066 | 0.6491 | | 14,730.9330 |
| Worker | 6.1293 | 3.4025 | 49.2152 | 0.1570 | 17.0648 | 0.0987 | 17.1635 | 4.5254 | 0.0909 | 4.6163 | | 15,653.3623 | 15,653.3623 | 0.3241 | | 15,661.4651 |
| **Total** | **7.5127** | **55.0647** | **57.9412** | **0.2976** | **20.2564** | **0.1987** | **20.4551** | **5.4444** | **0.1866** | **5.6310** | | **30,368.0690** | **30,368.0690** | **0.9732** | | **30,392.3981** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | **0.0000** | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

## 3.4 Construction - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.3834 | 51.6623 | 8.7260 | 0.1406 | 3.1916 | 0.1000 | 3.2916 | 0.9190 | 0.0957 | 1.0147 | | 14,714.7066 | 14,714.7066 | 0.6491 | | 14,730.9330 |
| Worker | 6.1293 | 3.4025 | 49.2152 | 0.1570 | 17.0648 | 0.0987 | 17.1635 | 4.5254 | 0.0909 | 4.6163 | | 15,653.3623 | 15,653.3623 | 0.3241 | | 15,661.4651 |
| **Total** | **7.5127** | **55.0647** | **57.9412** | **0.2976** | **20.2564** | **0.1987** | **20.4551** | **5.4444** | **0.1866** | **5.6310** | | **30,368.0690** | **30,368.0690** | **0.9732** | | **30,392.3981** |

## 3.4 Construction - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

## 3.4 Construction - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.0559 | 43.0655 | 7.6304 | 0.1381 | 3.1915 | 0.0440 | 3.2354 | 0.9189 | 0.0420 | 0.9610 | | 14,450.1368 | 14,450.1368 | 0.4759 | | 14,462.0345 |
| Worker | 5.7556 | 3.0708 | 45.5426 | 0.1510 | 17.0648 | 0.0967 | 17.1614 | 4.5254 | 0.0890 | 4.6144 | | 15,055.8653 | 15,055.8653 | 0.2912 | | 15,063.1461 |
| **Total** | **6.8115** | **46.1363** | **53.1730** | **0.2891** | **20.2563** | **0.1406** | **20.3969** | **5.4444** | **0.1310** | **5.5754** | | **29,506.0020** | **29,506.0020** | **0.7671** | | **29,525.1807** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

## 3.4 Construction - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.0559 | 43.0655 | 7.6304 | 0.1381 | 3.1915 | 0.0440 | 3.2354 | 0.9189 | 0.0420 | 0.9610 | | 14,450.1368 | 14,450.1368 | 0.4759 | | 14,462.0345 |
| Worker | 5.7556 | 3.0708 | 45.5426 | 0.1510 | 17.0648 | 0.0967 | 17.1614 | 4.5254 | 0.0890 | 4.6144 | | 15,055.8653 | 15,055.8653 | 0.2912 | | 15,063.1461 |
| **Total** | **6.8115** | **46.1363** | **53.1730** | **0.2891** | **20.2563** | **0.1406** | **20.3969** | **5.4444** | **0.1310** | **5.5754** | | **29,506.0020** | **29,506.0020** | **0.7671** | | **29,525.1807** |

## 3.4 Construction - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.4716 | 13.4438 | 16.1668 | 0.0270 | | 0.6133 | 0.6133 | | 0.5769 | 0.5769 | | 2,555.6989 | 2,555.6989 | 0.6044 | | 2,570.8077 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

## 3.4 Construction - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.0205 | 42.5209 | 7.2698 | 0.1371 | 3.1914 | 0.0423 | 3.2336 | 0.9189 | 0.0404 | 0.9593 | | 14,351.6411 | 14,351.6411 | 0.4625 | | 14,363.2024 |
| Worker | 5.4233 | 2.7802 | 42.3791 | 0.1450 | 17.0648 | 0.0946 | 17.1594 | 4.5254 | 0.0871 | 4.6125 | | 14,463.4683 | 14,463.4683 | 0.2626 | | 14,470.0325 |
| **Total** | **6.4438** | **45.3011** | **49.6489** | **0.2821** | **20.2562** | **0.1369** | **20.3930** | **5.4443** | **0.1275** | **5.5718** | | **28,815.1094** | **28,815.1094** | **0.7250** | | **28,833.2349** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.4716 | 13.4438 | 16.1668 | 0.0270 | | 0.6133 | 0.6133 | | 0.5769 | 0.5769 | 0.0000 | 2,555.6989 | 2,555.6989 | 0.6044 | | 2,570.8077 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | **0.0000** | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

## 3.4 Construction - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.0205 | 42.5209 | 7.2698 | 0.1371 | 3.1914 | 0.0423 | 3.2336 | 0.9189 | 0.0404 | 0.9593 | | 14,351.6411 | 14,351.6411 | 0.4625 | | 14,363.2024 |
| Worker | 5.4233 | 2.7802 | 42.3791 | 0.1450 | 17.0648 | 0.0946 | 17.1594 | 4.5254 | 0.0871 | 4.6125 | | 14,463.4683 | 14,463.4683 | 0.2626 | | 14,470.0325 |
| **Total** | **6.4438** | **45.3011** | **49.6489** | **0.2821** | **20.2562** | **0.1369** | **20.3930** | **5.4443** | **0.1275** | **5.5718** | | **28,815.1094** | **28,815.1094** | **0.7250** | | **28,833.2349** |

## 3.5 Paving - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.4423** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

## 3.5 Paving - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0609 | 0.0312 | 0.4758 | 1.6300e-003 | 0.1916 | 1.0600e-003 | 0.1927 | 0.0508 | 9.8000e-004 | 0.0518 | | 162.3892 | 162.3892 | 2.9500e-003 | | 162.4629 |
| **Total** | **0.0609** | **0.0312** | **0.4758** | **1.6300e-003** | **0.1916** | **1.0600e-003** | **0.1927** | **0.0508** | **9.8000e-004** | **0.0518** | | **162.3892** | **162.3892** | **2.9500e-003** | | **162.4629** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.4423** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | **0.0000** | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

## 3.5 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0609 | 0.0312 | 0.4758 | 1.6300e-003 | 0.1916 | 1.0600e-003 | 0.1927 | 0.0508 | 9.8000e-004 | 0.0518 | | 162.3892 | 162.3892 | 2.9500e-003 | | 162.4629 |
| **Total** | **0.0609** | **0.0312** | **0.4758** | **1.6300e-003** | **0.1916** | **1.0600e-003** | **0.1927** | **0.0508** | **9.8000e-004** | **0.0518** | | **162.3892** | **162.3892** | **2.9500e-003** | | **162.4629** |

## 3.5 Paving - 2025

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9152 | 8.5816 | 14.5780 | 0.0228 | | 0.4185 | 0.4185 | | 0.3850 | 0.3850 | | 2,206.7452 | 2,206.7452 | 0.7137 | | 2,224.5878 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.3693** | **8.5816** | **14.5780** | **0.0228** | | **0.4185** | **0.4185** | | **0.3850** | **0.3850** | | **2,206.7452** | **2,206.7452** | **0.7137** | | **2,224.5878** |

## 3.5 Paving - 2025

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0577 | 0.0284 | 0.4429 | 1.5600e-003 | 0.1916 | 1.0400e-003 | 0.1926 | 0.0508 | 9.6000e-004 | 0.0518 | | 155.8313 | 155.8313 | 2.6800e-003 | | 155.8983 |
| **Total** | **0.0577** | **0.0284** | **0.4429** | **1.5600e-003** | **0.1916** | **1.0400e-003** | **0.1926** | **0.0508** | **9.6000e-004** | **0.0518** | | **155.8313** | **155.8313** | **2.6800e-003** | | **155.8983** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9152 | 8.5816 | 14.5780 | 0.0228 | | 0.4185 | 0.4185 | | 0.3850 | 0.3850 | 0.0000 | 2,206.7452 | 2,206.7452 | 0.7137 | | 2,224.5878 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.3693** | **8.5816** | **14.5780** | **0.0228** | | **0.4185** | **0.4185** | | **0.3850** | **0.3850** | **0.0000** | **2,206.7452** | **2,206.7452** | **0.7137** | | **2,224.5878** |

### 3.5 Paving - 2025

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0577 | 0.0284 | 0.4429 | 1.5600e-003 | 0.1916 | 1.0400e-003 | 0.1926 | 0.0508 | 9.6000e-004 | 0.0518 | | 155.8313 | 155.8313 | 2.6800e-003 | | 155.8983 |
| **Total** | **0.0577** | **0.0284** | **0.4429** | **1.5600e-003** | **0.1916** | **1.0400e-003** | **0.1926** | **0.0508** | **9.6000e-004** | **0.0518** | | **155.8313** | **155.8313** | **2.6800e-003** | | **155.8983** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 7.2926 | 45.4759 | 138.2273 | 0.6507 | 57.8500 | 0.4211 | 58.2711 | 15.5025 | 0.3937 | 15.8963 | | 65,955.5306 | 65,955.5306 | 1.4472 | | 65,991.7102 |
| Unmitigated | 7.2926 | 45.4759 | 138.2273 | 0.6507 | 57.8500 | 0.4211 | 58.2711 | 15.5025 | 0.3937 | 15.8963 | | 65,955.5306 | 65,955.5306 | 1.4472 | | 65,991.7102 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| City Park | 0.00 | 0.00 | 0.00 | | |
| Parking Lot | 949.00 | 2,041.00 | 2041.00 | 16,744,122 | 16,744,122 |
| Total | 949.00 | 2,041.00 | 2,041.00 | 16,744,122 | 16,744,122 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| City Park | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Parking Lot | 15.00 | 44.00 | 15.00 | 5.00 | 90.00 | 5.00 | 86 | 11 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| City Park | 0.512206 | 0.037649 | 0.220902 | 0.116610 | 0.017603 | 0.005350 | 0.033125 | 0.046863 | 0.001372 | 0.001143 | 0.005515 | 0.000740 | 0.000922 |
| Parking Lot | 0.512206 | 0.037649 | 0.220902 | 0.116610 | 0.017603 | 0.005350 | 0.033125 | 0.046863 | 0.001372 | 0.001143 | 0.005515 | 0.000740 | 0.000922 |

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| Unmitigated | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0482 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.3779 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 6.8000e-004 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| **Total** | **0.4268** | **7.0000e-005** | **7.4300e-003** | **0.0000** | | **3.0000e-005** | **3.0000e-005** | | **3.0000e-005** | **3.0000e-005** | | **0.0160** | **0.0160** | **4.0000e-005** | | **0.0170** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0482 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.3779 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 6.8000e-004 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| **Total** | **0.4268** | **7.0000e-005** | **7.4300e-003** | **0.0000** | | **3.0000e-005** | **3.0000e-005** | | **3.0000e-005** | **3.0000e-005** | | **0.0160** | **0.0160** | **4.0000e-005** | | **0.0170** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 2 | 50 | 470 | 0.73 | CNG |

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | lb/day | | | | | | | | | | lb/day | | | | | |
| Emergency Generator - CNG (0 - 500 HP) | 8.2702 | 0.7962 | 21.5394 | 2.8800e-003 | | 0.0456 | 0.0456 | | 0.0456 | 0.0456 | | 528.3829 | 528.3829 | 1.1048 | | 556.0029 |
| **Total** | **8.2702** | **0.7962** | **21.5394** | **2.8800e-003** | | **0.0456** | **0.0456** | | **0.0456** | **0.0456** | | **528.3829** | **528.3829** | **1.1048** | | **556.0029** |

## 11.0 Vegetation

CalEEMod Air Quality Emissions Modeling–Winter

# Hidden Falls Regional Park SEIR

**Placer-Mountain Counties County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 13.00 | Acre | 13.00 | 566,280.00 | 0 |
| City Park | 60.00 | Acre | 60.00 | 2,613,600.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 74 |
| **Climate Zone** | 2 | | | **Operational Year** | 2025 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 294 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - Corporate Responsibility and Sustainability Report Together, Building a Better California
2018
http://www.pgecorp.com/corp_responsibility/reports/2018/assets/PGE_CRSR_2018.pdf

Land Use - Project Description.

Construction Phase - Project Description.

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Project Description.

Grading - Project Description.

Vehicle Trips - From Comment on Annual CalEEMod Report (Page 20). Assumed Sunday trips same as Saturday trips.

Energy Use -

Water And Wastewater - Project Description.

Solid Waste -

Land Use Change - Project Description.

Stationary Sources - Emergency Generators and Fire Pumps - 50 hours for testing and maintenance. Source to be confirmed??

Operational Off-Road Equipment -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblGrading | AcresOfGrading | 275.00 | 41.00 |
| tblGrading | AcresOfGrading | 0.00 | 60.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 294 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblStationaryGeneratorsPumpsUse | HorsePowerValue | 0.00 | 470.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerDay | 0.00 | 2.00 |
| tblStationaryGeneratorsPumpsUse | HoursPerYear | 0.00 | 50.00 |
| tblStationaryGeneratorsPumpsUse | NumberOfEquipment | 0.00 | 1.00 |
| tblVehicleTrips | CC_TL | 6.60 | 0.00 |
| tblVehicleTrips | CC_TL | 6.60 | 44.00 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | CC_TTP | 48.00 | 0.00 |
| tblVehicleTrips | CC_TTP | 0.00 | 90.00 |
| tblVehicleTrips | CNW_TL | 6.60 | 0.00 |
| tblVehicleTrips | CNW_TL | 6.60 | 15.00 |
| tblVehicleTrips | CNW_TTP | 19.00 | 0.00 |
| tblVehicleTrips | CNW_TTP | 0.00 | 5.00 |
| tblVehicleTrips | CW_TL | 14.70 | 0.00 |
| tblVehicleTrips | CW_TL | 14.70 | 15.00 |
| tblVehicleTrips | CW_TTP | 33.00 | 0.00 |
| tblVehicleTrips | CW_TTP | 0.00 | 5.00 |
| tblVehicleTrips | DV_TP | 28.00 | 0.00 |
| tblVehicleTrips | DV_TP | 0.00 | 11.00 |
| tblVehicleTrips | PB_TP | 6.00 | 0.00 |
| tblVehicleTrips | PB_TP | 0.00 | 3.00 |
| tblVehicleTrips | PR_TP | 66.00 | 0.00 |
| tblVehicleTrips | PR_TP | 0.00 | 86.00 |
| tblVehicleTrips | ST_TR | 22.75 | 0.00 |
| tblVehicleTrips | ST_TR | 0.00 | 156.62 |
| tblVehicleTrips | SU_TR | 16.74 | 0.00 |
| tblVehicleTrips | SU_TR | 0.00 | 156.62 |
| tblVehicleTrips | WD_TR | 1.89 | 0.00 |
| tblVehicleTrips | WD_TR | 0.00 | 72.62 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2020 | 11.1696 | 83.7322 | 79.7146 | 0.3150 | 20.2566 | 2.1988 | 22.0857 | 10.1634 | 2.0229 | 12.1863 | 0.0000 | 31,945.7984 | 31,945.7984 | 1.9478 | 0.0000 | 31,990.8544 |
| 2021 | 10.1794 | 76.7000 | 73.7788 | 0.3085 | 20.2565 | 1.1831 | 21.4396 | 5.4444 | 1.1125 | 6.5569 | 0.0000 | 31,302.6330 | 31,302.6330 | 1.7138 | 0.0000 | 31,345.4781 |
| 2022 | 9.4718 | 71.6957 | 69.1097 | 0.3021 | 20.2564 | 1.0137 | 21.2701 | 5.4444 | 0.9535 | 6.3979 | 0.0000 | 30,654.3315 | 30,654.3315 | 1.6352 | 0.0000 | 30,695.2103 |
| 2023 | 8.6218 | 61.3477 | 64.0879 | 0.2943 | 20.2563 | 0.8422 | 21.0985 | 5.4444 | 0.7913 | 6.2356 | 0.0000 | 29,869.4265 | 29,869.4265 | 1.4046 | 0.0000 | 29,904.5405 |
| 2024 | 8.1586 | 59.4813 | 60.7164 | 0.2881 | 20.2562 | 0.7519 | 21.0080 | 5.4443 | 0.7060 | 6.1503 | 0.0000 | 29,251.4572 | 29,251.4572 | 1.3597 | 0.0000 | 29,285.4483 |
| 2025 | 1.4290 | 8.6172 | 14.9504 | 0.0242 | 0.1916 | 0.4196 | 0.6112 | 0.0508 | 0.3860 | 0.4368 | 0.0000 | 2,345.4041 | 2,345.4041 | 0.7160 | 0.0000 | 2,363.3051 |
| **Maximum** | **11.1696** | **83.7322** | **79.7146** | **0.3150** | **20.2566** | **2.1988** | **22.0857** | **10.1634** | **2.0229** | **12.1863** | **0.0000** | **31,945.7984** | **31,945.7984** | **1.9478** | **0.0000** | **31,990.8544** |

## 2.1 Overall Construction (Maximum Daily Emission)

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2020 | 11.1696 | 83.7322 | 79.7146 | 0.3150 | 20.2566 | 2.1988 | 22.0857 | 10.1634 | 2.0229 | 12.1863 | 0.0000 | 31,945.7984 | 31,945.7984 | 1.9478 | 0.0000 | 31,990.8544 |
| 2021 | 10.1794 | 76.7000 | 73.7788 | 0.3085 | 20.2565 | 1.1831 | 21.4396 | 5.4444 | 1.1125 | 6.5569 | 0.0000 | 31,302.6330 | 31,302.6330 | 1.7138 | 0.0000 | 31,345.4781 |
| 2022 | 9.4718 | 71.6957 | 69.1097 | 0.3021 | 20.2564 | 1.0137 | 21.2701 | 5.4444 | 0.9535 | 6.3979 | 0.0000 | 30,654.3315 | 30,654.3315 | 1.6352 | 0.0000 | 30,695.2103 |
| 2023 | 8.6218 | 61.3477 | 64.0879 | 0.2943 | 20.2563 | 0.8422 | 21.0985 | 5.4444 | 0.7913 | 6.2356 | 0.0000 | 29,869.4265 | 29,869.4265 | 1.4046 | 0.0000 | 29,904.5405 |
| 2024 | 8.1586 | 59.4813 | 60.7164 | 0.2881 | 20.2562 | 0.7519 | 21.0080 | 5.4443 | 0.7060 | 6.1503 | 0.0000 | 29,251.4572 | 29,251.4572 | 1.3597 | 0.0000 | 29,285.4483 |
| 2025 | 1.4290 | 8.6172 | 14.9504 | 0.0242 | 0.1916 | 0.4196 | 0.6112 | 0.0508 | 0.3860 | 0.4368 | 0.0000 | 2,345.4041 | 2,345.4041 | 0.7160 | 0.0000 | 2,363.3051 |
| **Maximum** | **11.1696** | **83.7322** | **79.7146** | **0.3150** | **20.2566** | **2.1988** | **22.0857** | **10.1634** | **2.0229** | **12.1863** | **0.0000** | **31,945.7984** | **31,945.7984** | **1.9478** | **0.0000** | **31,990.8544** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 6.5254 | 49.2298 | 119.5255 | 0.5999 | 57.7099 | 0.4207 | 58.1306 | 15.4650 | 0.3933 | 15.8583 | | 60,878.0475 | 60,878.0475 | 1.3958 | | 60,912.9421 |
| Stationary | 8.2702 | 0.7962 | 21.5394 | 2.8800e-003 | | 0.0456 | 0.0456 | | 0.0456 | 0.0456 | | 528.3829 | 528.3829 | 1.1048 | | 556.0029 |
| **Total** | **15.2224** | **50.0261** | **141.0723** | **0.6028** | **57.7099** | **0.4664** | **58.1763** | **15.4650** | **0.4390** | **15.9040** | | **61,406.4464** | **61,406.4464** | **2.5006** | **0.0000** | **61,468.9621** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 6.5254 | 49.2298 | 119.5255 | 0.5999 | 57.7099 | 0.4207 | 58.1306 | 15.4650 | 0.3933 | 15.8583 | | 60,878.0475 | 60,878.0475 | 1.3958 | | 60,912.9421 |
| Stationary | 8.2702 | 0.7962 | 21.5394 | 2.8800e-003 | | 0.0456 | 0.0456 | | 0.0456 | 0.0456 | | 528.3829 | 528.3829 | 1.1048 | | 556.0029 |
| **Total** | **15.2224** | **50.0261** | **141.0723** | **0.6028** | **57.7099** | **0.4664** | **58.1763** | **15.4650** | **0.4390** | **15.9040** | | **61,406.4464** | **61,406.4464** | **2.5006** | **0.0000** | **61,468.9621** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Site Preparation | 1/1/2020 | 2/25/2020 | 5 | 40 | |
| 2 | Grading | Grading | 2/26/2020 | 7/28/2020 | 5 | 110 | |
| 3 | Construction | Building Construction | 7/29/2020 | 10/29/2024 | 5 | 1110 | |
| 4 | Paving | Paving | 10/30/2024 | 2/11/2025 | 5 | 75 | |

**Acres of Grading (Site Preparation Phase): 60**

**Acres of Grading (Grading Phase): 41**

**Acres of Paving: 13**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Construction | 9 | 1,336.00 | 521.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 16.80 | 6.60 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Site Preparation - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 19.6570 | 0.0000 | 19.6570 | 10.1025 | 0.0000 | 10.1025 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| **Total** | **4.0765** | **42.4173** | **21.5136** | **0.0380** | **19.6570** | **2.1974** | **21.8544** | **10.1025** | **2.0216** | **12.1241** | | **3,685.1016** | **3,685.1016** | **1.1918** | | **3,714.8975** |

## 3.2 Site Preparation - 2020

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0965 | 0.0712 | 0.6720 | 2.0300e-003 | 0.2299 | 1.4000e-003 | 0.2313 | 0.0610 | 1.2900e-003 | 0.0623 | | 201.8619 | 201.8619 | 4.8000e-003 | | 201.9820 |
| **Total** | **0.0965** | **0.0712** | **0.6720** | **2.0300e-003** | **0.2299** | **1.4000e-003** | **0.2313** | **0.0610** | **1.2900e-003** | **0.0623** | | **201.8619** | **201.8619** | **4.8000e-003** | | **201.9820** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 19.6570 | 0.0000 | 19.6570 | 10.1025 | 0.0000 | 10.1025 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | 0.0000 | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| **Total** | **4.0765** | **42.4173** | **21.5136** | **0.0380** | **19.6570** | **2.1974** | **21.8544** | **10.1025** | **2.0216** | **12.1241** | **0.0000** | **3,685.1016** | **3,685.1016** | **1.1918** | | **3,714.8975** |

## 3.2 Site Preparation - 2020

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0965 | 0.0712 | 0.6720 | 2.0300e-003 | 0.2299 | 1.4000e-003 | 0.2313 | 0.0610 | 1.2900e-003 | 0.0623 | | 201.8619 | 201.8619 | 4.8000e-003 | | 201.9820 |
| **Total** | **0.0965** | **0.0712** | **0.6720** | **2.0300e-003** | **0.2299** | **1.4000e-003** | **0.2313** | **0.0610** | **1.2900e-003** | **0.0623** | | **201.8619** | **201.8619** | **4.8000e-003** | | **201.9820** |

## 3.3 Grading - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.4174 | 0.0000 | 6.4174 | 3.3529 | 0.0000 | 3.3529 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |
| **Total** | **4.4501** | **50.1975** | **31.9583** | **0.0620** | **6.4174** | **2.1739** | **8.5913** | **3.3529** | **2.0000** | **5.3529** | | **6,005.8653** | **6,005.8653** | **1.9424** | | **6,054.4257** |

## 3.3 Grading - 2020

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1073 | 0.0791 | 0.7467 | 2.2500e-003 | 0.2555 | 1.5500e-003 | 0.2570 | 0.0678 | 1.4300e-003 | 0.0692 | | 224.2910 | 224.2910 | 5.3400e-003 | | 224.4244 |
| **Total** | **0.1073** | **0.0791** | **0.7467** | **2.2500e-003** | **0.2555** | **1.5500e-003** | **0.2570** | **0.0678** | **1.4300e-003** | **0.0692** | | **224.2910** | **224.2910** | **5.3400e-003** | | **224.4244** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.4174 | 0.0000 | 6.4174 | 3.3529 | 0.0000 | 3.3529 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | 0.0000 | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |
| **Total** | **4.4501** | **50.1975** | **31.9583** | **0.0620** | **6.4174** | **2.1739** | **8.5913** | **3.3529** | **2.0000** | **5.3529** | **0.0000** | **6,005.8653** | **6,005.8653** | **1.9424** | | **6,054.4257** |

## 3.3 Grading - 2020

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1073 | 0.0791 | 0.7467 | 2.2500e-003 | 0.2555 | 1.5500e-003 | 0.2570 | 0.0678 | 1.4300e-003 | 0.0692 | | 224.2910 | 224.2910 | 5.3400e-003 | | 224.4244 |
| **Total** | **0.1073** | **0.0791** | **0.7467** | **2.2500e-003** | **0.2555** | **1.5500e-003** | **0.2570** | **0.0678** | **1.4300e-003** | **0.0692** | | **224.2910** | **224.2910** | **5.3400e-003** | | **224.4244** |

## 3.4 Construction - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| **Total** | **2.1198** | **19.1860** | **16.8485** | **0.0269** | | **1.1171** | **1.1171** | | **1.0503** | **1.0503** | | **2,553.0631** | **2,553.0631** | **0.6229** | | **2,568.6345** |

## 3.4 Construction - 2020

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.8840 | 59.2646 | 12.9874 | 0.1377 | 3.1918 | 0.2516 | 3.4435 | 0.9191 | 0.2407 | 1.1598 | | 14,410.0990 | 14,410.0990 | 0.8229 | | 14,430.6707 |
| Worker | 7.1658 | 5.2816 | 49.8788 | 0.1504 | 17.0648 | 0.1038 | 17.1686 | 4.5254 | 0.0957 | 4.6211 | | 14,982.6364 | 14,982.6364 | 0.3565 | | 14,991.5493 |
| **Total** | **9.0498** | **64.5461** | **62.8661** | **0.2881** | **20.2566** | **0.3554** | **20.6120** | **5.4445** | **0.3364** | **5.7808** | | **29,392.7354** | **29,392.7354** | **1.1794** | | **29,422.2200** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| **Total** | **2.1198** | **19.1860** | **16.8485** | **0.0269** | | **1.1171** | **1.1171** | | **1.0503** | **1.0503** | **0.0000** | **2,553.0631** | **2,553.0631** | **0.6229** | | **2,568.6345** |

## 3.4 Construction - 2020

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.8840 | 59.2646 | 12.9874 | 0.1377 | 3.1918 | 0.2516 | 3.4435 | 0.9191 | 0.2407 | 1.1598 | | 14,410.0990 | 14,410.0990 | 0.8229 | | 14,430.6707 |
| Worker | 7.1658 | 5.2816 | 49.8788 | 0.1504 | 17.0648 | 0.1038 | 17.1686 | 4.5254 | 0.0957 | 4.6211 | | 14,982.6364 | 14,982.6364 | 0.3565 | | 14,991.5493 |
| **Total** | **9.0498** | **64.5461** | **62.8661** | **0.2881** | **20.2566** | **0.3554** | **20.6120** | **5.4445** | **0.3364** | **5.7808** | | **29,392.7354** | **29,392.7354** | **1.1794** | | **29,422.2200** |

## 3.4 Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| **Total** | **1.9009** | **17.4321** | **16.5752** | **0.0269** | | **0.9586** | **0.9586** | | **0.9013** | **0.9013** | | **2,553.3639** | **2,553.3639** | **0.6160** | | **2,568.7643** |

## 3.4 Construction - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.5914 | 54.5332 | 11.6016 | 0.1366 | 3.1917 | 0.1235 | 3.3152 | 0.9190 | 0.1181 | 1.0371 | | 14,294.2473 | 14,294.2473 | 0.7793 | | 14,313.7285 |
| Worker | 6.6871 | 4.7347 | 45.6021 | 0.1450 | 17.0648 | 0.1010 | 17.1658 | 4.5254 | 0.0931 | 4.6185 | | 14,455.0218 | 14,455.0218 | 0.3185 | | 14,462.9853 |
| **Total** | **8.2785** | **59.2679** | **57.2036** | **0.2816** | **20.2565** | **0.2245** | **20.4810** | **5.4444** | **0.2112** | **5.6556** | | **28,749.2691** | **28,749.2691** | **1.0978** | | **28,776.7139** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| **Total** | **1.9009** | **17.4321** | **16.5752** | **0.0269** | | **0.9586** | **0.9586** | | **0.9013** | **0.9013** | **0.0000** | **2,553.3639** | **2,553.3639** | **0.6160** | | **2,568.7643** |

## 3.4 Construction - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.5914 | 54.5332 | 11.6016 | 0.1366 | 3.1917 | 0.1235 | 3.3152 | 0.9190 | 0.1181 | 1.0371 | | 14,294.2473 | 14,294.2473 | 0.7793 | | 14,313.7285 |
| Worker | 6.6871 | 4.7347 | 45.6021 | 0.1450 | 17.0648 | 0.1010 | 17.1658 | 4.5254 | 0.0931 | 4.6185 | | 14,455.0218 | 14,455.0218 | 0.3185 | | 14,462.9853 |
| **Total** | **8.2785** | **59.2679** | **57.2036** | **0.2816** | **20.2565** | **0.2245** | **20.4810** | **5.4444** | **0.2112** | **5.6556** | | **28,749.2691** | **28,749.2691** | **1.0978** | | **28,776.7139** |

## 3.4 Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

## 3.4 Construction - 2022

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.4804 | 51.8172 | 10.7739 | 0.1355 | 3.1916 | 0.1060 | 3.2976 | 0.9190 | 0.1014 | 1.0204 | | 14,174.6157 | 14,174.6157 | 0.7376 | | 14,193.0544 |
| Worker | 6.2852 | 4.2630 | 41.9723 | 0.1397 | 17.0648 | 0.0987 | 17.1635 | 4.5254 | 0.0909 | 4.6163 | | 13,925.3822 | 13,925.3822 | 0.2857 | | 13,932.5238 |
| **Total** | **7.7656** | **56.0801** | **52.7463** | **0.2751** | **20.2564** | **0.2047** | **20.4611** | **5.4444** | **0.1923** | **5.6367** | | **28,099.9979** | **28,099.9979** | **1.0232** | | **28,125.5781** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | **0.0000** | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

## 3.4 Construction - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.4804 | 51.8172 | 10.7739 | 0.1355 | 3.1916 | 0.1060 | 3.2976 | 0.9190 | 0.1014 | 1.0204 | | 14,174.6157 | 14,174.6157 | 0.7376 | | 14,193.0544 |
| Worker | 6.2852 | 4.2630 | 41.9723 | 0.1397 | 17.0648 | 0.0987 | 17.1635 | 4.5254 | 0.0909 | 4.6163 | | 13,925.3822 | 13,925.3822 | 0.2857 | | 13,932.5238 |
| **Total** | **7.7656** | **56.0801** | **52.7463** | **0.2751** | **20.2564** | **0.2047** | **20.4611** | **5.4444** | **0.1923** | **5.6367** | | **28,099.9979** | **28,099.9979** | **1.0232** | | **28,125.5781** |

## 3.4 Construction - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

## 3.4 Construction - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.1301 | 43.1182 | 9.2475 | 0.1330 | 3.1915 | 0.0458 | 3.2373 | 0.9189 | 0.0438 | 0.9628 | | 13,919.4406 | 13,919.4406 | 0.5412 | | 13,932.9696 |
| Worker | 5.9190 | 3.8446 | 38.5965 | 0.1343 | 17.0648 | 0.0967 | 17.1614 | 4.5254 | 0.0890 | 4.6144 | | 13,394.7760 | 13,394.7760 | 0.2556 | | 13,401.1649 |
| **Total** | **7.0491** | **46.9628** | **47.8439** | **0.2673** | **20.2563** | **0.1425** | **20.3987** | **5.4444** | **0.1328** | **5.5772** | | **27,314.2166** | **27,314.2166** | **0.7967** | | **27,334.1344** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

## 3.4 Construction - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.1301 | 43.1182 | 9.2475 | 0.1330 | 3.1915 | 0.0458 | 3.2373 | 0.9189 | 0.0438 | 0.9628 | | 13,919.4406 | 13,919.4406 | 0.5412 | | 13,932.9696 |
| Worker | 5.9190 | 3.8446 | 38.5965 | 0.1343 | 17.0648 | 0.0967 | 17.1614 | 4.5254 | 0.0890 | 4.6144 | | 13,394.7760 | 13,394.7760 | 0.2556 | | 13,401.1649 |
| **Total** | **7.0491** | **46.9628** | **47.8439** | **0.2673** | **20.2563** | **0.1425** | **20.3987** | **5.4444** | **0.1328** | **5.5772** | | **27,314.2166** | **27,314.2166** | **0.7967** | | **27,334.1344** |

## 3.4 Construction - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.4716 | 13.4438 | 16.1668 | 0.0270 | | 0.6133 | 0.6133 | | 0.5769 | 0.5769 | | 2,555.6989 | 2,555.6989 | 0.6044 | | 2,570.8077 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

## 3.4 Construction - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.0912 | 42.5589 | 8.8066 | 0.1321 | 3.1914 | 0.0440 | 3.2353 | 0.9189 | 0.0420 | 0.9609 | | 13,827.1140 | 13,827.1140 | 0.5258 | | 13,840.2597 |
| Worker | 5.5958 | 3.4786 | 35.7429 | 0.1290 | 17.0648 | 0.0946 | 17.1594 | 4.5254 | 0.0871 | 4.6125 | | 12,868.6443 | 12,868.6443 | 0.2295 | | 12,874.3810 |
| **Total** | **6.6870** | **46.0375** | **44.5496** | **0.2611** | **20.2562** | **0.1386** | **20.3947** | **5.4443** | **0.1291** | **5.5734** | | **26,695.7583** | **26,695.7583** | **0.7553** | | **26,714.6407** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.4716 | 13.4438 | 16.1668 | 0.0270 | | 0.6133 | 0.6133 | | 0.5769 | 0.5769 | 0.0000 | 2,555.6989 | 2,555.6989 | 0.6044 | | 2,570.8077 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | **0.0000** | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

## 3.4 Construction - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 1.0912 | 42.5589 | 8.8066 | 0.1321 | 3.1914 | 0.0440 | 3.2353 | 0.9189 | 0.0420 | 0.9609 | | 13,827.1140 | 13,827.1140 | 0.5258 | | 13,840.2597 |
| Worker | 5.5958 | 3.4786 | 35.7429 | 0.1290 | 17.0648 | 0.0946 | 17.1594 | 4.5254 | 0.0871 | 4.6125 | | 12,868.6443 | 12,868.6443 | 0.2295 | | 12,874.3810 |
| **Total** | **6.6870** | **46.0375** | **44.5496** | **0.2611** | **20.2562** | **0.1386** | **20.3947** | **5.4443** | **0.1291** | **5.5734** | | **26,695.7583** | **26,695.7583** | **0.7553** | | **26,714.6407** |

## 3.5 Paving - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.4423** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

## 3.5 Paving - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0628 | 0.0391 | 0.4013 | 1.4500e-003 | 0.1916 | 1.0600e-003 | 0.1927 | 0.0508 | 9.8000e-004 | 0.0518 | | 144.4833 | 144.4833 | 2.5800e-003 | | 144.5477 |
| **Total** | **0.0628** | **0.0391** | **0.4013** | **1.4500e-003** | **0.1916** | **1.0600e-003** | **0.1927** | **0.0508** | **9.8000e-004** | **0.0518** | | **144.4833** | **144.4833** | **2.5800e-003** | | **144.5477** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.4423** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | **0.0000** | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

## 3.5 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0628 | 0.0391 | 0.4013 | 1.4500e-003 | 0.1916 | 1.0600e-003 | 0.1927 | 0.0508 | 9.8000e-004 | 0.0518 | | 144.4833 | 144.4833 | 2.5800e-003 | | 144.5477 |
| **Total** | **0.0628** | **0.0391** | **0.4013** | **1.4500e-003** | **0.1916** | **1.0600e-003** | **0.1927** | **0.0508** | **9.8000e-004** | **0.0518** | | **144.4833** | **144.4833** | **2.5800e-003** | | **144.5477** |

## 3.5 Paving - 2025

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9152 | 8.5816 | 14.5780 | 0.0228 | | 0.4185 | 0.4185 | | 0.3850 | 0.3850 | | 2,206.7452 | 2,206.7452 | 0.7137 | | 2,224.5878 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.3693** | **8.5816** | **14.5780** | **0.0228** | | **0.4185** | **0.4185** | | **0.3850** | **0.3850** | | **2,206.7452** | **2,206.7452** | **0.7137** | | **2,224.5878** |

## 3.5 Paving - 2025

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0597 | 0.0356 | 0.3724 | 1.3900e-003 | 0.1916 | 1.0400e-003 | 0.1926 | 0.0508 | 9.6000e-004 | 0.0518 | | 138.6590 | 138.6590 | 2.3300e-003 | | 138.7173 |
| **Total** | **0.0597** | **0.0356** | **0.3724** | **1.3900e-003** | **0.1916** | **1.0400e-003** | **0.1926** | **0.0508** | **9.6000e-004** | **0.0518** | | **138.6590** | **138.6590** | **2.3300e-003** | | **138.7173** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9152 | 8.5816 | 14.5780 | 0.0228 | | 0.4185 | 0.4185 | | 0.3850 | 0.3850 | 0.0000 | 2,206.7452 | 2,206.7452 | 0.7137 | | 2,224.5878 |
| Paving | 0.4541 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.3693** | **8.5816** | **14.5780** | **0.0228** | | **0.4185** | **0.4185** | | **0.3850** | **0.3850** | **0.0000** | **2,206.7452** | **2,206.7452** | **0.7137** | | **2,224.5878** |

### 3.5 Paving - 2025

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0597 | 0.0356 | 0.3724 | 1.3900e-003 | 0.1916 | 1.0400e-003 | 0.1926 | 0.0508 | 9.6000e-004 | 0.0518 | | 138.6590 | 138.6590 | 2.3300e-003 | | 138.7173 |
| **Total** | **0.0597** | **0.0356** | **0.3724** | **1.3900e-003** | **0.1916** | **1.0400e-003** | **0.1926** | **0.0508** | **9.6000e-004** | **0.0518** | | **138.6590** | **138.6590** | **2.3300e-003** | | **138.7173** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 6.5254 | 49.2298 | 119.5255 | 0.5999 | 57.7099 | 0.4207 | 58.1306 | 15.4650 | 0.3933 | 15.8583 | | 60,878.0475 | 60,878.0475 | 1.3958 | | 60,912.9421 |
| Unmitigated | 6.5254 | 49.2298 | 119.5255 | 0.5999 | 57.7099 | 0.4207 | 58.1306 | 15.4650 | 0.3933 | 15.8583 | | 60,878.0475 | 60,878.0475 | 1.3958 | | 60,912.9421 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| City Park | 0.00 | 0.00 | 0.00 | | |
| Parking Lot | 944.06 | 2,036.06 | 2036.06 | 16,678,526 | 16,678,526 |
| Total | 944.06 | 2,036.06 | 2,036.06 | 16,678,526 | 16,678,526 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| City Park | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Parking Lot | 15.00 | 44.00 | 15.00 | 5.00 | 90.00 | 5.00 | 86 | 11 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| City Park | 0.512206 | 0.037649 | 0.220902 | 0.116610 | 0.017603 | 0.005350 | 0.033125 | 0.046863 | 0.001372 | 0.001143 | 0.005515 | 0.000740 | 0.000922 |
| Parking Lot | 0.512206 | 0.037649 | 0.220902 | 0.116610 | 0.017603 | 0.005350 | 0.033125 | 0.046863 | 0.001372 | 0.001143 | 0.005515 | 0.000740 | 0.000922 |

## 5.0 Energy Detail

Historical Energy Use: Y

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| City Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| Unmitigated | 0.4268 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0482 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.3779 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 6.8000e-004 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| **Total** | **0.4268** | **7.0000e-005** | **7.4300e-003** | **0.0000** | | **3.0000e-005** | **3.0000e-005** | | **3.0000e-005** | **3.0000e-005** | | **0.0160** | **0.0160** | **4.0000e-005** | | **0.0170** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0482 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.3779 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 6.8000e-004 | 7.0000e-005 | 7.4300e-003 | 0.0000 | | 3.0000e-005 | 3.0000e-005 | | 3.0000e-005 | 3.0000e-005 | | 0.0160 | 0.0160 | 4.0000e-005 | | 0.0170 |
| **Total** | **0.4268** | **7.0000e-005** | **7.4300e-003** | **0.0000** | | **3.0000e-005** | **3.0000e-005** | | **3.0000e-005** | **3.0000e-005** | | **0.0160** | **0.0160** | **4.0000e-005** | | **0.0170** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|
| Emergency Generator | 1 | 2 | 50 | 470 | 0.73 | CNG |

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 10.1 Stationary Sources

**Unmitigated/Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Type | lb/day | | | | | | | | | | lb/day | | | | | |
| Emergency Generator - CNG (0 - 500 HP) | 8.2702 | 0.7962 | 21.5394 | 2.8800e-003 | | 0.0456 | 0.0456 | | 0.0456 | 0.0456 | | 528.3829 | 528.3829 | 1.1048 | | 556.0029 |
| **Total** | **8.2702** | **0.7962** | **21.5394** | **2.8800e-003** | | **0.0456** | **0.0456** | | **0.0456** | **0.0456** | | **528.3829** | **528.3829** | **1.1048** | | **556.0029** |

## 11.0 Vegetation

# APPENDIX F

Noise Data

# Existing Traffic Noise Prediction

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Model Input Sheet**

**Project Name :** 60517490 - Hidden Falls Regional Park
**Project Number :** 60517490
**Modeling Condition :** Existing (Weekday)
**Ground Type :** Hard
**K Factor :** NA
**Metric ($L_{eq}$, $L_{dn}$, CNEL) :** CNEL
**Traffic Desc. (Peak or ADT) :** ADT

| Segment | Roadway | Segment From | Segment To | Traffic Vol. | Speed (Mph) | Distance to CL | % Autos | %MT | % HT | Day % | Eve % | Night % | Offset (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Bell Rd | Lone Star Rd | Cramer Rd | 789 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 2 | Bell Rd | Joeger Rd | Cramer Rd | 1800 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 3 | Cramer Rd | Bell Rd | SR 49 | 603 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 4 | Lone Star Rd | Bell Rd | SR 49 | 1435 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 5 | Auburn Valley Road | Fairway Court | Curtola Ranch Road | 319 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Predicted Noise Levels**

**Project Name :** 60517490 - Hidden Falls Regional Park
**Project Number :** 60517490
**Modeling Condition :** Existing (Weekday)
**Metric (Leq, Ldn, CNEL) :** CNEL

| | | Segment | | Noise Levels, dB CNEL | | | | Distance to Traffic Noise Contours, Feet | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Segment | Roadway | From | To | Auto | MT | HT | Total | 70 dB | 65 dB | 60 dB | 55 dB | 50 dB |
| 1 | Bell Rd | Lone Star Rd | Cramer Rd | 48.5 | 40.2 | 47.9 | 51.6 | 1 | 2 | 7 | 23 | 72 |
| 2 | Bell Rd | Joeger Rd | Cramer Rd | 52.1 | 43.8 | 51.4 | 55.1 | 2 | 5 | 16 | 52 | 163 |
| 3 | Cramer Rd | Bell Rd | SR 49 | 47.4 | 39.1 | 46.7 | 50.4 | 1 | 2 | 5 | 17 | 55 |
| 4 | Lone Star Rd | Bell Rd | SR 49 | 51.1 | 42.8 | 50.5 | 54.2 | 1 | 4 | 13 | 41 | 130 |
| 5 | Auburn Valley Road | Fairway Court | Curtola Ranch Roa | 44.6 | 36.3 | 43.9 | 47.6 | 0 | 1 | 3 | 9 | 29 |

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Model Input Sheet**

**Project Name :** 60517490 - Hidden Falls Regional Park
**Project Number :** 60517490
**Modeling Condition :** Existing (Weekend)
**Ground Type :** Hard
**K Factor :** NA
**Metric ($L_{eq}$, $L_{dn}$, CNEL) :** CNEL
**Traffic Desc. (Peak or ADT) :** ADT

| Segment | Roadway | Segment From | Segment To | Traffic Vol. | Speed (Mph) | Distance to CL | % Autos | %MT | % HT | Day % | Eve % | Night % | Offset (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Bell Rd | Lone Star Rd | Cramer Rd | 698 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 2 | Bell Rd | Joeger Rd | Cramer Rd | 1709 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 3 | Cramer Rd | Bell Rd | SR 49 | 592 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 4 | Lone Star Rd | Bell Rd | SR 49 | 1322 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |
| 5 | Auburn Valley Road | Fairway Court | Curtola Ranch Road | 431 | 25 | 50 | 98 | 1 | 1 | 87 | 0 | 13 | |

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Predicted Noise Levels**

**Project Name :** 60517490 - Hidden Falls Regional Park
**Project Number :** 60517490
**Modeling Condition :** Existing (Weekend)
**Metric (Leq, Ldn, CNEL) :** CNEL

| | | Segment | | Noise Levels, dB CNEL | | | | Distance to Traffic Noise Contours, Feet | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Segment | Roadway | From | To | Auto | MT | HT | Total | 70 dB | 65 dB | 60 dB | 55 dB | 50 dB |
| 1 | Bell Rd | Lone Star Rd | Cramer Rd | 48.0 | 39.7 | 47.3 | 51.0 | 1 | 2 | 6 | 20 | 63 |
| 2 | Bell Rd | Joeger Rd | Cramer Rd | 51.9 | 43.6 | 51.2 | 54.9 | 2 | 5 | 15 | 49 | 155 |
| 3 | Cramer Rd | Bell Rd | SR 49 | 47.3 | 39.0 | 46.6 | 50.3 | 1 | 2 | 5 | 17 | 54 |
| 4 | Lone Star Rd | Bell Rd | SR 49 | 50.8 | 42.5 | 50.1 | 53.8 | 1 | 4 | 12 | 38 | 120 |
| 5 | Auburn Valley Road | Fairway Court | Curtola Ranch Roa | 45.9 | 37.6 | 45.2 | 48.9 | 0 | 1 | 4 | 12 | 39 |

# Long-Term 24 Hour Continuous Noise Monitoring

# Long-Term 24 Hour Continuous Noise Monitoring

**LT-01-Ldn**

AECOM

**Project:** Hidden Falls Regional Park

**Date:** **Wednesday, May 22, 2019** **to** **Thursday, May 23, 2019**

**Site:** By Residence at 6525 Curtola Ranch Rd

| Hour | Leq | Lmax | L50 | L90 |
|---|---|---|---|---|
| 18:00 | 44.4 | 73.2 | 39.4 | 35.6 |
| 19:00 | 41.8 | 69.1 | 36.2 | 33.4 |
| 20:00 | 40.9 | 66.9 | 36.1 | 33.1 |
| 21:00 | 35.2 | 68.8 | 35.0 | 32.5 |
| 22:00 | 34.5 | 49.9 | 32.8 | 31.7 |
| 23:00 | 34.1 | 48.9 | 33.2 | 32.1 |
| 0:00 | 32.6 | 53.4 | 32.4 | 31.3 |
| 1:00 | 33.3 | 55.0 | 31.6 | 30.6 |
| 2:00 | 31.7 | 48.2 | 32.4 | 31.3 |
| 3:00 | 31.6 | 35.6 | 31.6 | 31.1 |
| 4:00 | 37.5 | 43.6 | 31.3 | 30.3 |
| 5:00 | 43.3 | 63.8 | 31.6 | 30.5 |
| 6:00 | 50.2 | 57.8 | 41.9 | 36.7 |
| 7:00 | 47.5 | 76.7 | 43.4 | 39.1 |
| 8:00 | 52.9 | 73.5 | 40.7 | 36.3 |
| 9:00 | 49.8 | 79.8 | 42.9 | 37.5 |
| 10:00 | 48.8 | 77.2 | 40.2 | 36.3 |
| 11:00 | 46.9 | 75.4 | 42.3 | 36.8 |
| 12:00 | 49.1 | 63.5 | 43.3 | 37.3 |
| 13:00 | 44.9 | 78.3 | 42.0 | 37.2 |
| 14:00 | 43.9 | 66.2 | 40.0 | 36.0 |
| 15:00 | 48.6 | 69.2 | 38.4 | 34.4 |
| 16:00 | 53.3 | 73.9 | 38.0 | 33.6 |
| 17:00 | 50.7 | 84.3 | 42.2 | 33.7 |

**Averages**

| | Leq | Lmax | L50 | L90 |
|---|---|---|---|---|
| Daytime (7 a.m. - 10 p.m.) | 48.5 | 73.1 | 40.0 | 35.5 |
| Nighttime (10 p.m. - 7 a.m.) | 42.0 | 50.7 | 33.2 | 31.7 |

**Uppermost-Level**

| | Leq | Lmax | L50 | L90 |
|---|---|---|---|---|
| Daytime (7 a.m. - 10 p.m.) | 53.3 | 84.3 | 43.4 | 39.1 |
| Nighttime (10 p.m. - 7 a.m.) | 50.2 | 63.8 | 41.9 | 36.7 |

**Percentage of Energy**

| | |
|---|---|
| Daytime | 88% |
| Nighttime | 12% |

**Calculated $L_{dn}$, dBA**

50.2

Noise Prediction Parking Lot Noise Prediction

# Project-Generated Parking Lot Noise Prediction Model

**Hidden Falls Regional Park**

AECOM

**Ref SEL: 71** **Metric: Leq**

| Description | # of Stalls | Trip Multiplier | Trips /Period | Lp @ 50' | Distance to Rec. | Shielding Offset | Lp at Rec. |
|---|---|---|---|---|---|---|---|
| Mears Place | 26 | 4 | 104 | 55.6 | 315 | | 39.6 |
| Curtola Phase 1/2 | 18 | 4 | 72 | 54.0 | 450 | | 34.9 |
| Curtola Phase 4 | 115 | 4 | 460 | 62.0 | 350 | | 45.1 |
| Twilight | 42 | 4 | 168 | 57.7 | 1300 | | 29.4 |

**Combined Noise Level: 46.6 dBA Leq**

# Project-Generated Construction Source Noise Prediction

**Appendix X2**

# Project-Generated Construction Source Noise Prediction Model

**Hidden Falls Regional Park**

| Location | Distance to Nearest Receiver in feet | Combined Predicted Noise Level ($L_{eq}$ dBA) |
|---|---|---|
| Threshold* | 741 | 55.0 |
| | 50 | 84.3 |
| | 60 | 82.3 |
| | 150 | 72.3 |
| | 200 | 69.2 |
| | 250 | 66.8 |
| | 300 | 64.8 |
| | 350 | 63.1 |
| | 400 | 61.7 |
| | 450 | 60.4 |
| | 500 | 59.3 |
| | 550 | 58.2 |
| | 600 | 57.3 |

| Assumptions: | Reference Emission Noise Levels ($L_{max}$) at 50 feet[1] | Usage Factor[1] |
|---|---|---|
| **Dump Truck** | 84 | 0.4 |
| **Front End Loader** | 80 | 0.4 |
| **Grader** | 85 | 0.4 |

| | |
|---|---|
| **Ground Type** | Soft |
| **Ground Factor** | 0.50 |

| Predicted Noise Level [2] | $L_{eq}$ dBA at 50 feet[2] |
|---|---|
| **Dump Truck** | 80.0 |
| **Front End Loader** | 76.0 |
| **Grader** | 81.0 |

| Combined Predicted Noise Level ($L_{eq}$ dBA at 50 feet) |
|---|
| 84.3 |

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006.

[2] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

$L_{eq}$(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Day/Night Energy

| Site(s) | Roadway(s) | Date | | % Day/Night Split | | Day/Night Split | |
|---|---|---|---|---|---|---|---|
| | | From | To | Day | Night | Day | Night |
| LT-01 | By Residence at 6525 Curtola Ranch Rd | Wednesday, May 22, 2019 | Thursday, May 23, 2019 | 88% | 12% | 88 | 12 |

Measurement Summary

| Measurement Site | Address | Date | | Start Time | Duration | Ldn | Daytime | | | | | Nighttime | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | From | To | | | | Leq | Lmax | L10 | L50 | L90 | Leq | Lmax | L50 | L90 |
| LT-01 | By Residence at 6525 Curtola Ranch Rd | Wednesday, May 22, 2019 | Thursday, May 23, 2019 | 18:00 | 24 Hour | 50.2 | 48.5 | 73.1 | 73.1 | 40.0 | 35.5 | 42.0 | 50.7 | 33.2 | 31.7 |
| ST-01 | Front Yard, 5345 Bell Road, just south of 5355 Bell Road | Wednesday, May 22, 2019 | | 16:50 | 0:15 | NA | 40.0 | 53.5 | 46.7 | 38.3 | 36.5 | NA | NA | NA | NA |
| ST-02 | Garden Bar Road, West of Coon Creek | Thursday, May 23, 2019 | | 11:48 | 0:10 | NA | 51.5 | 74.3 | 63.5 | 36.6 | 33.6 | NA | NA | NA | NA |

**Appendix F**

# Project-Generated Parking Lot Noise Prediction Model

**Hidden Falls Regional Park**

AECOM

**Ref SEL: 71** **Metric: Leq**

| Description | # of Stalls | Trip Multiplier | Trips /Period | Lp @ 50' | Distance to Rec. | Shielding Offset | Lp at Rec. |
|---|---|---|---|---|---|---|---|
| Mears Place | 26 | 2 | 52 | 52.6 | 315 | | 36.6 |
| Curtola Phase 1/2 | 18 | 2 | 36 | 51.0 | 450 | | 31.9 |
| Curtola Phase 4 | 115 | 2 | 230 | 59.0 | 350 | | 42.1 |
| Twilight | 42 | 2 | 84 | 54.6 | 1300 | | 26.3 |

**Combined Noise Level: 43.6 dBA Leq**

**Appendix B**

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Model Input Sheet**

AECOM

**Project Name :** Hidden Falls Regional Park
**Project Number :**
**Modeling Condition :** Project Traffic
**Ground Type :** Soft
**K Factor :**
**Metric ($L_{eq}$, $L_{dn}$, CNEL) :** Leq
**Traffic Desc. (Peak or ADT) :** Peak

| Segment | Roadway | Segment From | Segment To | Traffic Vol. | Speed (Mph) | Distance to CL | % Autos | %MT | % HT | Day % | Eve % | Night % | Offset (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Twilight Access Road | Bell Road | Parking Lot | 63 | 25 | 40 | 100 | | | 100 | | 0 | |

**Appendix B**

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Predicted Noise Levels**

**Project Name :** Hidden Falls Regional Park
**Project Number :**
**Modeling Condition :** Project Traffic
**Metric (Leq, Ldn, CNEL) :** Leq

| | | Segment | | Noise Levels, dB Leq | | | | Distance to Traffic Noise Contours, Fee | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Segment | Roadway | From | To | Auto | MT | HT | Total | 70 dB | 65 dB | 60 dB | 55 dB | 50 dB |
| 1 | Twilight Access Road | Bell Road | Parking Lot | 48.3 | 0.0 | 0.0 | 48.3 | 1 | 3 | 7 | 14 | 31 |

**Appendix X2**

# Project-Generated Construction Source Vibration Prediction Model

**Hidden Falls Regional Park**

AECOM

| Location | Distance to Nearest Receiver in feet | Predicted Vibration Level (PPV) | | Predicted Vibration Level (VdB) | | Equipment | Reference Distance | PPV at 25 feet (in/sec)[1] | Approximate Lv (VdB) at 25 feet[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | Pile Driver | Trucks | Pile Driver | Trucks | | | | |
| **CA Threshold (0.08 PPV)** | **60** | **0.408** | **0.020** | | | Pile Driver | 25 | 1.518 | 112 |
| **CA Threshold (80VdB)** | **60** | | | **100** | **74** | Trucks | 25 | 0.076 | 86 |

Notes:

[1] Where PPV is the peak particle velocity

[2] Where Lv is the RMS velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.

Source: Caltrans 2002, FTA 2006

# Long-Term 24 Hour Continuous Noise Monitoring
**LT-01-Ldn**

AECOM

**Project:** Hidden Falls Regional Park

**Date:** **Wednesday, May 22, 2019** **to** **Thursday, May 23, 2019**

**Site:** By Residence at 6525 Curtola Ranch Rd

| Hour | Leq | Lmax | L50 | L90 |
|---|---|---|---|---|
| 18:00 | 44.4 | 73.2 | 39.4 | 35.6 |
| 19:00 | 41.8 | 69.1 | 36.2 | 33.4 |
| 20:00 | 40.9 | 66.9 | 36.1 | 33.1 |
| 21:00 | 35.2 | 68.8 | 35.0 | 32.5 |
| 22:00 | 34.5 | 49.9 | 32.8 | 31.7 |
| 23:00 | 34.1 | 48.9 | 33.2 | 32.1 |
| 0:00 | 32.6 | 53.4 | 32.4 | 31.3 |
| 1:00 | 33.3 | 55.0 | 31.6 | 30.6 |
| 2:00 | 31.7 | 48.2 | 32.4 | 31.3 |
| 3:00 | 31.6 | 35.6 | 31.6 | 31.1 |
| 4:00 | 37.5 | 43.6 | 31.3 | 30.3 |
| 5:00 | 43.3 | 63.8 | 31.6 | 30.5 |
| 6:00 | 50.2 | 57.8 | 41.9 | 36.7 |
| 7:00 | 47.5 | 76.7 | 43.4 | 39.1 |
| 8:00 | 52.9 | 73.5 | 40.7 | 36.3 |
| 9:00 | 49.8 | 79.8 | 42.9 | 37.5 |
| 10:00 | 48.8 | 77.2 | 40.2 | 36.3 |
| 11:00 | 46.9 | 75.4 | 42.3 | 36.8 |
| 12:00 | 49.1 | 63.5 | 43.3 | 37.3 |
| 13:00 | 44.9 | 78.3 | 42.0 | 37.2 |
| 14:00 | 43.9 | 66.2 | 40.0 | 36.0 |
| 15:00 | 48.6 | 69.2 | 38.4 | 34.4 |
| 16:00 | 53.3 | 73.9 | 38.0 | 33.6 |
| 17:00 | 50.7 | 84.3 | 42.2 | 33.7 |

**Averages**

| | Leq | Lmax | L50 | L90 |
|---|---|---|---|---|
| Daytime (7 a.m. - 10 p.m.) | 48.5 | 73.1 | 40.0 | 35.5 |
| Nighttime (10 p.m. - 7 a.m.) | 42.0 | 50.7 | 33.2 | 31.7 |

**Uppermost-Level**

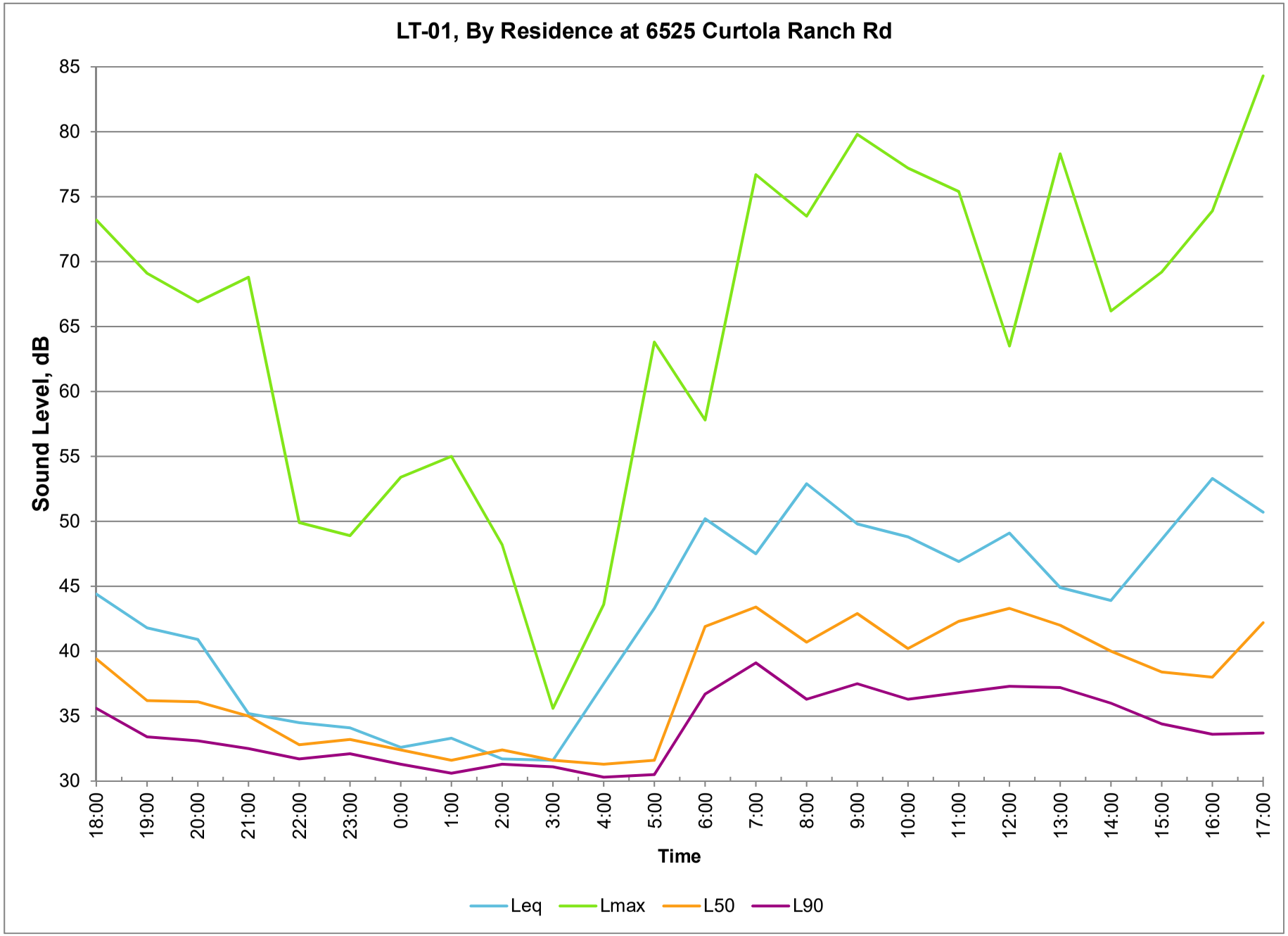
| | Leq | Lmax | L50 | L90 |
|---|---|---|---|---|
| Daytime (7 a.m. - 10 p.m.) | 53.3 | 84.3 | 43.4 | 39.1 |
| Nighttime (10 p.m. - 7 a.m.) | 50.2 | 63.8 | 41.9 | 36.7 |

**Percentage of Energy**

| | |
|---|---|
| Daytime | 88% |
| Nighttime | 12% |

**Calculated $L_{dn}$, dBA**

50.2


LT-01, By Residence at 6525 Curtola Ranch Rd
Sound Level, dB
85
80
75
70
65
60
55
50
45
40
35
30
18:00
19:00
20:00
21:00
22:00
23:00
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
Time
Leq
Lmax
L50
L90

Federal Highway Administration Traffic Noise Prediction

# Project-Generated Parking Lot Noise Prediction Model

**Hidden Falls Regional Park**

AECOM

**Ref SEL: 71** **Metric: Leq**

| Description | # of Stalls | Trip Multiplier | Trips /Period | Lp @ 50' | Distance to Rec. | Shielding Offset | Lp at Rec. |
|---|---|---|---|---|---|---|---|
| Mears Place | 26 | 2 | 52 | 52.6 | 315 | | 36.6 |
| Curtola Phase 1/2 | 18 | 2 | 36 | 51.0 | 450 | | 31.9 |
| Curtola Phase 4 | 115 | 2 | 230 | 59.0 | 350 | | 42.1 |
| Twilight | 42 | 2 | 84 | 54.6 | 1300 | | 26.3 |

**Combined Noise Level: 43.6 dBA Leq**

Appendix X2

# Project-Generated Construction Source Noise Prediction Model

**Hidden Falls Regional Park**

AECOM

| Location | Distance to Nearest Receiver in feet | Combined Predicted Noise Level ($L_{eq}$ dBA) |
|---|---|---|
| Threshold* | 741 | 55.0 |
| | 50 | 84.3 |
| | 60 | 82.3 |
| | 150 | 72.3 |
| | 200 | 69.2 |
| | 250 | 66.8 |
| | 300 | 64.8 |
| | 350 | 63.1 |
| | 400 | 61.7 |
| | 450 | 60.4 |
| | 500 | 59.3 |
| | 550 | 58.2 |
| | 600 | 57.3 |

| Assumptions: | Reference Emission Noise Levels ($L_{max}$) at 50 feet[1] | Usage Factor[1] |
|---|---|---|
| **Dump Truck** | 84 | 0.4 |
| **Front End Loader** | 80 | 0.4 |
| **Grader** | 85 | 0.4 |

| | |
|---|---|
| **Ground Type** | Soft |
| **Ground Factor** | 0.50 |

| Predicted Noise Level [2] | $L_{eq}$ dBA at 50 feet[2] |
|---|---|
| **Dump Truck** | 80.0 |
| **Front End Loader** | 76.0 |
| **Grader** | 81.0 |

| Combined Predicted Noise Level ($L_{eq}$ dBA at 50 feet) |
|---|
| 84.3 |

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006.

[2] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

$L_{eq}$(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

# Project-Generated Construction Source Vibration Prediction Model

**Hidden Falls Regional Park**

AECOM

| Location | Distance to Nearest Receiver in feet | Predicted Vibration Level (PPV) | | Predicted Vibration Level (VdB) | | Equipment | Reference Distance | PPV at 25 feet (in/sec)[1] | Approximate Lv (VdB) at 25 feet[2] |
|---|---|---|---|---|---|---|---|---|---|
| | | Pile Driver | Trucks | Pile Driver | Trucks | | | | |
| **CA Threshold (0.08 PPV)** | **60** | **0.408** | **0.020** | | | Pile Driver | 25 | 1.518 | 112 |
| **CA Threshold (80VdB)** | **60** | | | **100** | **74** | Trucks | 25 | 0.076 | 86 |

Notes:

[1] Where PPV is the peak particle velocity

[2] Where Lv is the RMS velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.

Source: Caltrans 2002, FTA 2006

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Model Input Sheet**

AECOM

**Project Name :** Hidden Falls Regional Park
**Project Number :**
**Modeling Condition :** Project Traffic
**Ground Type :** Soft
**Metric ($L_{eq}$, $L_{dn}$, CNEL) :** Leq

**K Factor :**
**Traffic Desc. (Peak or ADT) :** Peak

| Segment | Roadway | Segment From | Segment To | Traffic Vol. | Speed (Mph) | Distance to CL | % Autos | %MT | % HT | Day % | Eve % | Night % | Offset (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Twilight Access Road | Bell Road | Parking Lot | 63 | 25 | 40 | 100 | | | 100 | | 0 | |

# Traffic Noise Prediction Model, (FHWA RD-77-108)

**Predicted Noise Levels**

**Project Name :** Hidden Falls Regional Park
**Project Number :**
**Modeling Condition :** Project Traffic
**Metric (Leq, Ldn, CNEL) :** Leq

| | | Segment | | Noise Levels, dB Leq | | | | Distance to Traffic Noise Contours, Feet | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Segment | Roadway | From | To | Auto | MT | HT | Total | 70 dB | 65 dB | 60 dB | 55 dB | 50 dB |
| 1 | Twilight Access Road | Bell Road | Parking Lot | 48.3 | 0.0 | 0.0 | 48.3 | 1 | 3 | 7 | 14 | 31 |

# APPENDIX G

Geotechnical Report for Bridge Crossing

# Project Update
January 23, 2012

CARLTON
Engineering Inc.

For: Andy Fisher
Placer County Parks Division
11476 C Avenue
Auburn, CA 95603

Tel (530) 889-6819
Fax (530) 889-6809

From: Dave Jermstad
Subject: Bridge 4 and 5 Geotechnical Engineering Study
Project: 6339-01-08 Hidden Falls Regional Park

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Total pages: 20

Carlton Engineering, Inc. (Carlton) is pleased to present the attached Design Criteria Memorandum containing the results of our update for Bridges 4 and 5 to our geotechnical study for the Placer County Procurement planned bridge construction near the town of Auburn, Placer County, California. The study was conducted in accordance with our proposal to the Placer County Procurement dated September 23, 2008.

The accompanying geotechnical study presents our findings, conclusions, and recommendations developed from our preliminary geotechnical study. Contained in the Design Criteria Memorandum are design criteria and parameters based on design conditions discovered during site investigations and recommendations for the bridge substructures. The results of field mapping, document research, and subsurface exploration and laboratory testing programs, which form the basis of our conclusions and recommendations, are also included in the geotechnical studies. Per discussions between Carlton and the Client, this update is an addendum to Carlton's Bridge 3 Geotechnical Engineering Study and a specific GES for the Bridge 4 and 5 sites will not follow.

If you have any questions regarding the information contained in this geotechnical studies, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
CARLTON ENGINEERING, INC.

PROFESSIONAL GEOLOGIST
DAVID B. JERMSTAD
No. E.G. 1727
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
NATHAN L. BOWERSOX
No. C74023
Exp. 06-30-2013
CIVIL
STATE OF CALIFORNIA

David B. Jermstad, P.G., C.E.G., R.E.A. II
Vice President/Geotechnical Manager

Nathan L. Bowersox, P.E.
Project Engineer

Distribution: Mike Hauge, Carlton Engineering
Amy Suhoza, Carlton Engineering

cc: file

# Project Update
January 23, 2012

## DISCUSSION
This geotechnical study (Design Criteria Memorandum) presents the findings, conclusions, and recommendations developed from our update for Bridges 4 and 5 to our geotechnical study. The study was conducted in accordance with our Professional Service agreement dated February 11, 2008, according to Carlton's Scope of Work from the proposal also dated November 16, 2007.

## FIELD EXPLORATION
On December 22, 2011 and January 8, 2012, Carlton performed detailed site reconnaissances near the two (2) proposed bridge abutments within the site. Geotechnical reconnaissance field work was performed over a period of 2 days and coincided, in part, with our subsurface investigation of the site.

- On December 22, 2011, a field mapping program was conducted by Dave Jermstad of Carlton Engineering. Field testing included Schmidt hammer and Engineer's probe. Rock and soil was visually classified based on Unified Soil Classification System (USCS). The testing locations were estimated based on distances to prominent landmarks.
- On January 8, 2012, a Geophysical Investigation was conducted at the Bridge 5 abutment. The Geophysical program consisted of one (1) Seismic refraction line to present a 2-D representative interpretation of subsurface materials.
- Bulk samples were collected in the vicinity of the project site, and are representative of material encountered at Bridges 4 & 5. The samples were visually classified based on the Unified Soil Classification System (USCS).
- Schmidt Hammer readings were taken on representative rock. The Schmidt Hammer readings were correlated to the loading capacity of rock found within the project area. Vertical readings were taken on representative in-place rock outcrops surrounding the proposed structures. Rock location was also visualized and located, see Figure 1 through Figure 3.

## CONCLUSIONS

The following conclusions and recommendations for site development are provided to assist in the design of the proposed structures. Conclusions are based on field exploration. Conclusions and recommendations contained within Carlton's March 24th, 2011 Geotechnical Engineering Study shall be adhered to as updated herein.

# Project Update
January 23, 2012

## Bridge 4 Location

Based on the performed site reconnaissance's and various testing, Carlton concludes that the Bridge 4 abutments as shown on Figure G2 can be supported on existing rock, provided the recommendations herein are adhered to. During the explorations, Carlton encountered 0.5 to 2 feet of loose silty sand with gravel underlained by competent moderately weathered rock with a minimum compressive strength of 4,400 psi. Based on the high compressive strengths, the proposed concrete abutments can be designed to impose a bearing capacity of 12,000 psf for rock conditions. The allowable bearing pressure can be increased by one-third for wind and seismic loads if allowed by applicable building codes. Depending on bridge loads, either rock anchors or rock dowels shall be used for lateral and uplift support. Rock anchor or dowel capacities shall be confirmed during bridge design, however a minimum of 2,500 psi shall be used for competent rock. Conclusions and recommendations contained within Carlton's March 24th, 2011 Geotechnical Engineering Study shall be adhered to as supplemented herein.

The design criteria attached to this update are based on index testing. Index testing results will be provided in the Geotechnical Engineering Study to follow.

## Bridge 5 Location

Based on the performed site reconnaissance's and various testing, Carlton concludes that the Bridge 5 abutments as shown on Figure G3 can be supported on existing rock, provided the recommendations herein are adhered to. Based on geophysical investigatory results, loose to medium dense soil/weathered rock material is anticipated to depths on the order of 10 feet (See Figure 5 attached). This material should be over-excavated if rock conditions are to be used. Competent moderately weathered rock with a minimum compressive strength of 5,500 psi is anticipated at a depth of 10 feet to be verified during construction. Based on the high compressive strengths, the proposed concrete abutments can be designed to impose a bearing capacity of 12,000 psf for rock conditions. The allowable bearing pressure can be increased by one-third for wind and seismic loads if allowed by applicable building codes. Depending on bridge loads, either rock anchors or rock dowels shall be used for lateral and uplift support. Rock anchor or dowel capacities shall be confirmed during bridge design, however a minimum of 2,500 psi shall be used for competent rock. Conclusions and recommendations contained within Carlton's March 24th, 2011 Geotechnical Engineering Study shall be adhered to as supplemented herein.

Situation of the Bridge 5 southern abutment should take into account the loose zone of material encountered at a surface elevation of approximately 1026 feet msl. Moving this abutment up or down the slope is anticipated to minimize the required overexcavation of material required to reach competent bedrock. A visualization of this is available as the 2D seismic refraction results presented Figure 5 attached to this report.

The design criteria attached to this update are based on index testing. Index testing results will be provided in the Geotechnical Engineering Study to follow.

# Project Update
January 23, 2012

| HFRP Bridge 4 & 5 Improvements | | | | |
|---|---|---|---|---|
| Material: Reddish Brown Silty Sand (SM) on Metavolcanic Bedrock | | | | |
| Selected Project Design Information (Note 1) | | | | |
| **Design Condition** | **Parameter** | **Criteria** | | **Notes** |
| Groundwater Conditions | Anticipated Groundwater Depth (bgs), feet | 5' | | Note 3 |
| Seismic Design (2010 CBC) (Note 2) | Site Class | C | | - |
| | Mapped MCE spectral response at short period (Ss) | 0.414 g | | - |
| | Mapped MCE spectral response at 1 sec period ($S_1$) | 0.193 g | | - |
| | Site Coefficient (Fa) | 1.200 | | - |
| | Site Coefficient (Fv) | 1.607 | | - |
| | MCE spectral response acceleration for short period ($S_{ms}$) | 0.497 g | | - |
| | MCE spectral response acceleration for 1 sec period ($S_{m1}$) | 0.311 g | | - |
| AASHTO Design Parameters (7% PE in 75 year) (Note 6) | Site Class | C | | - |
| | Seismic Zone (Per AASHTO 3.10.6) | 2 | | - |
| | PGA(Rock) | 0.153 g | | - |
| | Mapped Spectral response acceleration at short period (Ss) | 0.297 g | | - |
| | Mapped Spectral response acceleration at one second period ($S_1$) | 0.149 g | | - |
| | MCE Spectral response at short period (SDs) | 0.357 g | | - |
| | MCE Spectral response acceleration at one second period ($SD_1$) | 0.246 g | | - |
| Soil Properties | Property | Native Soil (Note 4) | Rock | Notes |
| | Classification Foundation Layer | SM | - | - |
| | Dry Unit Weight of Soil (pcf), γd | 130 | 135.0 | Note 4 |
| | Total Unit Weight of Soil (pcf), γt @ 90% | 130.0 | 140.0 | Note 4 |
| | Internal Friction Angle, ø | 31.0 | 40.0 | Note 4 |
| | Cohesion (psf), c | 0 | 75 | Note 4 |
| | Percent Passing No. 200 (ASTM C 136 or D 422) | <25% | - | |
| | Moisture Content | 11.0% | - | Note 4 |
| | Allowable Bearing Pressure, psf | 2,100 | 12,000 | Note 4 |
| | Passive Resistance, pcf | 300 | 1200 | Note 4 |
| | Frictional Coefficient | 0.3 | 0.7 | Note 4 |
| | Maximum Cut Slope Geometry, (H:V) | 1.5:1 | 0.5:1 | - |
| | Static "Classic" Settlement (in) | <0.25 | <0.25 | |
| | Corrosion Potential | Low | Low | - |
| Lateral Conditions | Active Earth Pressures, Level (Flat) | 45 | 30 | EFP (Active) |
| | Active Earth Pressures, 3:1 (H:V) | 50 | 35 | |
| | Active Earth Pressures, 2:1 (H:V) | 65 | 40 | |
| | At-Rest pressures, Level Backfill | 65 | 50 | EFP (At Rest) |
| | At-Rest Pressures, 3:1 (H:V) | 75 | 60 | |
| | At-Rest Pressures, 2:1 (H:V) | 85 | 70 | |
| | Pseudostatic Coefficient $k_h$ | | | Note 5 |
| | Active Earth Pressure Coefficient | 0.32 | 0.22 | |
| | Passive Earth Pressure Coefficient | 0.48 | 0.36 | |

Note 1: This table presents a Selection of Project Design Information for the project site based upon investigation and highlights a portion of the results of this specific Geotechnical Study for the proposed site improvements. This table is provided as a reference to the Geotechnical Study and is therefore not intended to be used as a stand-alone document and should not be separated from this report.

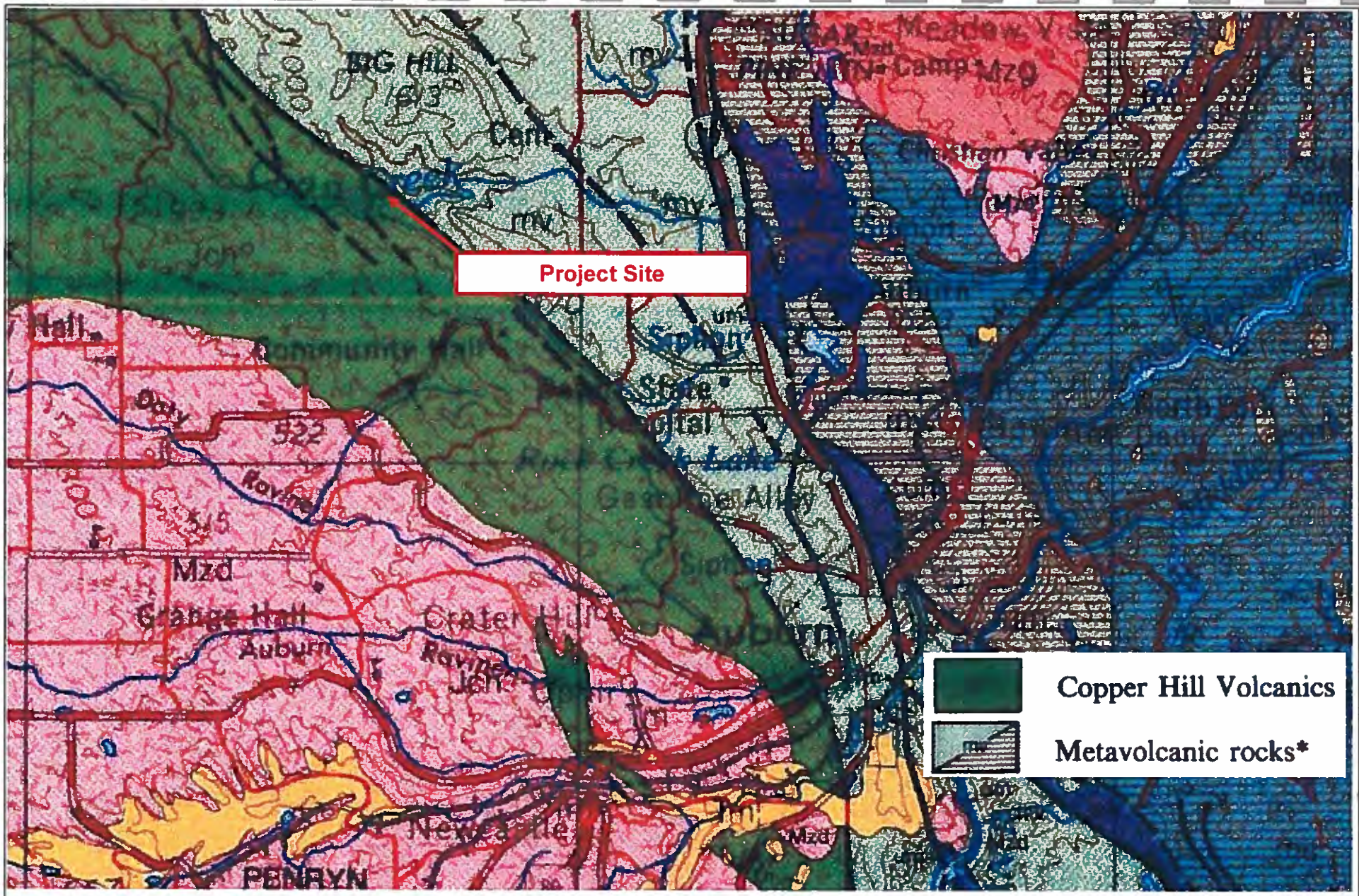
Note 2: Seismic Design is based on the 2010 CBC. Parameters are referenced from the ASCE/SEI 7-05 "Minimum Design Loads for Buildings and Other Structures."

Note 3: Based on site topography, subsurface investigations and familiarity of the project vicinity.

Note 4: Soil Internal Friction Angle based on back calculation of code minimums and engineering judgement.

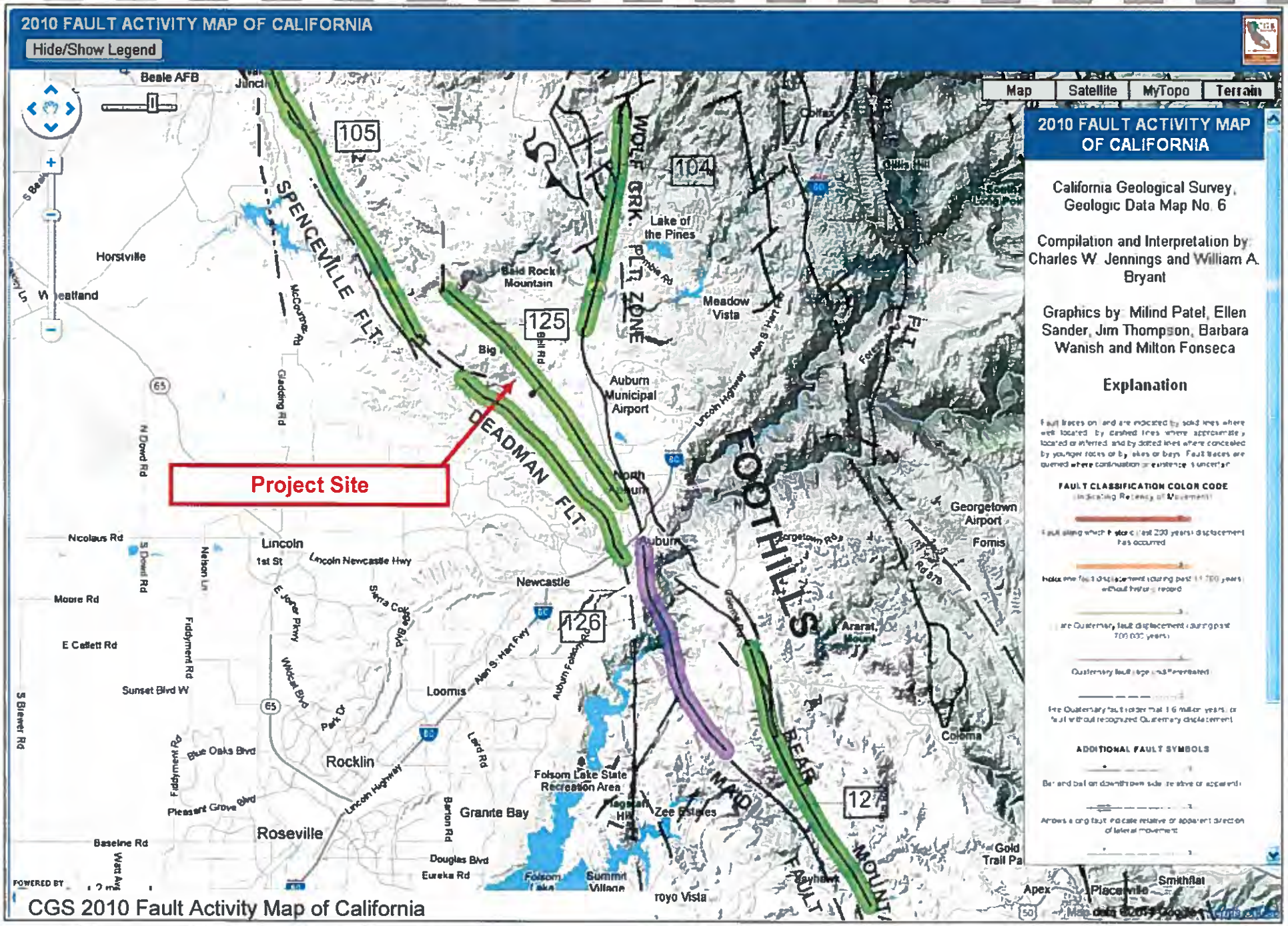
Note 5: Developed as $0.4*S_{DS}$ in accordance with 2010 CBC guidelines.

Note 6: AASHTO LRFD Design Parameters utilize a 7% probability of exceedance (PE) in 75 years. This data was developed using the USGS Computer program "AASHTO Ground Motion Parameters, Version 2.10."



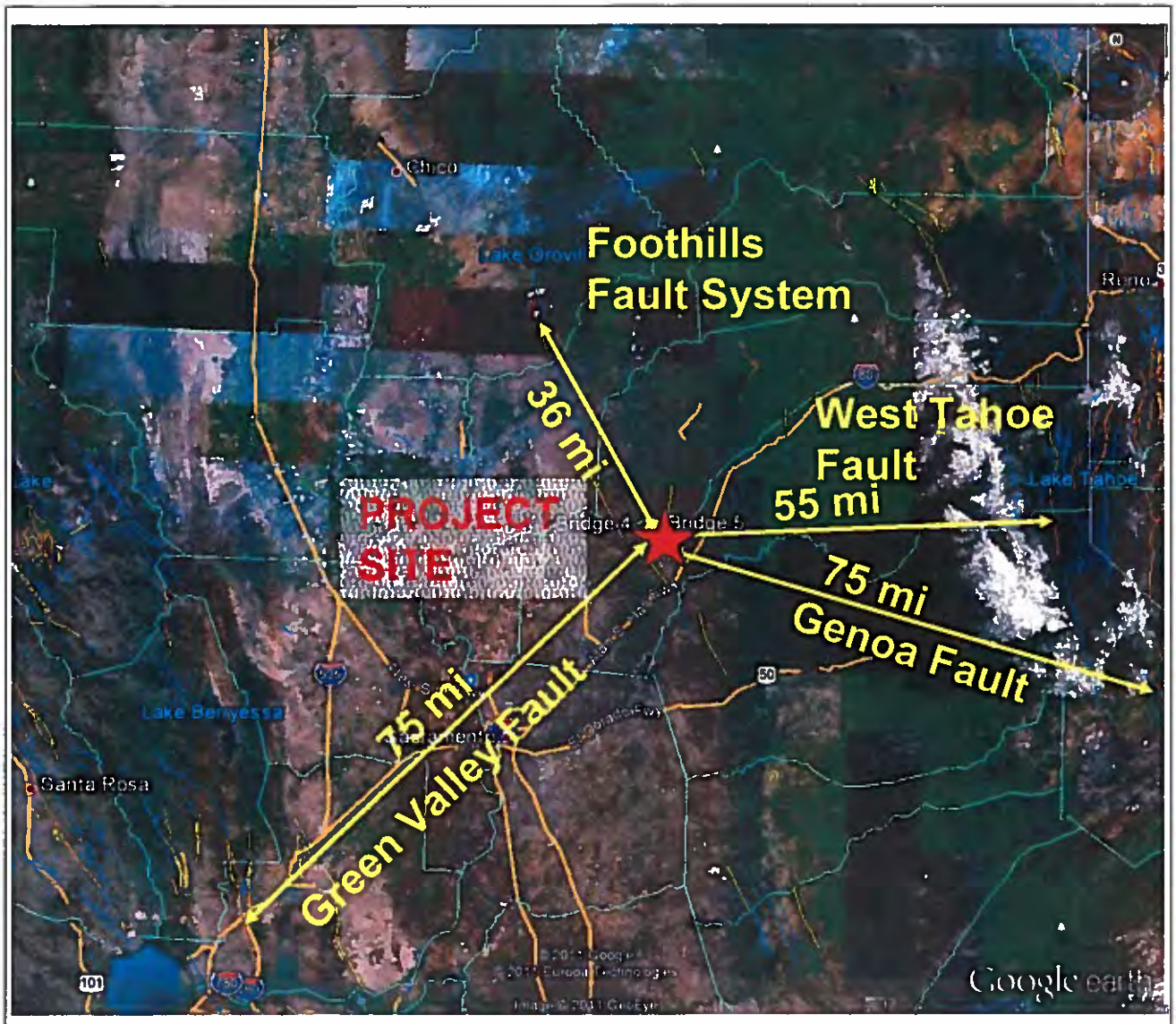

Wagner, D.L., Jennings, C.W.,Bedrossian, T.L., and Bortugno, E.J., 1981, Geologic map of the Sacramento Quadrangle, California: California Division of Mines and Geology

| PROJECT 6339-01-08 | January 2012 | | |
|---|---|---|---|
| CARLTON Engineering, Inc. | Carlton Engineering, Inc.<br>3883 Ponderosa Road<br>Shingle Springs, California 95682 | Hidden Falls Regional Park<br>Bridges 4 & 5<br>Auburn, Placer County CA | FIGURE 1 |




CGS 2010 Fault Activity Map of California

| PROJECT 6339-01-08 | January 2012 | | |
|---|---|---|---|
| CARLTON Engineering INC. | Carlton Engineering, Inc.<br>3883 Ponderosa Road<br>Shingle Springs, California 95682 | Hidden Falls Regional Park<br>Bridges 4 & 5<br>Auburn, Placer County CA | FIGURE 2 |



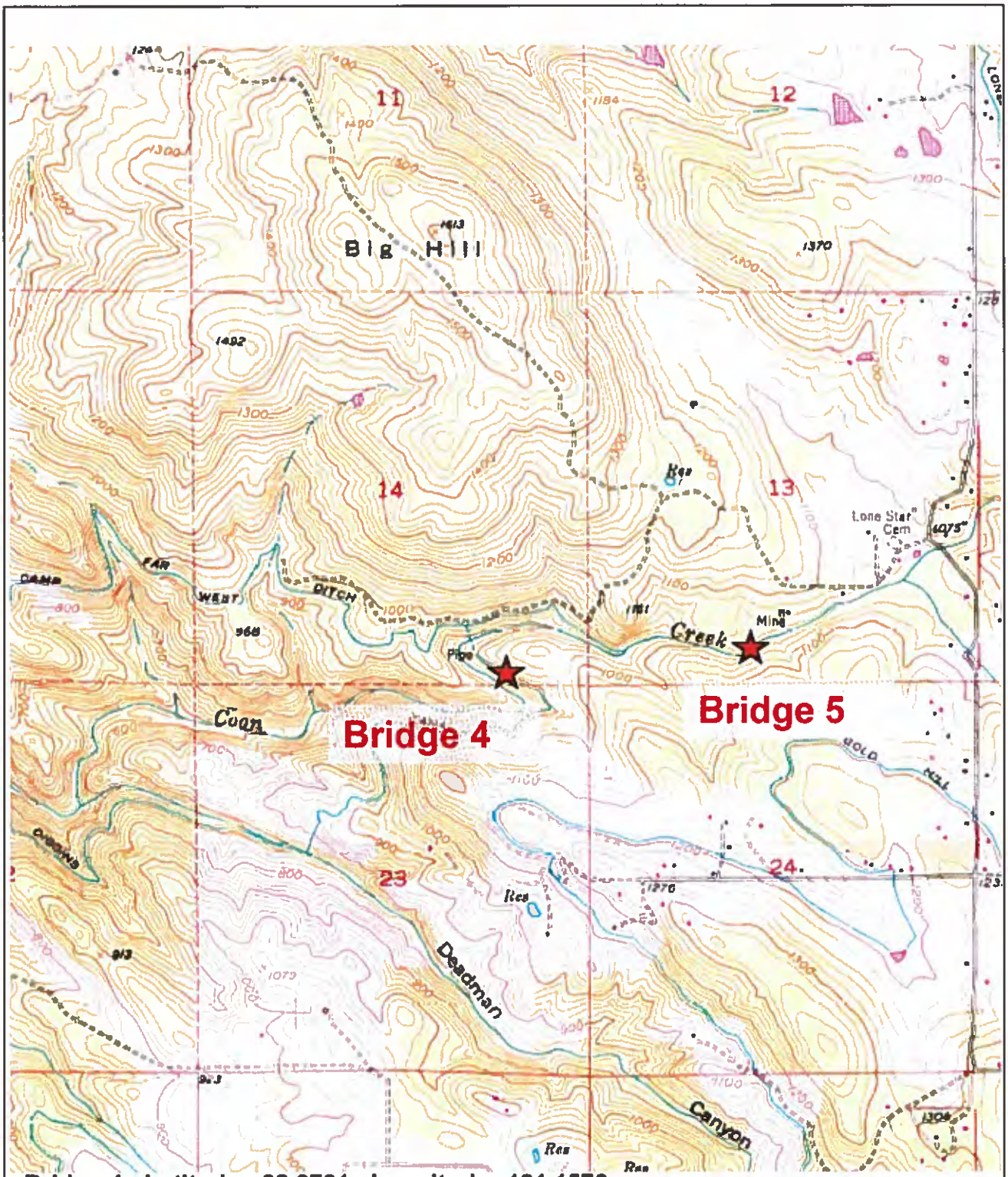

**Fault Zones:**

- West Tahoe Fault – Classified as experiencing movement within Holocene time
- Genoa Fault– Classified as experiencing movement within Quaternary to Late Quaternary time
- Foothills Fault System – North Central Reach Section (Cleveland Hill Fault )– Classified as experiencing movement within Historic time
- Green Valley Fault – Classified as experiencing movement within Historic time

**Bridge 4: Latitude: 38.9701 Longitude:-121.1576**

**Bridge 5: Latitude: 38.9917 Longitude:-121.1463**

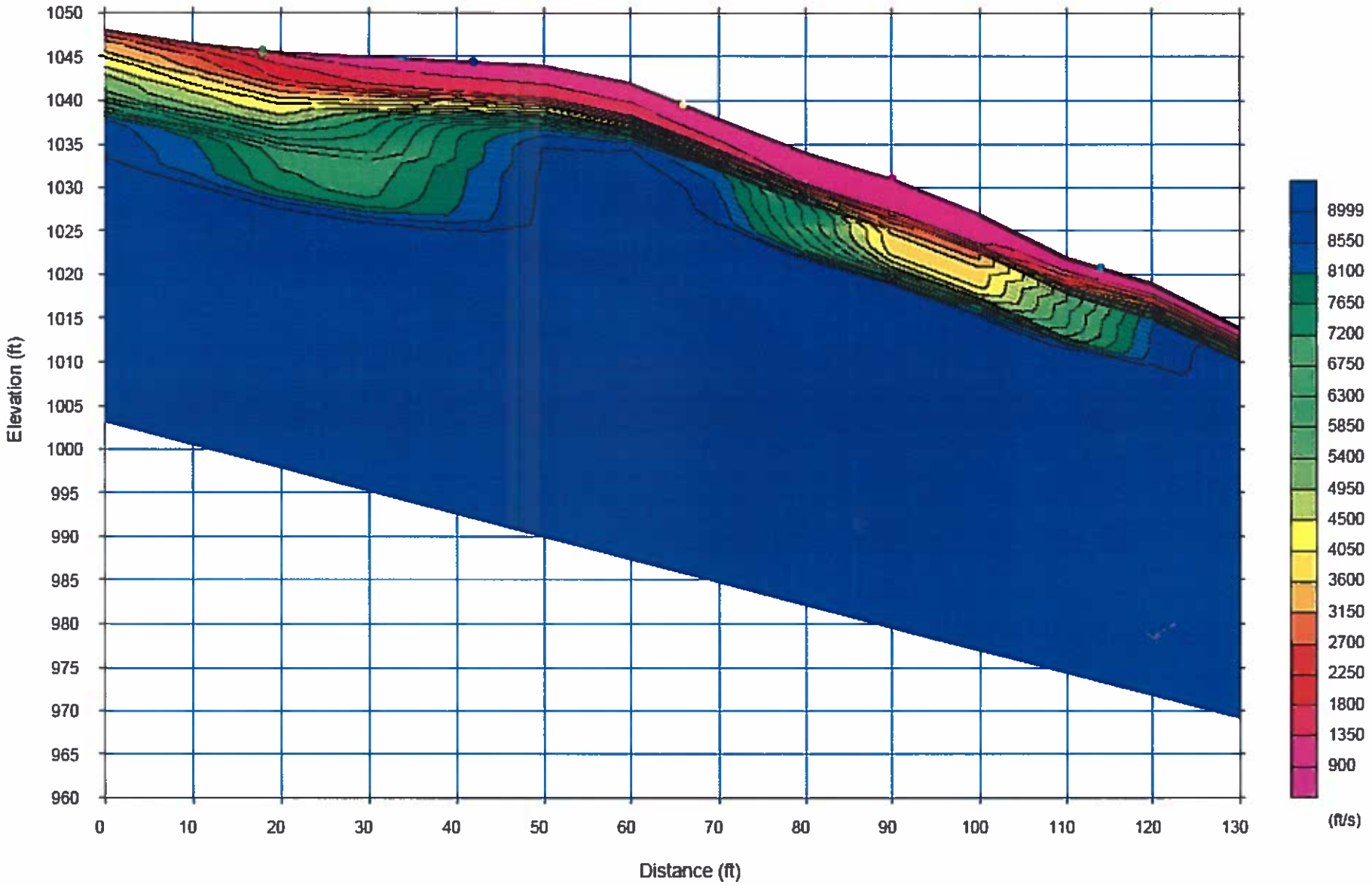
| PROJECT 6339-01-08 | January 2012 | | |
|---|---|---|---|
| CARLTON Engineering Inc. | Carlton Engineering, Inc.<br>3883 Ponderosa Road<br>Shingle Springs, California 95682 | Hidden Falls Regional park<br>Bridges 4 & 5<br>Auburn, Placer County CA | FIGURE 3 |




**Bridge 4: Latitude: 38.9701 Longitude:-121.1576**

**Bridge 5: Latitude: 38.9917 Longitude:-121.1463**

| PROJECT 6339-01-08 | January 2012 | | |
|---|---|---|---|
| Carlton Engineering, Inc.<br>3883 Ponderosa Road<br>Shingle Springs, California 95682 | | Hidden Falls Regional Park<br>Bridges 4 & 5<br>Auburn, Placer County CA | FIGURE 4 |




| PROJECT 6339-01-08 | January 2012 | | |
|---|---|---|---|
| CARLTON Engineering Inc. | Carlton Engineering, Inc.<br>3883 Ponderosa Road<br>Shingle Springs, California 95682 | Hidden Falls Regional Park<br>Bridge 5<br>Auburn. Placer County, CA | FIGURE 5<br>Seismic Refraction |

# Hidden

## General Notes

1. ALL REFERENCES TO "STANDARD SPECIFICATIONS" SHALL MEAN THE STATE OF CALIFORNIA, DEPARTMENT (CALTRANS) STANDARD SPECIFICATIONS, JULY, 2002. CONSTRUCTION NOT SPECIFIED ON THESE PLANS OR S ORDINANCES SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR FAMILIARIZE HIMSELF WITH APPLICABLE SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES.

2. CLEARING AND GRUBBING SHALL CONFORM TO THE PROVISIONS OF SECTION 16 OF THE STANDARD SPEC

3. ALL EXCAVATION, EMBANKMENT, AND BACKFILL SHALL CONFORM TO THE PROVISIONS IN SECTION 19, "EA STANDARD SPECIFICATIONS.

4. ALL GRADING SHALL CONFORM TO THE PLACER COUNTY GRADING, EROSION AND SEDIMENT CONTROL OR

5. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PLACER COUNTY DESIGN AND IMPROVEM MANUAL, AND TO THE SATISFACTION OF THE DIRECTOR OF THE DEPARTMENT OF TRANSPORTATION.

6. COMPACTION TESTS SHALL BE TAKEN AT A MAXIMUM OF TWO (2) FOOT LIFTS AND IN CONFORMANCE WITH GRADING ORDINANCE. TESTS SHALL BE AT THE DISCRETION OF THE DEPARTMENT OF TRANSPORTATION IN: TESTING SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

7. FILLS SHALL BE MOISTURE CONDITIONED TO A UNIFORM MOISTURE CONDITION AT LEAST 2 PERCENT ABC CONTENT AND COMPACTED TO A MINIMUM OF 95% (OR AS OTHERWISE STATED IN THE GEOTECHNICAL REPOR DENSITY AS DETERMINED BY THE ASTM D 1557 TEST PROCEDURE.

8. THE TOP EIGHT INCHES OF SUBGRADE BENEATH PAVEMENT AREAS SHALL BE MOISTURE CONDITIONED CONDITION AT LEAST 2 PERCENT ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF S DENSITY AS DETERMINED BY THE ASTM D 1557 TEST PROCEDURE.

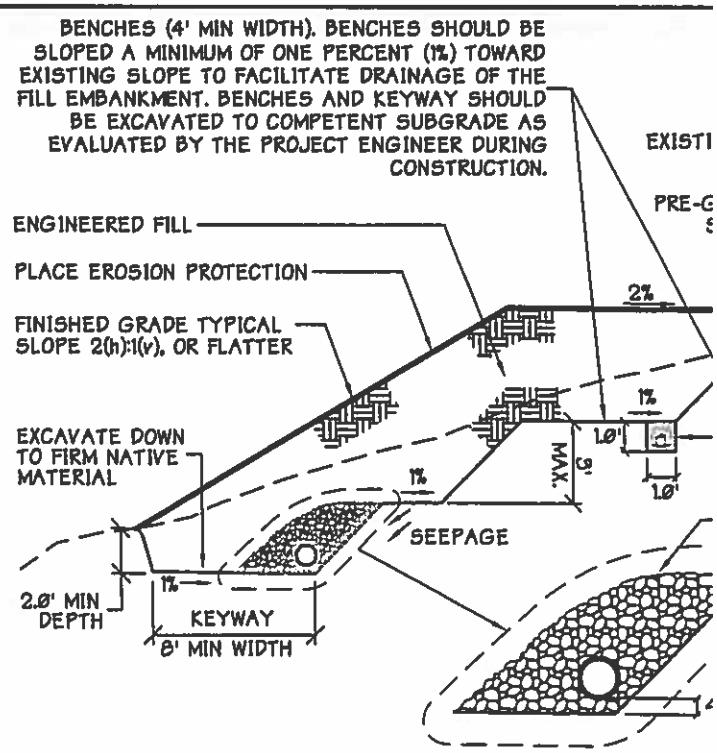
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEAS MEASURES SHALL CONFORM TO THE PLACER COUNTY GRADING, EROSION AND SEDIMENT CONTROL ORDINAN SEDIMENT LADEN RUNOFF DOES NOT LEAVE THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGH THE DURATION OF THE PRO ACTIVITIES ARE NOT COMPLETED BY OCTOBER 15, THE DEVELOPER SHALL IMPLEMENT THE TEMPORARY ERO

10. PERIODIC INSPECTION AND REPAIR WILL BE REQUIRED BY THE OWNER TO KEEP DRAINAGE IMPROVEMEN OF SEDIMENT DEPOSITS AND VEGETATIVE MATERIALS IN PIPES, INLET STRUCTURES AND DRAINAGE INVER AT A REGULAR MAINTENANCE INTERVAL TO PREVENT ACCUMULATION AND OBSTRUCTION OF DRAINAGE IMP

11. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPES AND/OR STRUCTURES SHOWN O OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION UTILITIES AND SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO ANY AND ALL PUBLIC OR PRIVATE SHOWN HEREON.

DRAINS

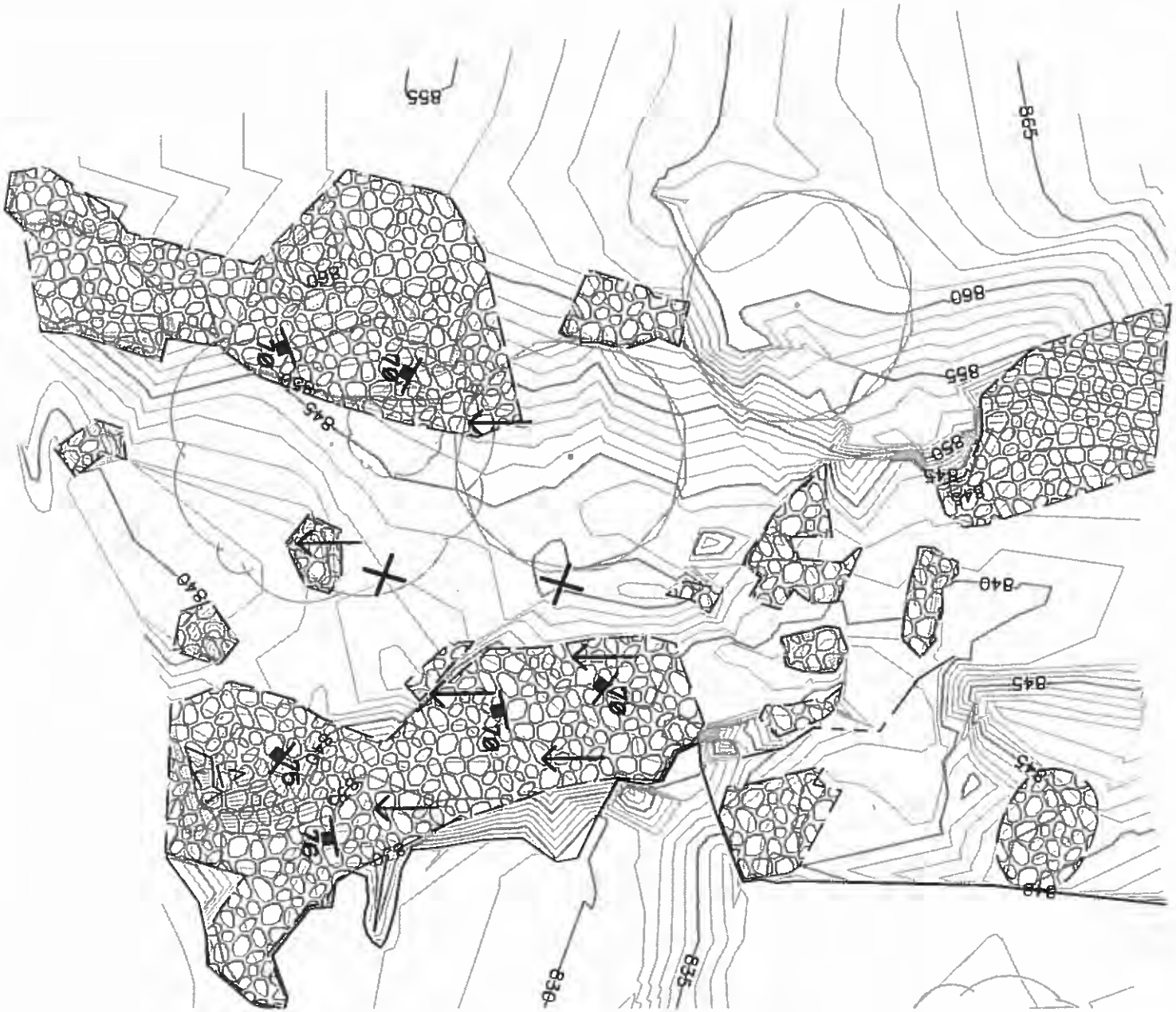
1. INSTALL SUBDRAIN WHERE SUBSURFACE SATURATION IS ENCOUNTERED, OR SUSPECTED TO BE A POTENTIAL CONDITION OF CONCERN.
2. ALL DRAIN ROCK SHALL BE CALTRANS SECTION 68, CLASS 2 PERMEABLE MATERIAL, OR AS APPROVED BY CARLTON ENGINEERING.
3. PERFORATED PIPE, (ADS N-12, OR APPROVED EQUAL), SLOPE 1% MIN TO DRAIN. PIPE DRAINAGE SHOULD BE COLLECTED IN A SOLID CONDUIT AND DIRECTED TO A SUITABLE LOCATION FOR DRAINAGE. PIPE DIAMETER TO BE DETERMINED BY ENGINEER ON CASE-BY-CASE BASIS.




**Keyway Detail**

20Jun2012 1:28pm 639901_G1

02Feb2012 2:50pm 639901_G2

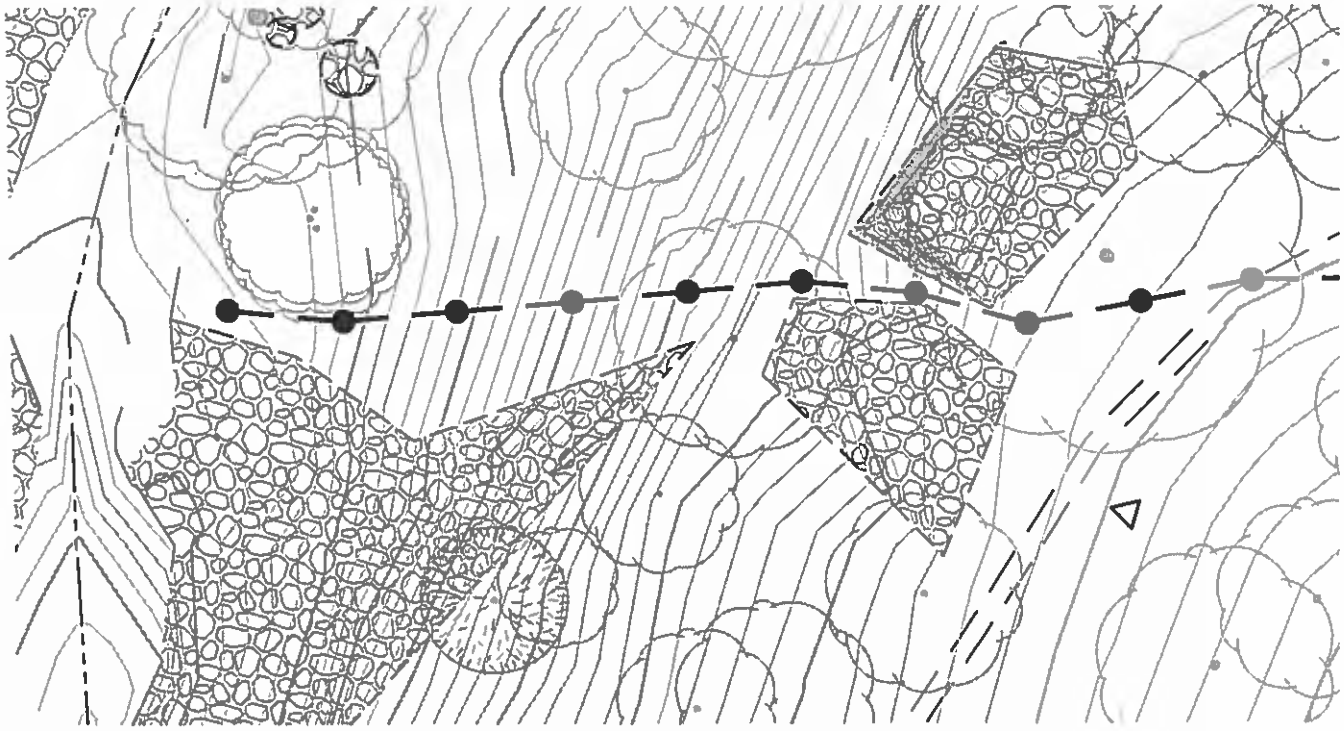


## Legend

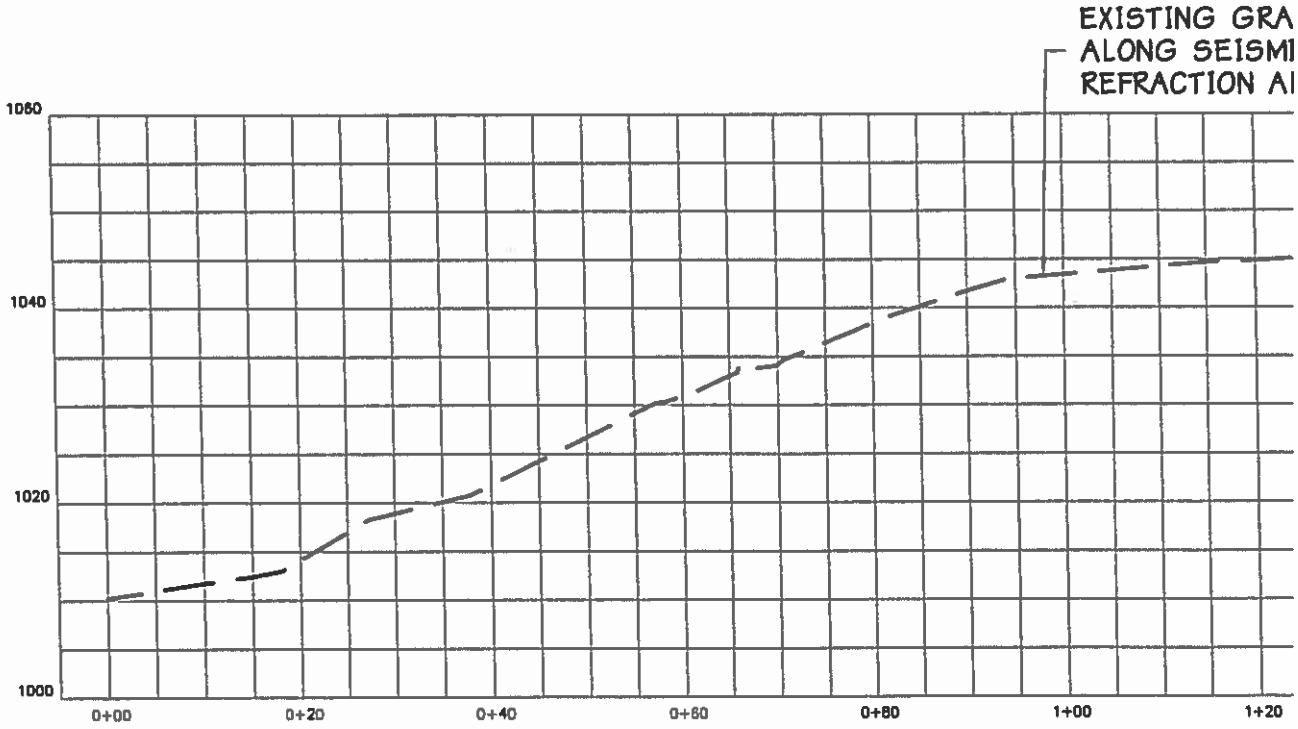
SCHMIDT REBOUND TEST (10/LOCAT

ROCK PARTING PLANE ORIENTATIC

02Feb2012 2:57pm 639901_G3

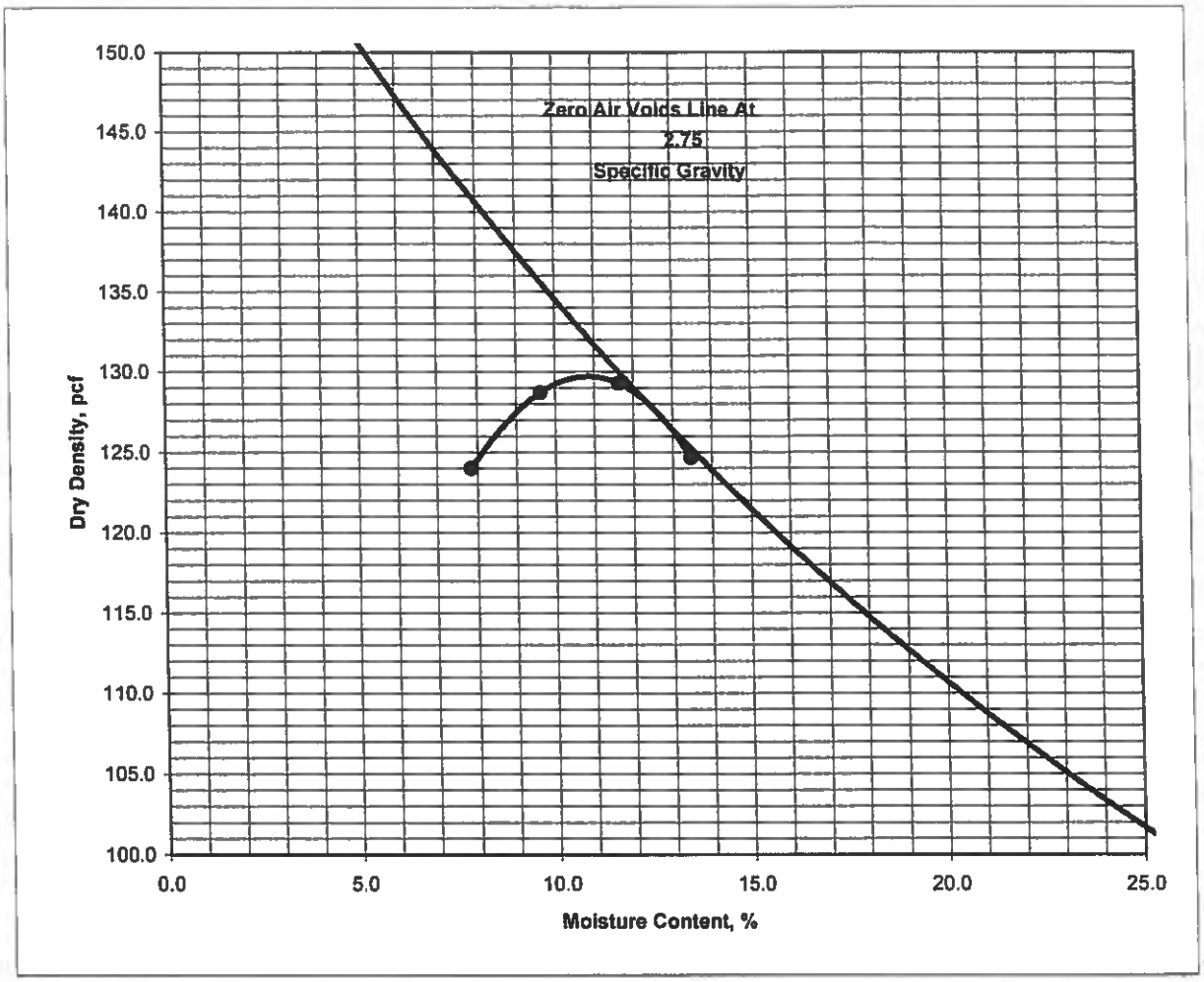


# SEISMIC REFRACTION LINE: PLAN




# SEISMIC REFRACTION LINE: PROFILE

# MOISTURE DENSITY RELATIONSHIP CURVE




| | |
|---|---|
| **Maximum Dry Density (pcf)** | **130.0** |
| **Optimum Moisture Content (%)** | **11.0** |

Test Method: ASTM D1557 Method: B

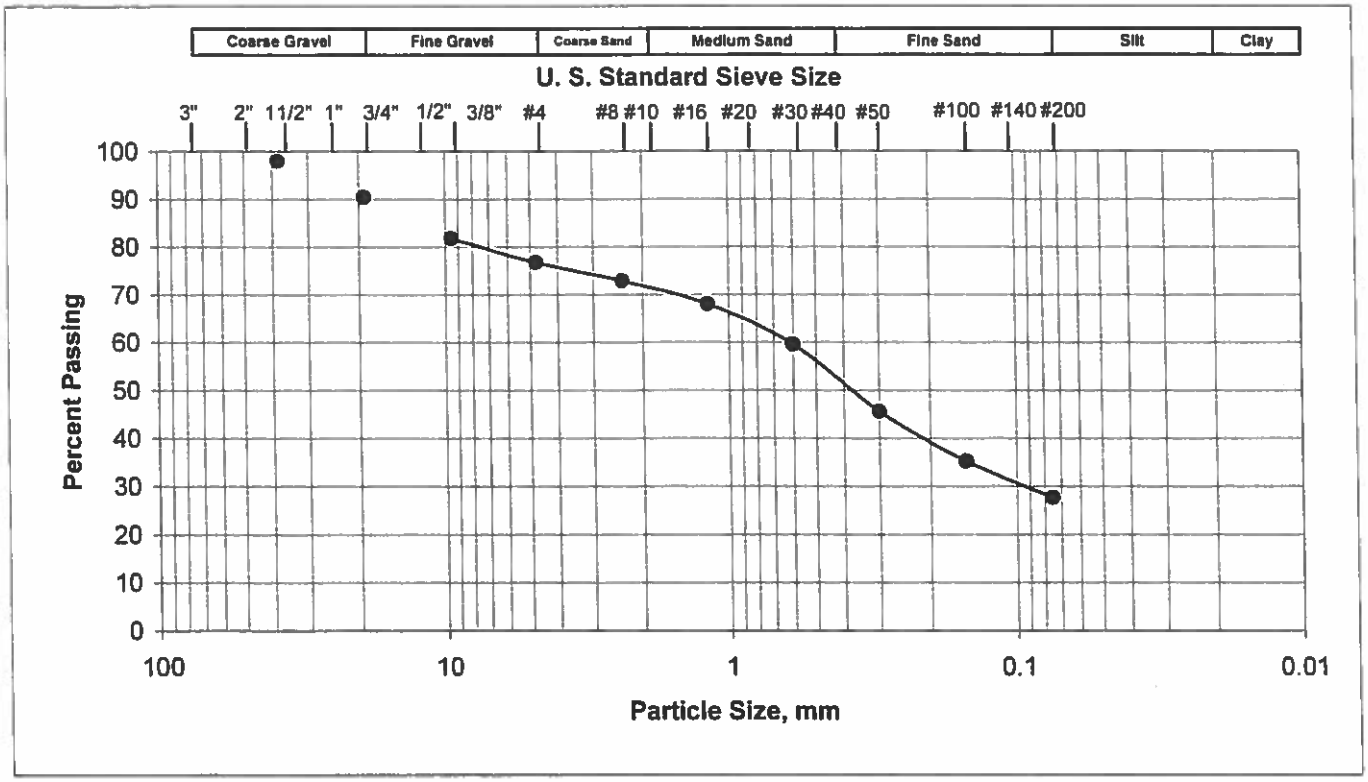
SAMPLE IDENTIFICATION: Bulk E
SAMPLE DESCRIPTION: Light brown silt with sands
SAMPLE LOCATION: Onsite CE-4

LAB NUMBER: 6520
GROUP SYMBOL:

| | | | |
|---|---|---|---|
| **PROJECT NUMBER:** | **6339-01-08** | November 24, 2008 | **Hidden Falls Regional Park** |


CARLTON Engineering Inc.
Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, California 95682

# SIEVE ANALYSIS TEST REPORT




| U.S. STANDARD SIEVE SIZE | SIEVE SIZE, mm | PERCENT PASSING |
|---|---|---|
| 1 1/2 INCH | 38.1 | 98 |
| 3/4 INCH | 19.1 | 90 |
| 3/8 INCH | 9.5 | 82 |
| NO. 4 | 4.75 | 77 |
| NO. 8 | 2.36 | 73 |
| NO. 16 | 1.18 | 68 |
| NO. 30 | 0.6 | 60 |
| NO. 50 | 0.3 | 46 |
| NO.100 | 0.15 | 35 |
| NO 200 | 0.075 | 28 |

Test Method ASTM C136

SAMPLE IDENTIFICATION: TP1-A LAB NUMBER: 6516

SAMPLE DESCRIPTION: Light brown Silty Sand

SAMPLE LOCATION: Onsite Group Symbol: SM

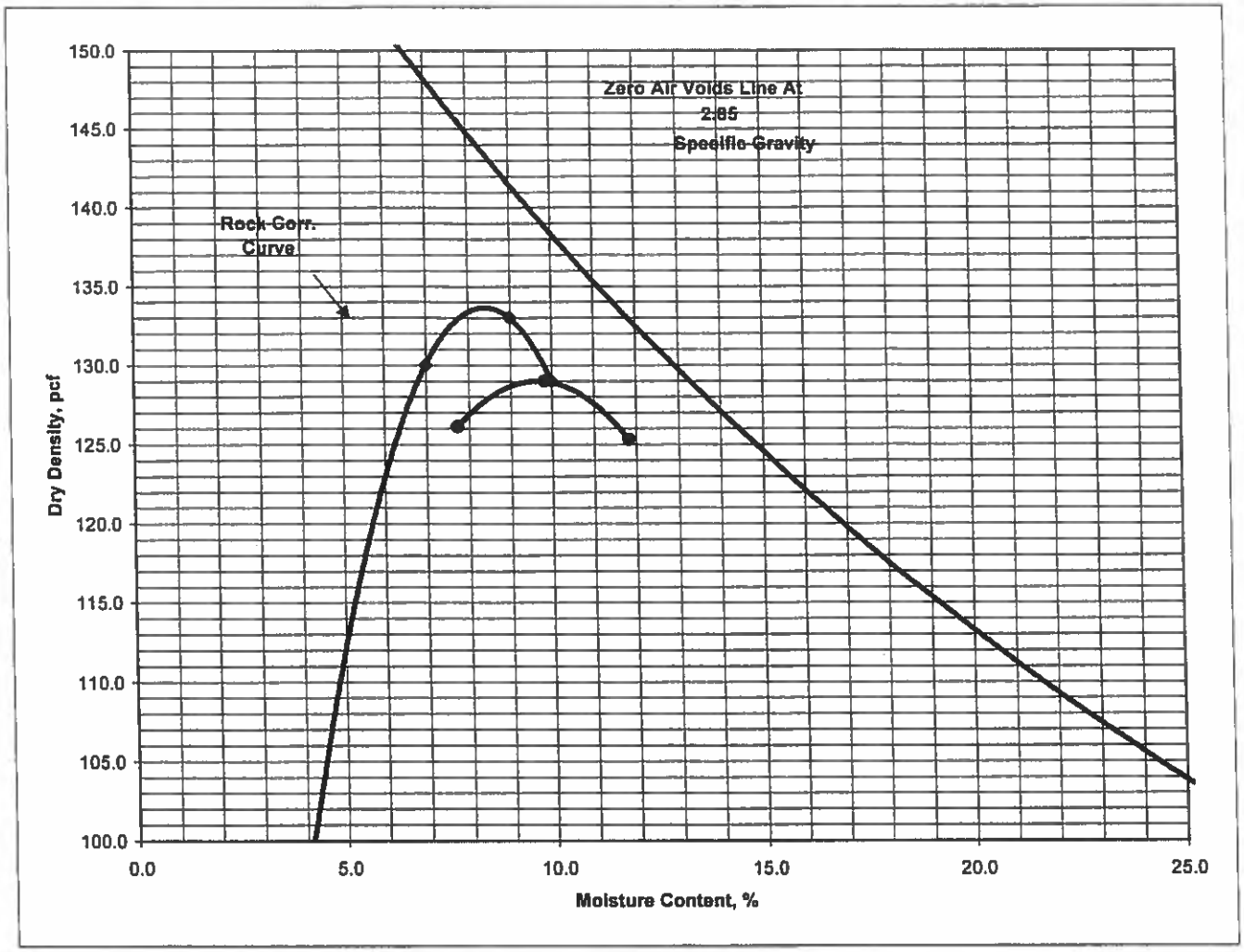
**PROJECT NUMBER:** 6339-01-08 November 3, 2008

**Hidden Falls Regional Park**


CARLTON Engineering Inc.

Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, California 95682

# MOISTURE DENSITY RELATIONSHIP CURVE




| ROCK CORRECTED MAXIMUM | |
|---|---|
| Maximum Dry Density (pcf) | 133.0 |
| Optimum Moisture Content (%) | 9.0 |

| | | | |
|---|---|---|---|
| Percentage of Plus 3/4" | 12.6 | Minus 3/4" Max. Dry Den. (pcf) | 129.0 |
| Bulk Specific Gravity Plus 3/4" | 2.65 | Minus 3/4" Optimum Moist. Cont. (%) | 10.0 |

Test Method: ASTM D1557 Method: C

SAMPLE IDENTIFICATION: Bulk B TP2-A
SAMPLE DESCRIPTION: Red-Gray Clayey Sand w/ Gravel
SAMPLE LOCATION: Onsite

LAB NUMBER: 6517

| PROJECT NUMBER: | 6339-01-08 | November 3, 2008 | Hidden Falls Regional Park |
|---|---|---|---|


Carlton Engineering, Inc.
3883 Ponderosa Road
Shingle Springs, California 95682

**Sunland Analytical**
11353 Pyrites Way, Suite 4
Rancho Cordova, CA 95670
(916) 852-8557

Date Reported 11/06/2008
Date Submitted 11/04/2008

To: Toby Phillips
Carlton Engineering, Inc.
3883 Ponderosa Rd.
Shingle Springs, CA 95682

From: Gene Oliphant, Ph.D. \ Randy Horney
General Manager \ Lab Manager

The reported analysis was requested for the following location:
Location : 6339-01-08 Site ID : BULK A.
Thank you for your business.

* For future reference to this analysis please use SUN # 54744-109984.

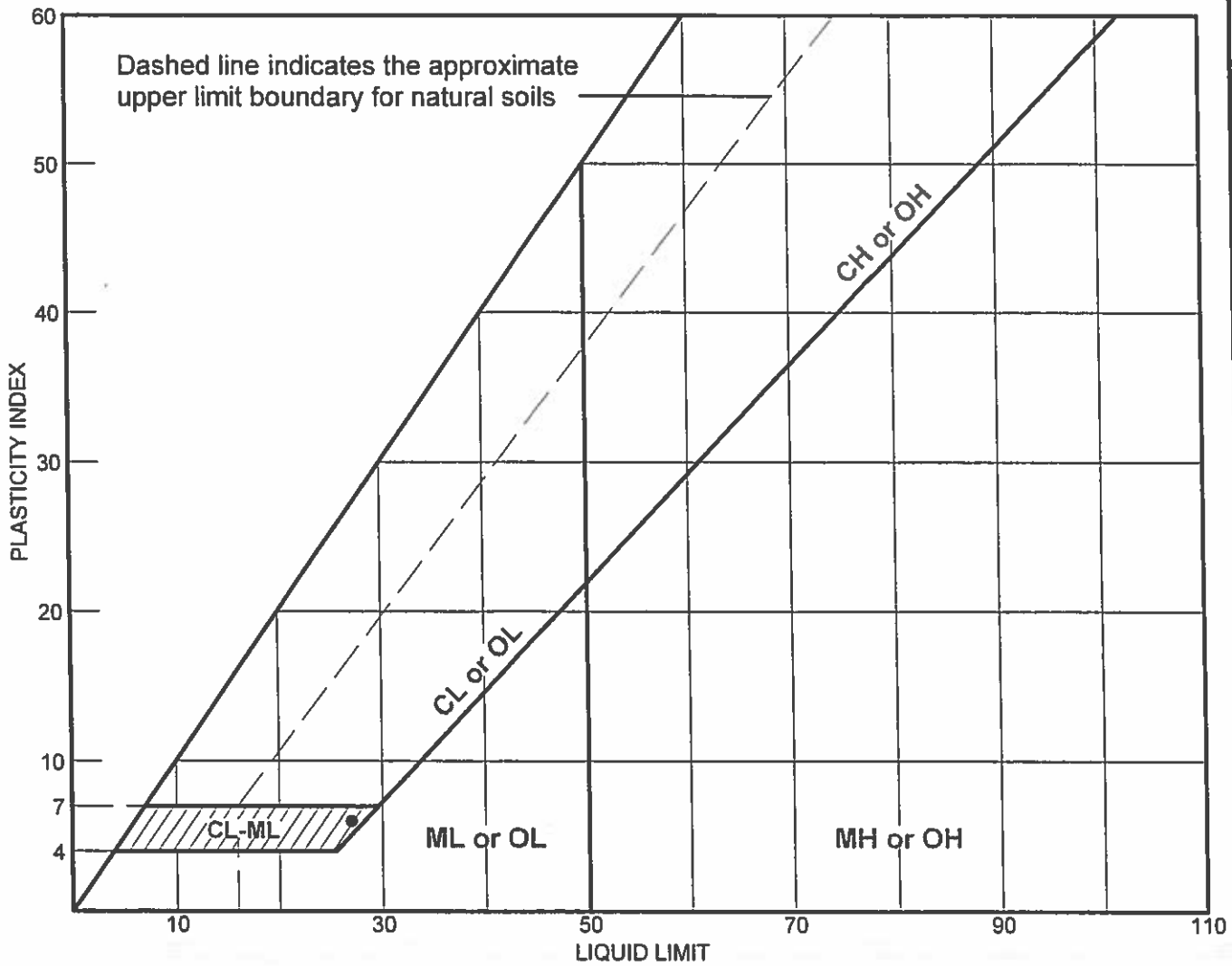
---

EVALUATION FOR SOIL CORROSION

| | | |
|---|---|---|
| Soil pH | 6.42 | |
| Minimum Resistivity | 6.43 ohm-cm (x1000) | |
| Chloride | 9.3 ppm | 00.00093 % |
| Sulfate | 8.1 ppm | 00.00081 % |

METHODS
pH and Min.Resistivity CA DOT Test #643
Sulfate CA DOT Test #417, Chloride CA DOT Test #422

# LIQUID AND PLASTIC LIMITS TEST REPORT




**SOIL DATA**

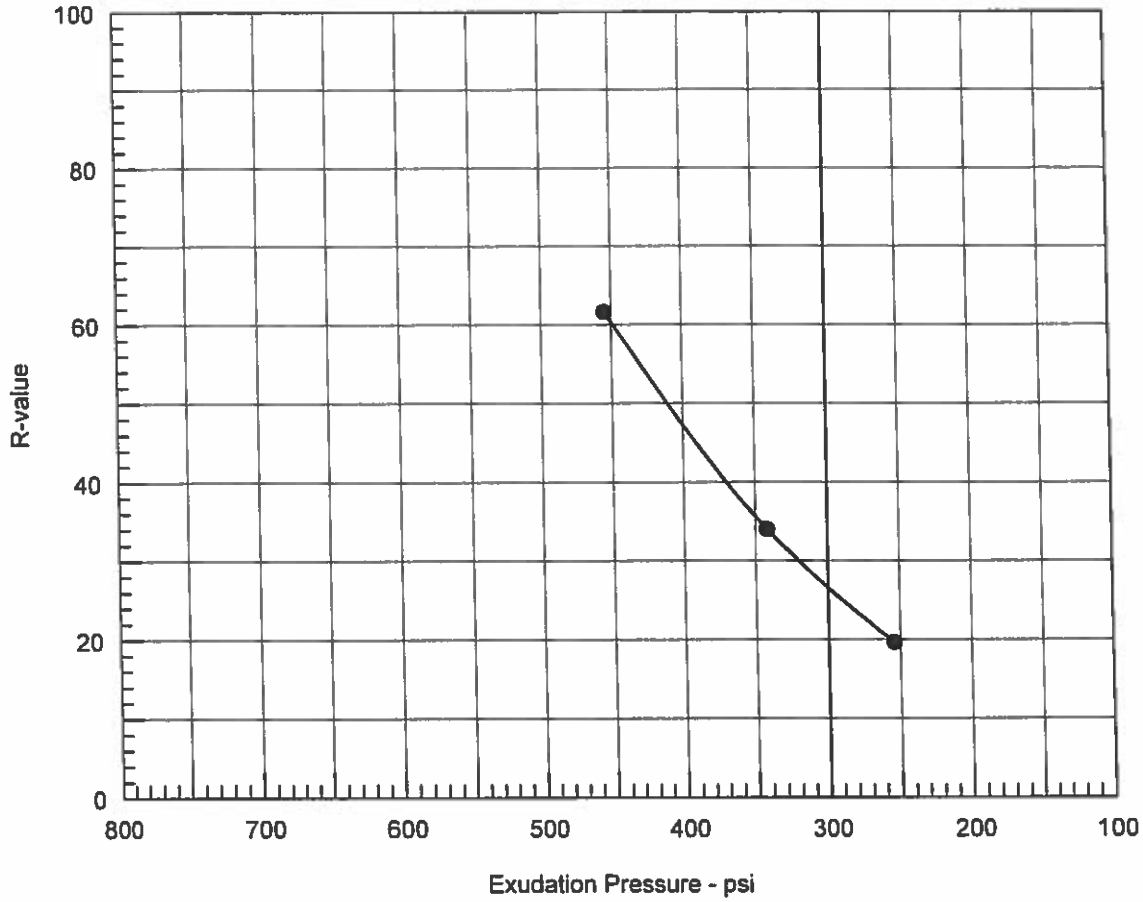
| SYMBOL | SOURCE | SAMPLE NO. | DEPTH (ft.) | NATURAL WATER CONTENT (%) | PLASTIC LIMIT (%) | LIQUID LIMIT (%) | PLASTICITY INDEX (%) | USCS |
|---|---|---|---|---|---|---|---|---|
| ● | | Bulk F | | | 21 | 27 | 6 | |

Taber
Since 1954

**Client:** Carlton Engineering Inc.
**Project:** Hidden Falls Regional Park / 6339-01-08

**Project No.:** 2T2/308/074-15 **Figure** 2

# R-VALUE TEST REPORT




**Resistance R-Value and Expansion Pressure - Cal Test 301**

| No. | Compact. Pressure psi | Density pcf | Moist. % | Expansion Pressure psf | Horizontal Press. psi @ 160 psi | Sample Height in. | Exud. Pressure psi | R Value | R Value Corr. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 350 | 126.6 | 13.4 | 175 | 45 | 2.52 | 455 | 62 | 62 |
| 2 | 300 | 125.0 | 14.4 | 79 | 89 | 2.56 | 342 | 33 | 34 |
| 3 | 255 | 121.7 | 15.5 | 0 | 113 | 2.56 | 254 | 19 | 20 |
| | | | | | | | | | |

| Test Results | Material Description |
|---|---|
| **R-value at 300 psi exudation pressure =** 27 | Visual: Tan red slighty sandy clayey silt. |

**Project No.:** 2T2/308/074-15
**Project:** Hidden Falls Regional Park / 6339-01-08
**Sample Number:** Bulk E

**Date:** 11/14/2008

**Tested by:** RJF
**Checked by:**
**Remarks:**

R-VALUE TEST REPORT

**Taber Consultants**

**Figure 1**

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 1

Project Number: 6339-01-08

Location: Bridge 4

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 64 |
| 2) | 68 |
| 3) | 70 |
| 4) | 62 |
| 5) | 64 |
| 6) | 70 |
| 7) | 64 |
| 8) | 65 |
| 9) | |
| 10) | |

Average Hammer Reading
66

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
11,500.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 2

Project Number: 6339-01-08

Location: Bridge 4

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 34 |
| 2) | 50 |
| 3) | 58 |
| 4) | 42 |
| 5) | 44 |
| 6) | 36 |
| 7) | 60 |
| 8) | 45 |
| 9) | |
| 10) | |

Average Hammer Reading
46

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
7,000.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 3

Project Number: 6339-01-08

Location: Bridge 4

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 32 |
| 2) | 40 |
| 3) | 34 |
| 4) | 36 |
| 5) | 48 |
| 6) | 34 |
| 7) | 52 |
| 8) | 30 |
| 9) | |
| 10) | |

Average Hammer Reading
38

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
5,200.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 4

Project Number: 6339-01-08

Location: Bridge 4

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 68 |
| 2) | 76 |
| 3) | 72 |
| 4) | 75 |
| 5) | 78 |
| 6) | 70 |
| 7) | 74 |
| 8) | 65 |
| 9) | |
| 10) | |

Average Hammer Reading
72

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
11,400.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 5

Project Number: 6339-01-08

Location: Bridge 4

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 28 |
| 2) | 34 |
| 3) | 32 |
| 4) | 38 |
| 5) | 34 |
| 6) | 32 |
| 7) | 32 |
| 8) | 34 |
| 9) | |
| 10) | |

Average Hammer Reading
33

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
4,200.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 6

Project Number: 6339-01-08

Location: Bridge 4

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 38 |
| 2) | 42 |
| 3) | 40 |
| 4) | 40 |
| 5) | 46 |
| 6) | 40 |
| 7) | 42 |
| 8) | 44 |
| 9) | |
| 10) | |

Average Hammer Reading
42

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
6,100.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 1

Project Number: 6339-01-08

Location: Bridge 5

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 58 |
| 2) | 52 |
| 3) | 56 |
| 4) | 70 |
| 5) | 68 |
| 6) | 54 |
| 7) | 40 |
| 8) | 50 |
| 9) | |
| 10) | |

Average Hammer Reading
56

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
9,650.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 2

Project Number: 6339-01-08

Location: Bridge 5

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 48 |
| 2) | 56 |
| 3) | 70 |
| 4) | 58 |
| 5) | 54 |
| 6) | 50 |
| 7) | 48 |
| 8) | 50 |
| 9) | |
| 10) | |

Average Hammer Reading
54

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
9,050.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 3

Project Number: 6339-01-08

Location: Bridge 5

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 44 |
| 2) | 48 |
| 3) | 46 |
| 4) | 52 |
| 5) | 58 |
| 6) | 48 |
| 7) | 50 |
| 8) | 46 |
| 9) | |
| 10) | |

Average Hammer Reading
49

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
7,700.00

ASTM C 805

CARLTON
Engineering Inc.

# Schmidt Hammer Test Report

Date: 12/22/2011 Time:

Project Name: Hidden Falls Regional

Test Number 4

Project Number: 6339-01-08

Location: Bridge 5

Hammer Identification:

Air Temperature: 65

Mix Design Number: NA

Design Strength (PSI): NA

Surface Characteristics: Bedrock

Orientation of Hammer: Vertical

| | Hammer Reading |
|---|---|
| 1) | 42 |
| 2) | 58 |
| 3) | 60 |
| 4) | 52 |
| 5) | 54 |
| 6) | 48 |
| 7) | 50 |
| 8) | |
| 9) | |
| 10) | |

Average Hammer Reading
52

Adjusted Hammer Reading

Unconfined Compressive Strength (PSI)
8,500.00

ASTM C 805

# APPENDIX H

Hydrology Report for Bridge Crossing

# Hydrologic and Hydraulic Analysis for Two Bridge Locations for

# Hidden Falls Regional Park

## - Phase 1A
## Auburn
## Placer County
## California

*Prepared for:*

**Placer County Department of Facilities Services Parks and Grounds Division**
**Tim Arndt, Senior Project Manager**
**11476 "C" Avenue**
**Auburn, CA 95603**

REGISTERED PROFESSIONAL ENGINEER
MICHAEL D. HAUGE
NO. 61661
Exp. 6/30/13
CIVIL
STATE OF CALIFORNIA

February 2012
Project No.6339-01-08


***Prepared by:***
**Carlton Engineering, Inc**
**3883 Ponderosa Road**
**Shingle Springs, Ca**
**530-677-5515**

CARLTON
Engineering Inc.

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## I. EXECUTIVE SUMMARY:

This hydrologic and hydraulic report has been prepared at the request of the Placer County Department of Facilities Services Parks and Grounds Division to review and address the impacts of two proposed bridge crossings on Coon Creek east of the Hidden Falls Regional Park (HFRP). This report provides a descriptive and analytic observation of the 100-year floodplains as they relate to the proposed bridge locations, and has been written with the intent of presenting the clearest picture possible of the impacts the two bridges will have on the floodplain of Coon Creek. This report will not be used to establish flood mapping for the Federal Emergency Management Agency (i.e. Letter of Map Revision).

The purpose of the bridge crossings is to provide trail network support, pedestrian, equestrian, and connection with existing facilities and access areas east of HFRP.

Coon Creek is a typical Sierra Nevada waterway, draining from east to west, and is shown on the USGS quad map (Gold Hill, CA) as a solid blue line for most of its length throughout the watershed basin. There were many near vertical waterfall sections and alternating bank geometry and cover.

The hydrologic analysis for Coon Creek was based on an existing model provided to Carlton Engineering (Carlton) by the Placer County Flood Control District (District). The existing model was prepared and analyzed with the use of United States Army Corps of Engineers (USACE) Hydrologic Engineering Center HEC-1 modeling program (HEC-1), and analyzed the 100-year peak storm event. The HEC-1 data file provided by the District was updated by Carlton to include the 10-, 25-, and 50-year storm events. The peak flow rates at the two bridge locations are identified in Section IV.B, Table 4.

**Bridge 4**

Bridge 4 has a drainage area of approximately 26.5 square miles, and is a 10 ft wide (outside to outside, 8 ft deck width), 85 ft long center pre-manufactured steel truss bridge, with two approximately 22 ft long pre-manufactured steel truss bridges on either side supported by two center columns. Bridge 4 is located in a narrow canyon and will be only accessible by pedestrian/equestrian or quads used by Park officials. Bridge 4 will have concrete abutments on either side of Coon Creek and two supporting columns constructed outside of the ordinary high water mark and 100-year floodplain. Bridge 4 will be located above the minimum 3 ft freeboard of the 100-year floodplain.

**Bridge 5**
Bridge 5 has a drainage area of approximately 26.1 square miles, and is a 12 ft wide (deck width), 100 ft long pre-manufactured steel truss bridge. It may provide access for vehicles, pedestrians, and equestrians. Bridge 5 will have concrete abutments on either side of Coon Creek and will be constructed outside the ordinary high water mark. The south abutment will be located within the 100-year floodplain. Bridge 5 will be located above the minimum 3 ft freeboard of the 100-year floodplain. The southern abutment will be designed to withstand the water velocity and scour during 100-yr storm events.

## II. PROJECT INTRODUCTION:

The site is located east of the 1,200 acre Hidden Falls Regional Park northwest of Auburn in Placer County; situated between Garden Bar Road, Mt. Vernon Road, and Bell Road, in Township 13 North, Range 7 East, Sections 13, and 14. Site improvements specific to this report include two (2) proposed bridge locations with accompanying abutments, and approach roads.

The construction access for Bridge 4 is from Hubbard Road through the Campbell property (APN 026-080-059). The HFRP construction access for Bridge 5 is from Orr Creek Lane through the Placer Land Trust property (formerly the Taylor Ranch, APN 026-120-028). The proposed bridge crossings are located along Coon Creek, which runs east to west through the park. The elevation for the sites vary from approximately 830 feet at Bridge 4 in the west to 1015 feet at Bridge 5 in the east.

The purpose of the bridge crossings is to provide trail network support, and connection with existing facilities and access to areas east of HFRP.

The purpose of this hydrologic and hydraulic analysis is to make a determination of significant impacts on Coon Creek as a result of construction of the two bridges.

This report has been prepared in part based on the following available information:

- USGS Topographic Survey
- TopoDepot, 2012
- Carlton Engineering Topographic Survey, 2009, 2012 (Note: All elevations shown in this analysis are based on NAVD 88. To convert elevations from NAVD 88 to NGVD 29 subtract 2.40 feet)
- Google Earth, 2010

- CH2M Hill 1991 Cross Canal Watershed Model (Existing USACE HEC-1)
- Placer County Flood Control and Water Conservation District Stormwater Management Manual, September 1, 1990
- Carlton Engineering Geotechnical Report (2010, 2012)
- Carlton Engineering Bridge Schematic Design Plans (February 2012)

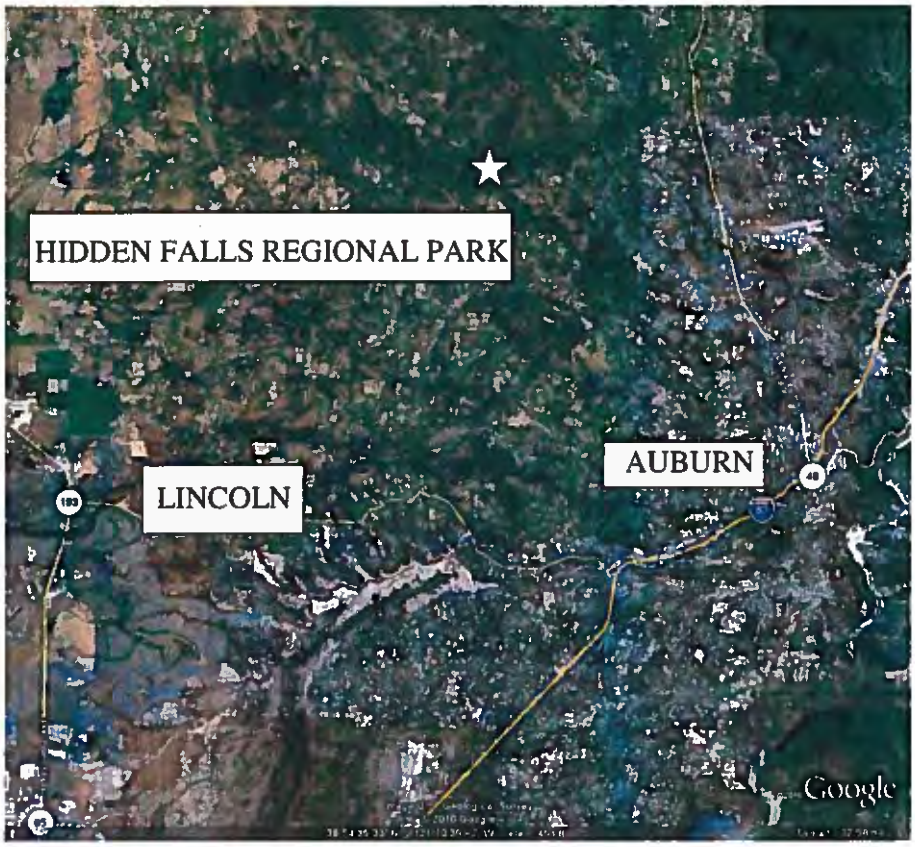



**Figure 1: HFRP Location Map**

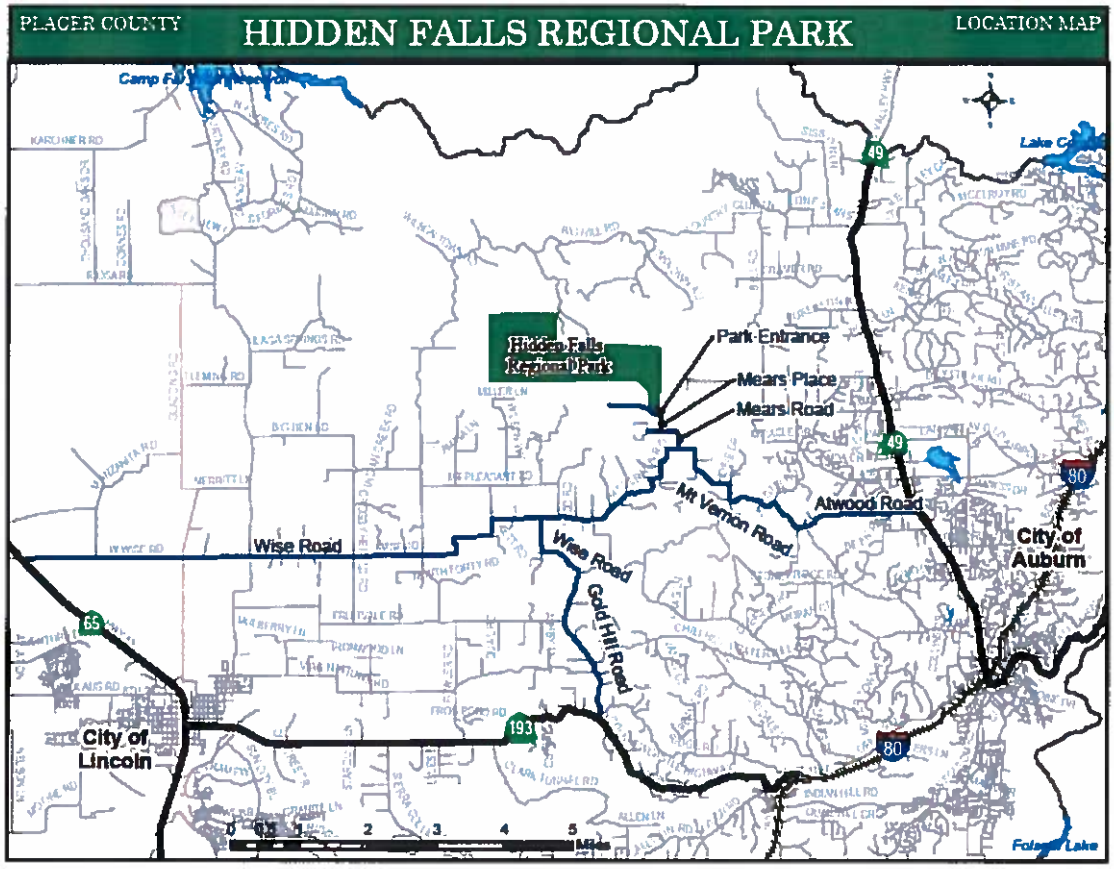



**Figure 2: HFRP Vicinity Map**

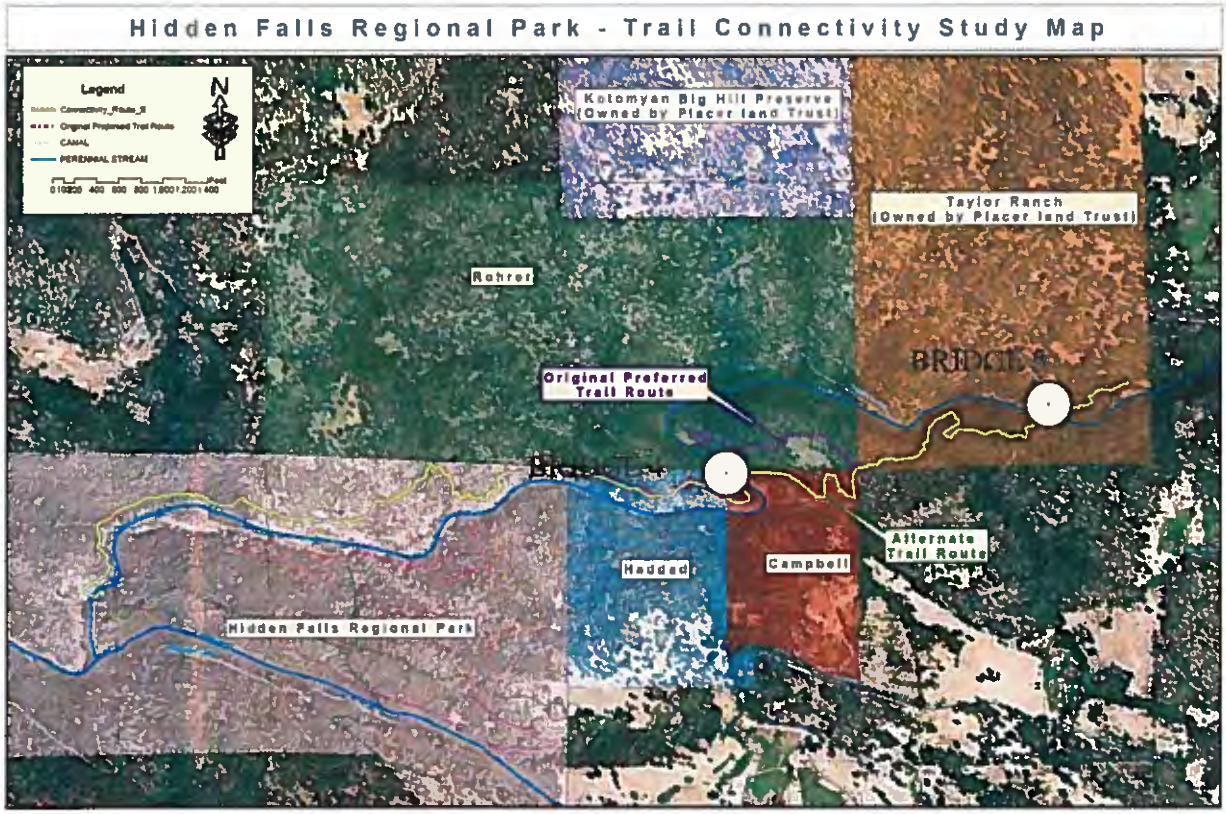



**Figure 3: HRFP Project Map**

## III. OBJECTIVES:

This report outlines the hydrologic and hydraulic conditions associated with the development of two proposed bridge located east of the HFRP. The main objectives of this report are:

- Review an existing hydrology model prepared by others, which determined the 100-yr peak flow rates.
- Prepare a hydraulic model to determine existing and proposed conditions water depth and velocities at the two bridge locations. The data will be used to design erosion and scour protection for the two bridge locations.

## IV. HYDROLOGY

### A. PREVIOUS STUDIES

A drainage study was prepared by CH2M Hill in 1991 entitled *Cross Canal Watershed Model.* The drainage model was prepared using the USACE Hydrologic Engineering Center Flood Hydrograph Package (HEC-1) to determine the peak flows associated with the 100-yr design storm. The HEC-1 model assumed full buildout of the watershed. The model was modified by the Placer County Flood Control District (District) in 1992 (see Figure 4 and CCFU.H10 in Appendix B for the original HEC-1 run).

```
1*****************************************
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*                                       *
*          SEPTEMBER 1990               *
*                                       *
*           VERSION 4.0                 *
*                                       *
*                                       *
*                                       *
*  RUN DATE  10/13/1995  TIME  12:00:20 *
*                                       *
*                                       *
*                                       *
*****************************************
*****************************************
```

```
*
*   U.S. ARMY CORPS OF ENGINEERS
*   HYDROLOGIC ENGINEERING CENTER
*        609 SECOND STREET
*     DAVIS, CALIFORNIA 95616
*        (916) 756-1104
*
```

```
X    X  XXXXXXX  XXXXX        X
X    X  X       X    X       XX
X    X  X       X            X
XXXXXX  XXXX    X      XXXXX X
X    X  X       X            X
X    X  X       X    X       X
X    X  XXXXXXX  XXXXX       XXX
```

```
THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KP.

THE DEFINITIONS OF VARIABLES -NPINP- AND -NPTOP- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -ANSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBROUTINE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                    HEC-1 INPUT                                    PAGE  1

     LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

                   * FEP Vers 1.6 8/11/94
                   * I=H:\DSA\U.INP O=CCFU.H11 C=AUAA N=100
                   * Input File Name = H:\DSA\U.INP
       1           ID   CROSS CANAL WATERSHED MODEL
       2           ID   Future (1989) Conditions
       3           ID   Original by CH2M Hill 1991
       4           ID   Modified by Placer County Flood Control District 1993
```

**Figure 4: Cross Canal Watershed Model, Original by CH2M Hill (1991), Modified by Placer County Flood Control District (1992), CCFU.H10 HEC-1 Data File**

## B. CALCULATION RESULTS AND COMPARISON WITH PREVIOUS STUDY

In 2008 Carlton was contracted with Placer County to evaluate and design two bridges across Coon Creek east of the HFRP. The flow rates were derived from the *Cross Canal Watershed Model* HEC-1 program which modeled the final buildout conditions of the upstream watershed to the two bridge sites. Bridge 4 and Bridge 5 are located between HEC 1 Station CO4@D+ and CO4@D+ C05. The 100-year peak flows at the HEC 1 Stations are outlined below in Table 1.

**Table 1: 100-yr Peak Flow Rates Per the Cross Canal Watershed Model**

| HEC 1 Station | 100-yr Peak Flow (cfs) | Drainage Area (Square Miles) |
|---|---|---|
| C04@D+ | 5,027 | 24.9 |
| C04@D+ C05 | 6,587 | 29.7 |

Based on the flows provided by the District, Carlton determined the preliminary 100-yr peak flood elevations at the two bridge sites.

The District provided Carlton with the original HEC-1 file used to create the 100-yr peak flows shown above in Table 1. Per the Placer County Stormwater Management Manual, Page V-B-2, a program entitled "PDP" is used to determine the precipitation data for a storm event based on frequency and average watershed elevation. The District also provided Carlton a copy of the "PDP" program.

Carlton reviewed the original HEC-1 file and noticed that all the subshed elevations were set to a zero foot elevation. It should be noted that for the western Sierra Nevada foothills the intensity and depth of precipitation increases with elevation. It would be expected that the precipitation depths at zero foot elevation are less than precipitation depths at higher elevations. The issue that Carlton discovered is that the 100-yr peak flow rates shown in Table 1 above are based on zero foot elevations for all subsheds within the model. These flow rates should be significantly less when compared to a model where a higher elevation for the subsheds was selected.

Carlton discussed this issue with the District staff. The District staff was not sure why the zero foot elevation was used in the original model. They recommended either continuing to use zero elevation, in order to be consistent with the original model, or adjust the elevation to match the average elevation in the watershed, in which case District staff recommended using 1500 feet, because the Coon Creek watershed extends up to near Applegate.

Using the PDP program at an elevation of zero feet Carlton re-ran the HEC-1 program. Carlton's HEC-1 output varied slightly when compared to the County's original HEC-1 output, see Table 2 below for the results (see attached ccfuel0.dat for Carlton's HEC-1 output file with an elevation of zero feet selected).

**Table 2: Difference in 100-yr Peak Flow Rates at 0' Elevation between District and Carlton HEC-1 Runs**

| HEC 1 Station | District Provided 100-yr Peak Flow (cfs) | Carlton Determined 100-yr Peak Flow (cfs) | Difference in % |
|---|---|---|---|
| C04@D+ | 5,027 | 5,132 | 2.1 |
| C04@D+ C05 | 6,587 | 6,692 | 1.6 |

These differences were reviewed and discussed with District staff. They did not have a problem with the minor (less than 2%) differences between the output files, and approved the use of the Carlton HEC-1 program file.

Since Carlton demonstrated that the "PDP" program was utilized successfully, Table 3 shows the differences between the original (zero foot) HEC-1 100-yr peak flow rates and the Carlton derived (1500 feet) peak flow rates.

**Table 3: Difference in 100-yr Peak Flow Rates at 0' and 1500' Elevation between District and Carlton**

| HEC 1 Station | District Provided 100-yr Peak Flow at 0 ft Elevation (cfs) | Carlton 100-yr Peak Flow at 1500 ft Elevation (cfs) | Difference in % |
|---|---|---|---|
| C04@D+ | 5,027 | 7,801 | 155 |
| C04@D+ C05 | 6,587 | 9,933 | 151 |

Shed CO5 in the HEC 1 study is 4.82 square miles and contributes 2,132 cfs during the 100-yr Peak Flow using 1500 ft elevation as discussed above. Bridges 4 and 5 are located within Shed CO5. Bridge 4's drainage shed is approximately 33% of Shed CO5's total, and Bridge 5's drainage shed is approximately 24% of Shed CO5's total. Table 4 below shows the approximate flow at each bridge location that will be used in the 100-yr floodplain elevation study.

**Table 4: 100-yr Flow at Bridges 4 and 5**

| Site Location | Carlton 100-yr Peak Flow at 1500 ft Elevation (cfs) |
|---|---|
| Bridge #4 | 8,500 |
| Bridge #5 | 8,300 |

## C. CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The original *Cross Canal Watershed Model* prepared by CH2MH and later updated by Placer County Flood Control District assigned a zero foot elevation to the watersheds in the HEC-1 model. The reason for this oversight was not readily apparent to the District or Carlton. Assuming a 1500 ft watershed elevation, the peak flow rates at the two bridge locations increase between 151% at Bridge 5 to 155% at Bridge 4.

The drainage project improvements meet the minimum design standards of the Placer County Stormwater Management Manual.

### Recommendations

In light of these findings and in coordination with District staff, Carlton recommends using the 1500 ft precipitation results to determine peak flood water design surface elevations. It is our recommendation that the flow rates shown in Table 4 along with the USACE Hydrologic Engineering Center River Analysis System (HEC-RAS) program be used to determine the water surface elevations and velocity of the stream profiles at the two bridges.

In order to accommodate future condition peak flows and existing topographic conditions it is recommended that the proposed improvements be graded per the attached improvement plans.

## V. HYDRAULICS

### A. PREVIOUS STUDIES

It is our understanding that a hydraulic study along this section of Coon Creek at the location of the two bridges has not been performed.

### B. HYDRAULIC ANALYSIS

Coon Creek is a typical Sierra Nevada waterway, draining from east to west, and is shown on the USGS quad map (Gold Hill, Ca) as a solid blue line for most of its length throughout the watershed basin. There were many near vertical waterfall sections and alternating bank geometry and cover.

The intent of this report is to delineate the existing and proposed floodplains along Coon Creek at each of the two bridge crossings. The result of the detailed analysis will be an accurate delineation of the existing and proposed floodplain boundaries due to the construction of the bridges.

### C. SIMULATION PROGRAM

A detailed analysis utilizing the USACE HEC-RAS program (version 4.0) with variable input derived from field surveys, aerial mapping, USGS Topography of the channel, and USACE guidance materials would be employed.

### D. INPUT VARIABLES

**Steady State Flows and Boundary Conditions:**
Coon Creek was analyzed based on the results found in the *Cross Canal Watershed Model* updated by Carlton Engineering as discussed in Section IV and identified in Table 4. The steady state flows derived from HEC-1 for the 100-year peak storm events served as input flows into the model.

Table 5 shows the upstream and downstream boundary condition assumed for each bridge location.

**Table 5: HEC-RAS Boundary Conditions**

| Bridge Location | Boundary Condition Location | |
|---|---|---|
| | Upstream | Downstream |
| Bridge 4 | Critical Depth | Normal Depth S = 0.0300 |
| Bridge 5 | Critical Depth | Normal Depth S = 0.0500 |

**Channel Geometry:**

**Bridges 4 and 5**

The channel cross-sections were input from data gathered during a field survey of the channel and data obtained from TopoDepot. TopoDepot provides a 7.5 minute quad map of area which utilizes USGS digital elevation models that are used to generate 3D contour lines. The Carlton survey and TopoDepot data was joined together to obtain a surface model. A digital terrain model (DTM) was created from the topographic sources utilizing CADD based software. The cross-section data was extracted from the DTM at stations that would best represent the channel conditions to be studied.

The following photos (Photos 1 thru 4) show the existing conditions at Bridges 4 and 5 on Coon Creek east of HFRP.

**Photo 1: Bridge 4 – Looking Upstream – 12/22/11 Site Visit**

**Photo 2: Bridge 4 – Looking Downstream – 12/22/11 Site Visit**

**Photo 3: Bridge 5 – Looking Downstream – 12/22/11 Site Visit**

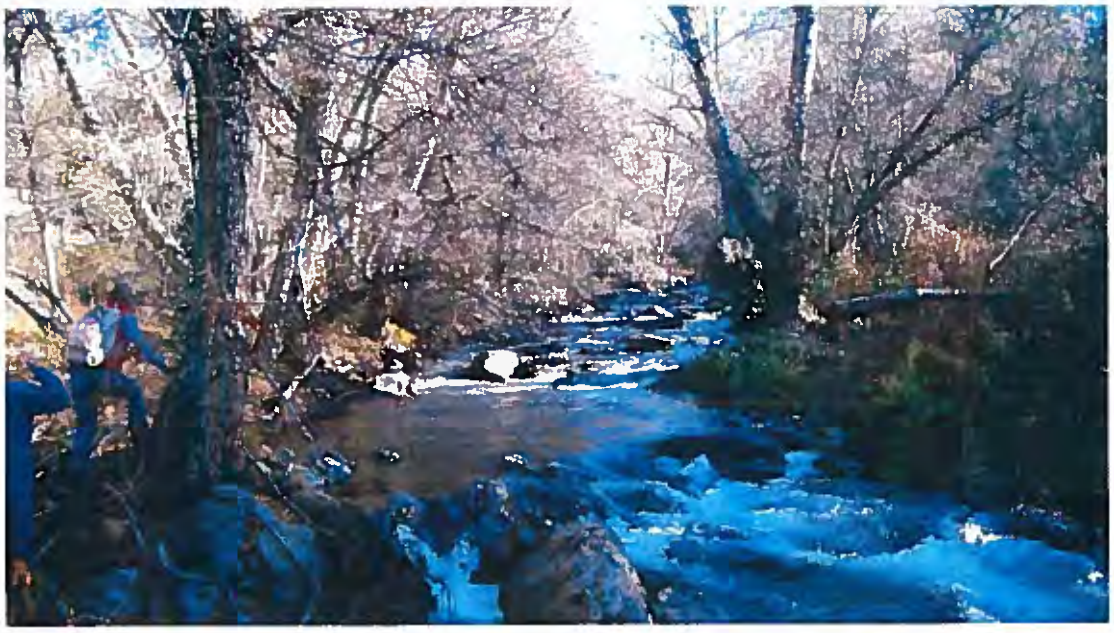


**Photo 4: Bridge 5 – Looking Upstream – 12/22/11 Site Visit**

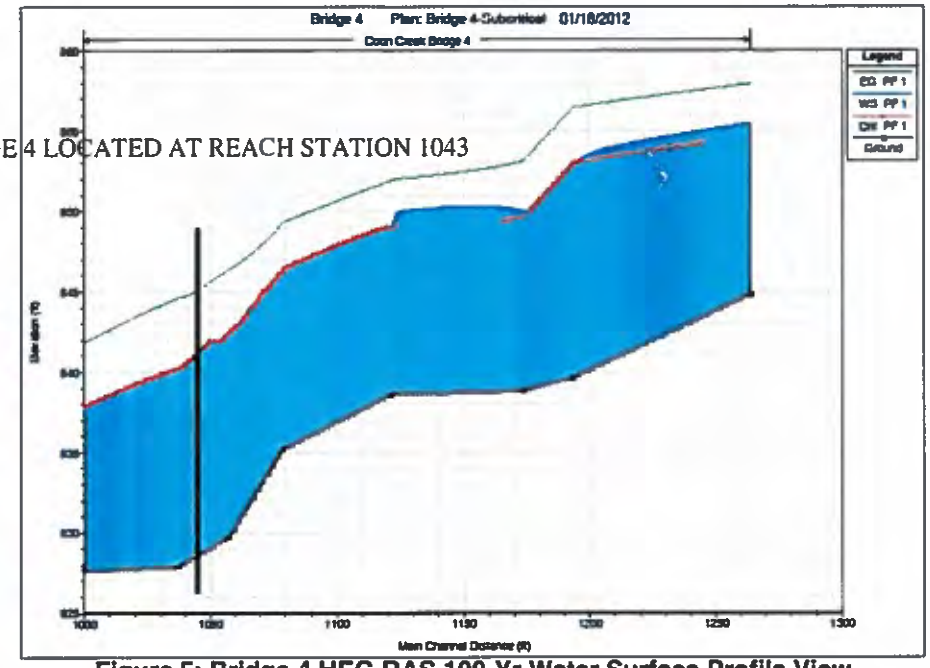
**Channel Roughness:**

**Bridges 4 and 5**
The Coon Creek channel at Bridges 4 and 5 are very irregular and contains many boulders, overgrown bank areas, and vertical drops, with an estimated water surface top width at flood stage approximately 100 feet. The Manning's 'n' roughness for open channel flow and overbank areas is estimated to be **0.050** and was taken from Table 11.2 (D-3)(b) from *Computer-Assisted Floodplain Hydrology & Hydraulics* (Hoggan, 1997). See Appendix D.

## A. RESULTANT CHANGES TO WATER DEPTH AND VELOCITIES DUE TO BRIDGE CONSTRUCTION

A comprehensive 100-year flood event water surface profile was not calculated for the entire reach of Coon Creek through HFRP. The water surface profile was analyzed at each bridge crossing.

**Bridge 4**
Bridge 4 is located at an elevation above the minimum 3 ft freeboard as measured from the 100-year peak water surface. The resultant 100-year peak water surface profile is shown graphically in Figure 5. Bridge 4 is located at channel Station 1043.




BRIDGE 4 LOCATED AT REACH STATION 1043

**Figure 5: Bridge 4 HEC-RAS 100-Yr Water Surface Profile View**

Upstream of Bridge 4 the creek channel has spread out into a wider floodplain. During flood events it is anticipated that the flow in this section is in a subcritical flow regime. At Bridge 4 the creek narrows, where the water has eroded the channel down to bedrock. Below Bridge 4 the creek widens out again. The flows at Bridge 4 are anticipated to be flowing in a supercritical flow regime. In order to calculate the maximum possible water surface elevations the HEC-RAS model was run in subcritical regime mode. In order to calculate the maximum possible velocities the HEC-RAS model was run in mixed regime mode. Table 6 shows a tabulated summary for the 100-year water surface elevations through the channel reach.

**Table 6: Bridge 4 HEC-RAS 100-Yr Water Surface and Velocity –Mixed Flow Regime Tabulated Summary**

| River Sections | River Sta | Min Ch El | W.S. Elev* | Crit W.S.** | E.G. Elev** | E.G. Slope** | Vel Chnl** | Flow Area** | Top Width** | Froude # Chl** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| A | 1263 | 844.8 | 855.5 | 854.7 | 857.9 | 0.0151 | 12.5 | 679.2 | 97.8 | 0.84 |
| B | 1193 | 839.6 | 853.1 | 853.1 | 856.5 | 0.0220 | 14.8 | 574.8 | 85.1 | 1 |
| C | 1173 | 838.8 | 850.0 | 849.7 | 855.0 | 0.0685 | 22.4 | 380.2 | 74.0 | 1.74 |
| D | 1121 | 838.6 | 849.1 | 849.1 | 851.9 | 0.0253 | 13.5 | 631.7 | 113.0 | 1 |
| E | 1079 | 835.2 | 846.5 | 846.5 | 849.8 | 0.0500 | 17.1 | 497.8 | 108.1 | 1.4 |
| F | 1057 | 829.7 | 842.5 | 842.5 | 848.1 | 0.0665 | 23.1 | 368.8 | 54.2 | 1.56 |
| G | 1037 | 827.9 | 840.3 | 840.3 | 846.6 | 0.0708 | 24.2 | 351.3 | 53.8 | 1.67 |
| H | 1000 | 827.7 | 837.9 | 837.9 | 843.6 | 0.0726 | 23.0 | 369.1 | 60.6 | 1.64 |

* Subcritical Flow Regime
** Mixed Flow Regime

Figure 6 shows the plan view of the Bridge 4 improvements with respect to the limits of the proposed 100-year peak flood plain, and the HEC-RAS river cross section locations. The support columns are located just outside of the 100-year peak flood plain. For purposes of design, the columns will be designed as if they are located within the floodplain.

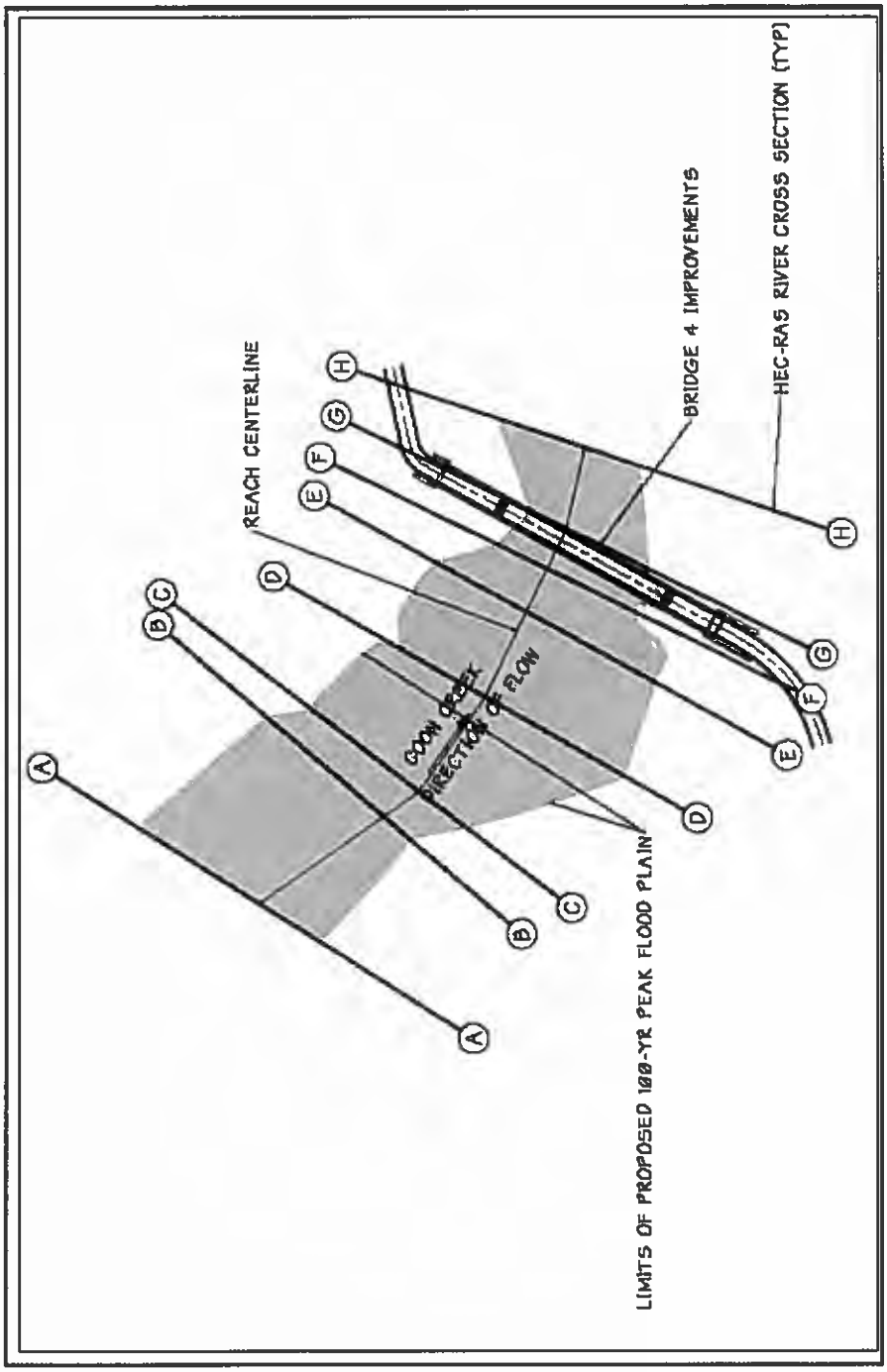



**Figure 6: Bridge 4 HEC-RAS Plan View**

## Bridge 5

The resultant 100-Yr water surface profile is shown graphically in Figure 7. Bridge 5 is located at Station 2209.

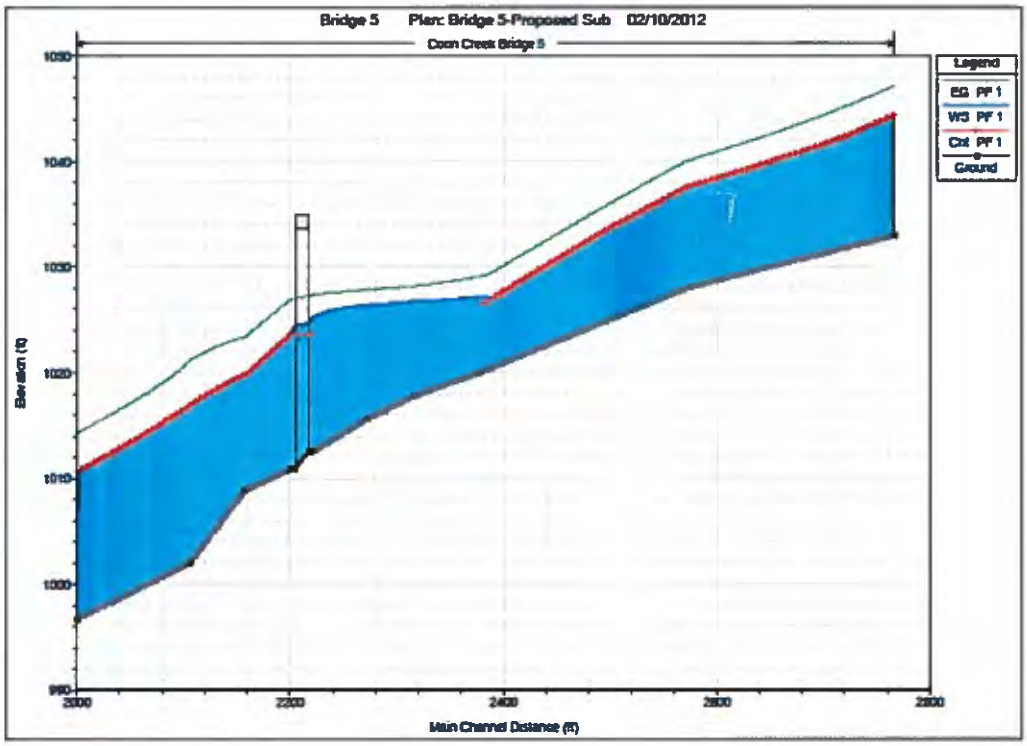



**Figure 7: Bridge 5 HEC-RAS 100-Yr Water Surface Profile View**

The flows at the Bridge 5 HEC-RAS model are anticipated to be flowing in a mixture of supercritical and subcritical flows. In order to calculate the maximum possible water surface elevations the HEC-RAS model was run in subcritical regime mode. In order to calculate the maximum possible velocities the HEC-RAS model was run in mixed regime mode.

A tabulated summary of existing and proposed water surface elevations and velocities are presented in Table 7. There is a negligible increase to the water surface elevation and velocity from the bridge abutment.

**Table 7: Bridge 5 HEC-RAS 100-Yr Water Surface and Velocity –Mixed Flow Regime Tabulated Summary**

| River Sections | River Sta | Existing WS Elev* (ft) | Proposed Bridge WS Elev* (ft) | Diff Between Ex. And Prop. WS Elev (ft) | Existing Velocity** (ft/s) | Proposed Bridge Velocity** (ft/s) | Diff Between Ex. And Prop Velocity (ft/s) |
|---|---|---|---|---|---|---|---|
| A | 2767 | 1044.5 | 1044.5 | 0 | 13.5 | 13.5 | 0 |
| B | 2570 | 1037.6 | 1037.6 | 0 | 12.9 | 12.9 | 0 |
| C | 2382 | 1027.3 | 1027.3 | 0 | 16.9 | 16.9 | 0 |
| D | 2317 | 1026.8 | 1026.8 | 0 | 9.6 | 9.6 | 0 |
| E | 2272 | 1026.4 | 1026.4 | 0 | 9.5 | 9.5 | 0 |
| F | 2220 | 1025.2 | 1025.2 | 0 | 11.8 | 11.7 | 0.1 |
| | 2209 BRIDGE | 1025.3 | | | 11.0 | | |
| G | 2200 | 1023.7 | 1023.7 | 0 | 14.4 | 14.4 | 0 |
| H | 2158 | 1020.0 | 1020.0 | 0 | 21.3 | 21.3 | 0 |
| I | 2106 | 1017.0 | 1017.0 | 0 | 21.3 | 21.3 | 0 |
| J | 2000 | 1010.7 | 1010.7 | 0 | 21.7 | 21.7 | 0 |

* Subcritical Flow Regime
** Mixed Flow Regime

Figure 8 shows the plan view of the Bridge 2 improvements with respect to the limits of the proposed 100-year peak flood plain, and the HEC-RAS river cross section locations.

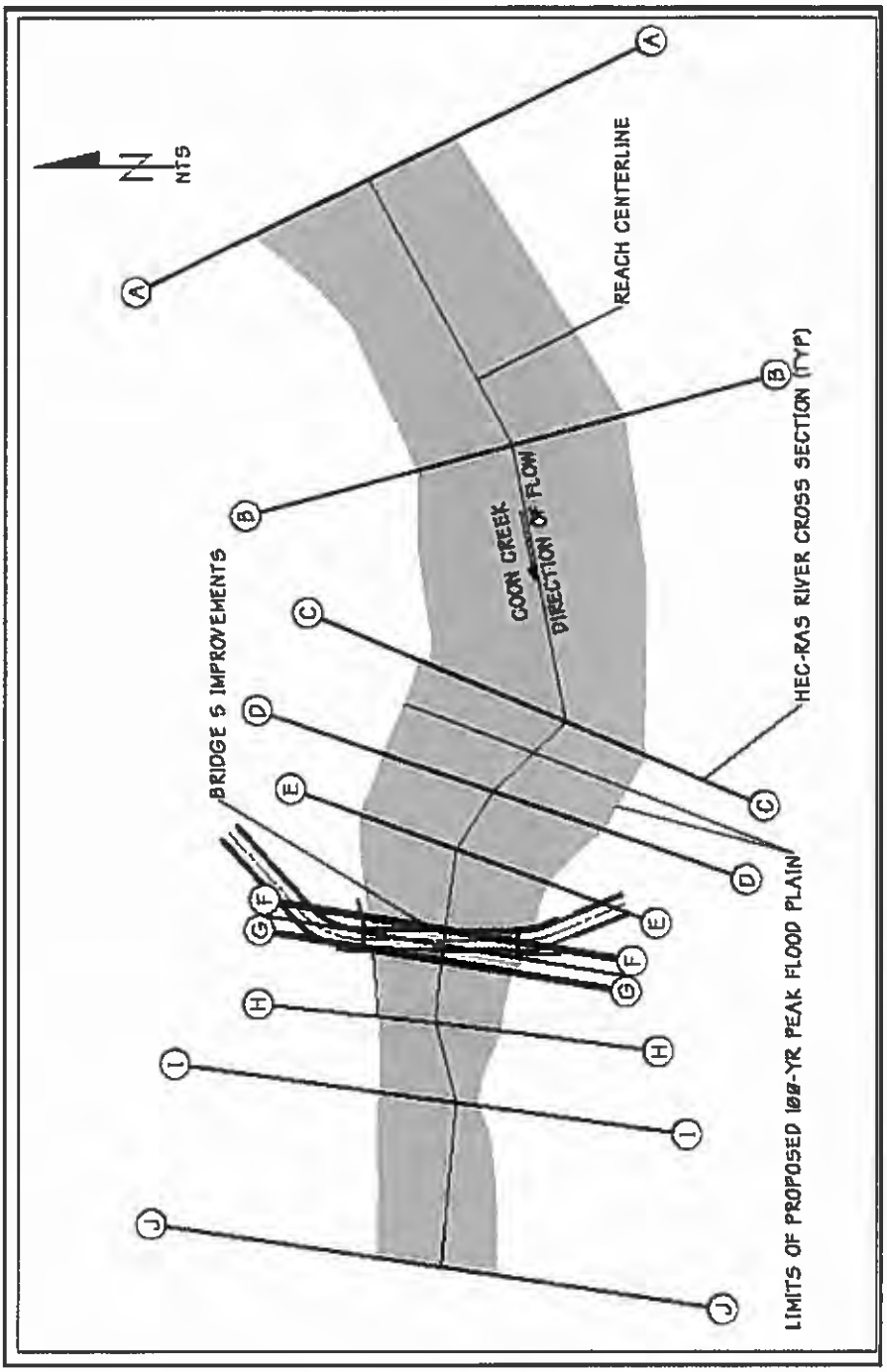



**Figure 8: Bridge 5 HEC-RAS Plan View**

## B. SCOUR ANALYSIS

Scour analysis was not analyzed at Bridge 4 because the support columns are located outside of the 100-year peak flood plain. However, due to the relative location to the 100-year peak flood plain elevation, the design of the support columns will assume that they are submerged. The Bridge 4 support columns will be founded directly on exposed bed rock and will not experience scour from erodible material.

Scour has been analyzed at Bridge 5.

The total depth of scour includes three additive components; long term aggradation or degradation, contraction scour, and local scour. The values for the long term aggradation or degradation can only be qualified by evaluating historic records of the reach for changes in channel geometry. At the location of the bridges Coon Creek has eroded down to bedrock. Long term aggradation or degradation is not anticipated.

The other two components were estimated using HEC-RAS and are only reported for information purposes since the concrete abutments will be founded directly on bedrock, therefore scour will not reach the calculated depths.

Scour occurs at abutments when the abutment and embankment obstruct the flow. The flow obstructed by the abutment forms a horizontal vortex starting at the upstream end of the abutment and running along the toe of the abutment, resulting in a vertical wake vortex at the downstream end of the abutment.

Total scour is the sum of calculated local scour (abutment scour), contraction scour, and long-term bed degradation. The total calculated scour depth for the bridges is shown in Appendix E. These estimated values assume that the scoured material is made up of erodible sediment. The value for $D_{50}$ (0.4 mm) is based on the Geotechnical Engineering Study prepared by Carlton Engineering, Inc. (2010) sieve analysis test report for a bulk sample taken near Coon Creek.

The calculated scour depths exceed the expected depth of erodible overburden. This indicates that during the design event, the design flow will scour the soil to the elevation of bedrock.

## C. CONCLUSIONS AND RECOMMENDATIONS

Bridge 4 is located outside and above the limits of the 100-yr peak flood plain and will not affect the limits of the floodplain.

Bridge 5's southern abutment is located within the 100-year peak flood plain and will have a negligible effect on the limits of the flood plain.

The limits of the impact of the bridge construction are as follows:

**Bridge 4**
Bridge 4 improvements will be constructed outside of the floodplain of the 100-yr peak storm event. Therefore changes to the water surface profile are nonexistent between the pre- and post-construction conditions. Additional design constraints due to scour are not anticipated at Bridge 4.

**Bridge 5**
The calculated scour depths exceed the expected depth of erodible overburden. This indicates that during the design event, the design flow will scour the soil to the elevation of bedrock. It is recommended that the foundation of the bridges be embedded into bedrock to a sufficient depth in order to ensure structural stability.

# VI. APPENDIX A: BRIDGE SCHEMATIC DESIGN DRAWINGS

SEE CD IN APPENDIX D FOR PDF FILES

# BRIDGE SCHEMATIC DESIGN PLANS

## Hidden Falls Regional Park
## Placer County, California

CARLTON Engineering, Inc.
3853 Fleetwood Road, Steeple Springs, CA 95682
Phone: 530.573.5814 Fax: 530.877.6668

PRELIMINARY

## Abbreviations

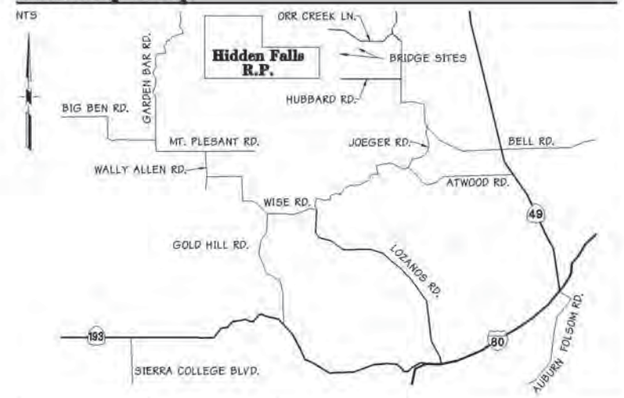
| | |
|---|---|
| # | NUMBER |
| AB | AGGREGATE BASE |
| AC | ASPHALTIC CONCRETE |
| APN | ASSESSORS PARCEL NUMBER |
| ARV | AIR RELEASE VALVE |
| BC | BEGIN CURVE |
| BFP | BACKFLOW PREVENTER |
| BO | BLOW OFF |
| BOW | BOTTOM OF WALL |
| BVC | BEGIN VERTICAL CURVE |
| BW | BACK OF WALK |
| C/G | CURB AND GUTTER |
| CH | CHORD |
| CHL | CHORD LENGTH |
| CL | CENTERLINE |
| CMP | CORRUGATED METAL PIPE |
| CMU | CONCRETE MASONRY UNIT |
| CO | CLEAN OUT |
| CONC | CONCRETE |
| CR | CURB RETURN |
| DCV | DETECTOR CHECK VALVE |
| DI | DRAIN INLET |
| DWY | DRIVEWAY |
| E | ELECTRICAL |
| EC | END CURVE |
| ELV | ELEVATION |
| EP | EDGE OF PAVEMENT |
| EVC | END VERTICAL CURVE |
| (E) | EXISTING |
| FD | FIRE DEPARTMENT |
| FDC | FIRE DEPARTMENT CONNECTION |
| FF | FINISHED FLOOR |
| FG | FINISHED GRADE |
| FH | FIRE HYDRANT |
| FL | FLOWLINE |
| FP | FINISHED PAVEMENT |
| FS | FINISHED SURFACE |
| G | GAS |
| GB | GRADE BREAK |
| GT | GRATE |
| GV | GATE VALVE |
| INTX | INTERSECTION |
| INV | INVERT |
| JP | JOINT POLE |
| JT | JOIN TRENCH |
| LF | LINEAR FEET |
| LT | LEFT |
| MAX | MAXIMUM |
| MH | MANHOLE |
| MIN | MINIMUM |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OH | OVERHEAD |
| OMP | OPEN METAL PIPE |
| PCC | PORTLAND CEMENT CONCRETE |
| PIV | POST INDICATOR VALVE |
| PL | PROPERTY LINE |
| POC | POINT OF CONNECTION |
| PP | POWER POLE |
| PRC | POINT OF REVERSE CURVE |
| PRVC | POINT OF REVERSE VERTICAL CURVE |
| PUE | PUBLIC UTILITIES EASEMENT |
| PVC | POLYVINYL CHLORIDE |
| PVI | POINT VERTICAL INTERSECTION |
| R | RADIUS |
| ROW | RIGHT OF WAY |
| RC | REVERSE CURVE |
| RT | RIGHT |
| RWS | RECYCLED WATER SERVICE |
| S=# | SLOPE PERCENTAGE |
| SCH | SCHEDULE |
| SD | STORM DRAIN |
| SD# | STANDARD DRAWING NUMBER |
| SDMH | STORM DRAIN MANHOLE |
| SP# | STANDARD PLAN NUMBER |
| SS | SANITARY SEWER |
| SSCO | SANITARY SEWER CLEAN OUT |
| SSMH | SANITARY SEWER MANHOLE |
| STA | STATION |
| SUBD. | SUBDIVISION |
| T | TELEPHONE |
| TBW | TOP BACK OF WALK |
| TC | TOP OF CURB |
| TOW | TOP OF WALL |
| TW | TOP OF WALK |
| (TYP) | TYPICAL |
| V | VAULT |
| VAR | VARIES |
| VC | VERTICAL CURVE |
| W | WATER |
| WM | WATER METER |
| WS | WATER SERVICE |
| WV | WATER VALVE |

## Trees

- OAK
- SPRUCE
- PINE
- CEDAR
- AS LABELED
- TO BE REMOVED

## Vicinity Map

NTS

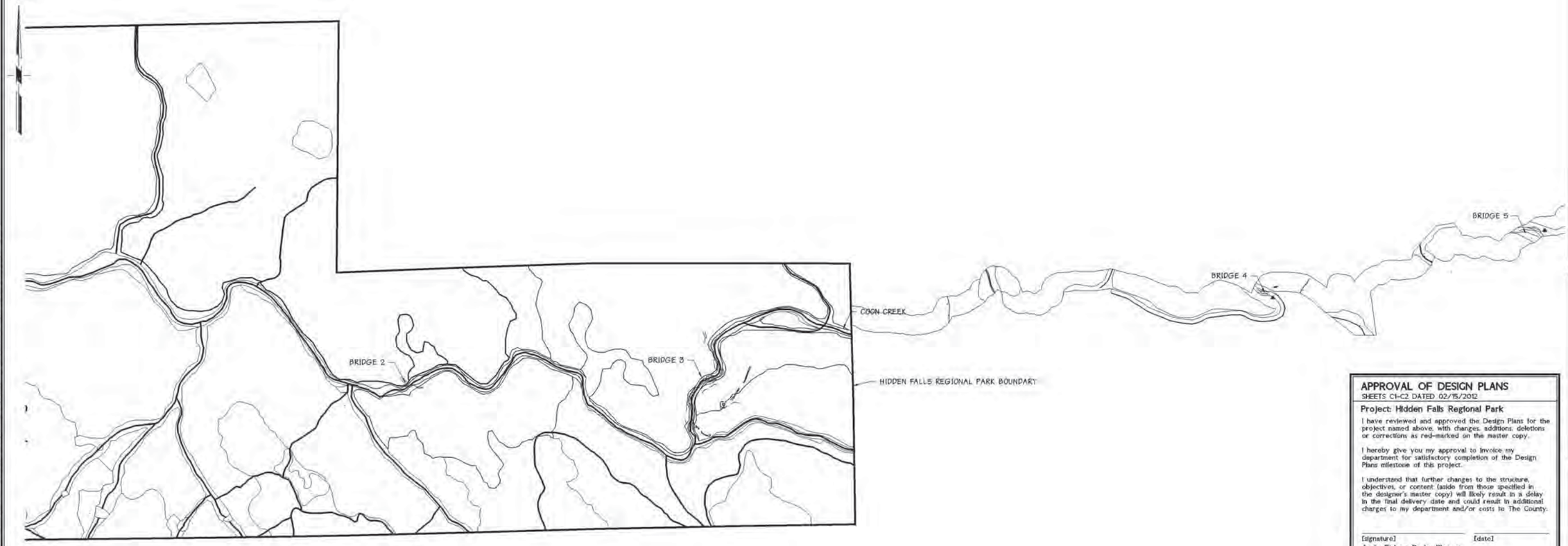



## Sheet Index


CS COVER SHEET
C1 BRIDGE 4 PLAN AND PROFILE
C2 BRIDGE 5 PLAN AND PROFILE


## Project Layout

1"=500'




### APPROVAL OF DESIGN PLANS

SHEETS C1-C2 DATED 02/15/2012

**Project: Hidden Falls Regional Park**

I have reviewed and approved the Design Plans for the project named above, with changes, additions, deletions or corrections as red-marked on the master copy.

I hereby give you my approval to invoice my department for satisfactory completion of the Design Plans milestone of this project.

I understand that further changes to the structure, objectives, or content (aside from those specified in the designer's master copy) will likely result in a delay in the final delivery date and could result in additional charges to my department and/or costs to The County.

[signature] [date]
Andy Fisher, Parks Planner
Placer County Parks Division

Revisions

| SYM | DESCRIPTION | DATE | BY |
|---|---|---|---|
| | | | |

HIDDEN FALLS REGIONAL PARK

COVER SHEET

**Project Location:**
Placer County
Auburn, California 95603

**Ownership Information:**
Placer County Procurement
11476 "C" Avenue
Auburn, California 95603

| DESIGN | DRAWN | RELEASE DATE |
|---|---|---|
| MDH | MDH | 02/15/2012 |
| HZ. SCALE | VT. SCALE | PROJECT NUMBER |
| AS NOTED | | 6333-01-08 |

CHECKED BY & DATE

SHEET

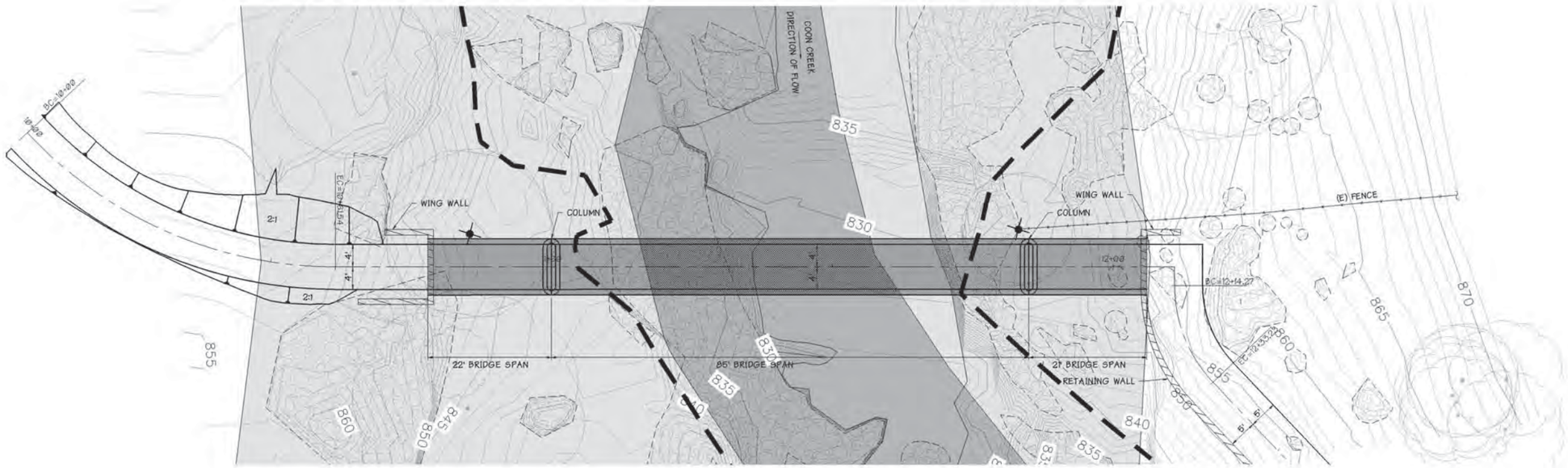
CS

## Legend

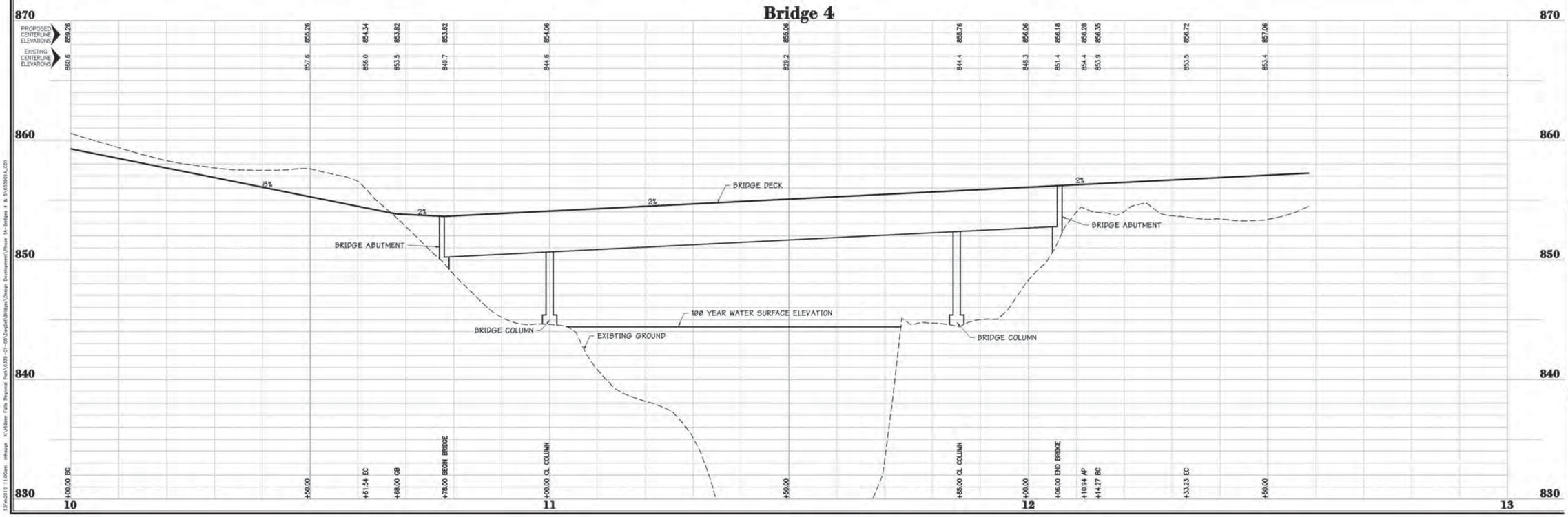
- 100 YEAR PEAK STORM
- VALLEY FOOTHILL RIPARIAN ZONE*
- PERENNIAL STREAM CHANNEL - OHWM*
- PROPOSED BRIDGE

* LIMITS PROVIDED BY AECOM, JANUARY 2012

1 inch = 10 ft.




## Bridge 4




CARLTON Engineering Inc.

REGISTERED PROFESSIONAL ENGINEER MICHAEL D. DEGE No. 61281 Exp. 6/30/2013 CIVIL STATE OF CALIFORNIA

SIGNING DATE:

PRELIMINARY

**Revisions**

| SYM | DESCRIPTION | DATE | BY |
|---|---|---|---|
| | | | |

**HIDDEN FALLS REGIONAL PARK**

**BRIDGE 4**
**PLAN AND PROFILE**

**Project Location:**
Placer County
Auburn, California 95603

**Ownership Information:**
Placer County Procurement
11476 "C" Avenue
Auburn, California 95603

| DESIGN | DRAWN | RELEASE DATE |
|---|---|---|
| MDH | MDH | 02/15/2012 |
| HZ SCALE 1"=10' | VT. SCALE 1"=4' | PROJECT NUMBER 6339-01-00 |

CHECKED BY & DATE

SHEET

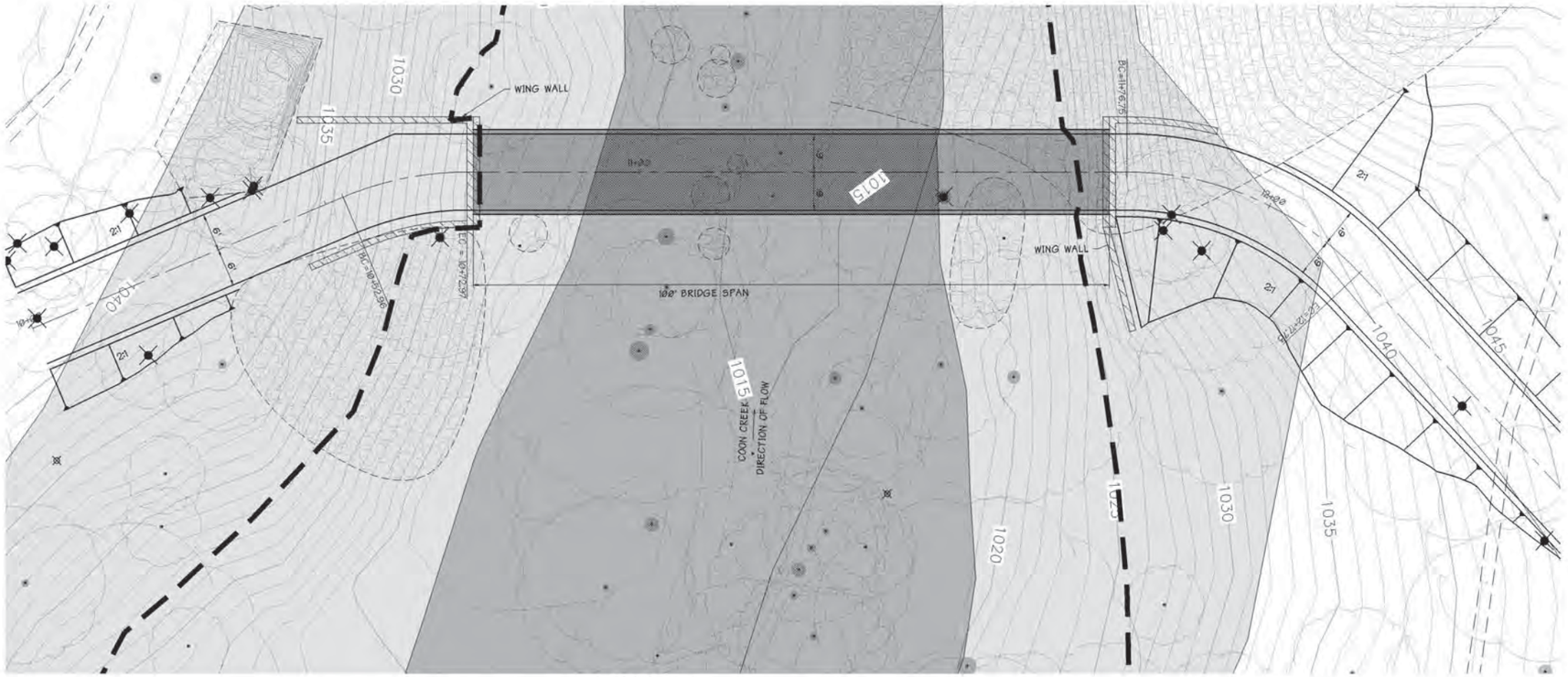
C1

## Legend

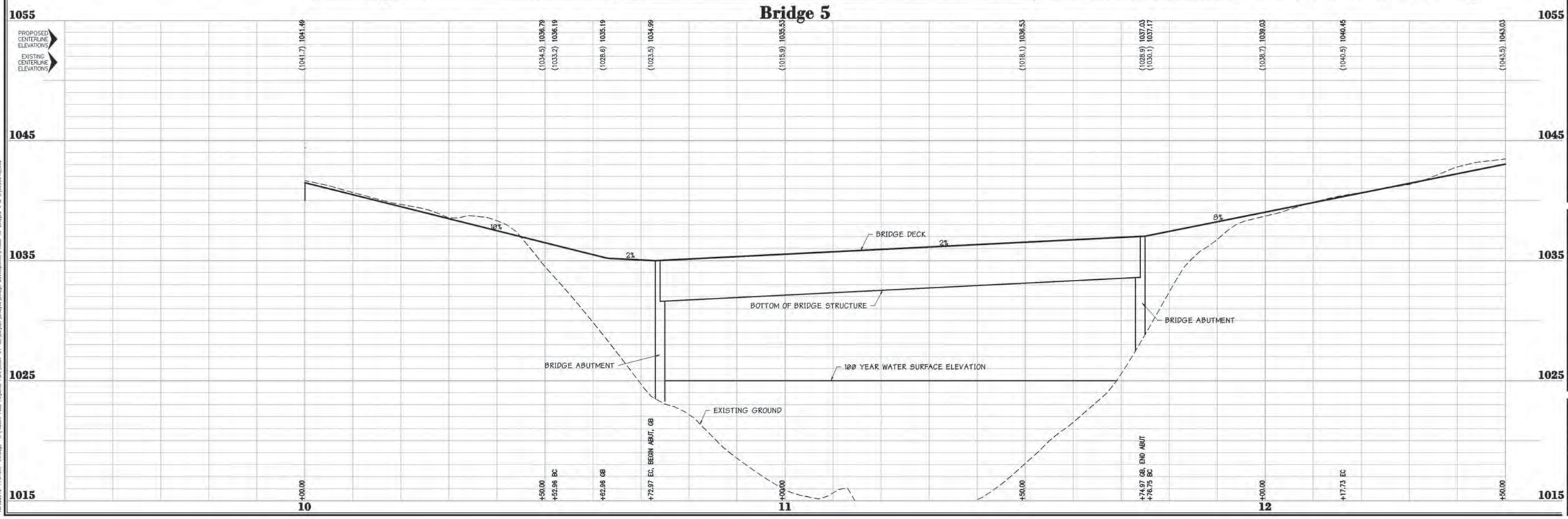
- 100 YEAR PEAK STORM
- VALLEY FOOTHILL RIPARIAN ZONE*
- PERENNIAL STREAM CHANNEL - OHWM*
- PROPOSED BRIDGE

* LIMITS PROVIDED BY AECOM, JANUARY 2012

1 inch = 10 ft.




## Bridge 5




CARLTON Engineering Inc.
3883 Ponderosa Road, Shingle Springs, Ca 95682
Voice 530.677.5015 Fax 530.677.6643

REGISTERED PROFESSIONAL ENGINEER
MICHAEL D. GROSE
No. 61591
Exp. 6/30/2011
CIVIL
STATE OF CALIFORNIA
PRELIMINARY
SIGNING DATE:

**Revisions**

| SYM | DESCRIPTION | DATE | BY |
|---|---|---|---|
| | | | |

# HIDDEN FALLS REGIONAL PARK

# BRIDGE 5 PLAN AND PROFILE

**Project Location:**
Placer County
Auburn, California 95603

**Ownership Information:**
Placer County Procurement
11476 "C" Avenue
Auburn, California 95603

| DESIGN | DRAWN | RELEASE DATE |
|---|---|---|
| MDH | MDH | 02/15/2012 |
| H: SCALE 1" | V: SCALE 1" | PROJECT NUMBER |
| =10' | =4' | 6339-01-08 |

CHECKED BY & DATE

SHEET

C2

# VII. APPENDIX B: HEC-1 SUPPORTING DOCUMENTS

SEE CD IN APPENDIX D FOR PDF FILES

# VIII. APPENDIX C: HEC-RAS SUPPORTING DOCUMENTS

# Bridge 4 Water Surface Summary verses Flow Regime

| | | Existing | | |
|---|---|---|---|---|
| | | W.S. Elev | | |
| River Sta | Q Total | (ft) | | |
| | (cfs) | Subcritical | Supercritical | Mixed |
| 1263.63 | 8500 | 855.5 | 854.65 | 855.5 |
| 1193.34 | 8500 | 853.05 | 853 | 853.05 |
| 1173.46 | 8500 | 849.98 | 847.25 | 847.25 |
| 1121.61 | 8500 | 849.09 | 848.39 | 849.09 |
| 1079.04 | 8500 | 846.46 | 845.15 | 845.29 |
| 1057.52 | 8500 | 842.53 | 839.8 | 839.87 |
| 1037.52 | 8500 | 840.27 | 837.5 | 837.54 |
| 1000 | 8500 | 837.88 | 835.38 | 835.39 |

# Bridge 4 Velocity Summary verses Flow Regime

| | | Existing | | |
|---|---|---|---|---|
| | | W.S. Elev | | |
| River Sta | Q Total | (ft) | | |
| | (cfs) | Subcritical | Supercritical | Mixed |
| 1263.63 | 8500 | 12.51 | 14.24 | 12.51 |
| 1193.34 | 8500 | 14.79 | 14.91 | 14.79 |
| 1173.46 | 8500 | 14.21 | 22.35 | 22.35 |
| 1121.61 | 8500 | 13.46 | 15.32 | 13.46 |
| 1079.04 | 8500 | 13.53 | 17.58 | 17.07 |
| 1057.52 | 8500 | 15.75 | 23.27 | 23.05 |
| 1037.52 | 8500 | 16.74 | 24.35 | 24.2 |
| 1000 | 8500 | 15.93 | 23.07 | 23.03 |

Bridge 4
Subcritical Existing

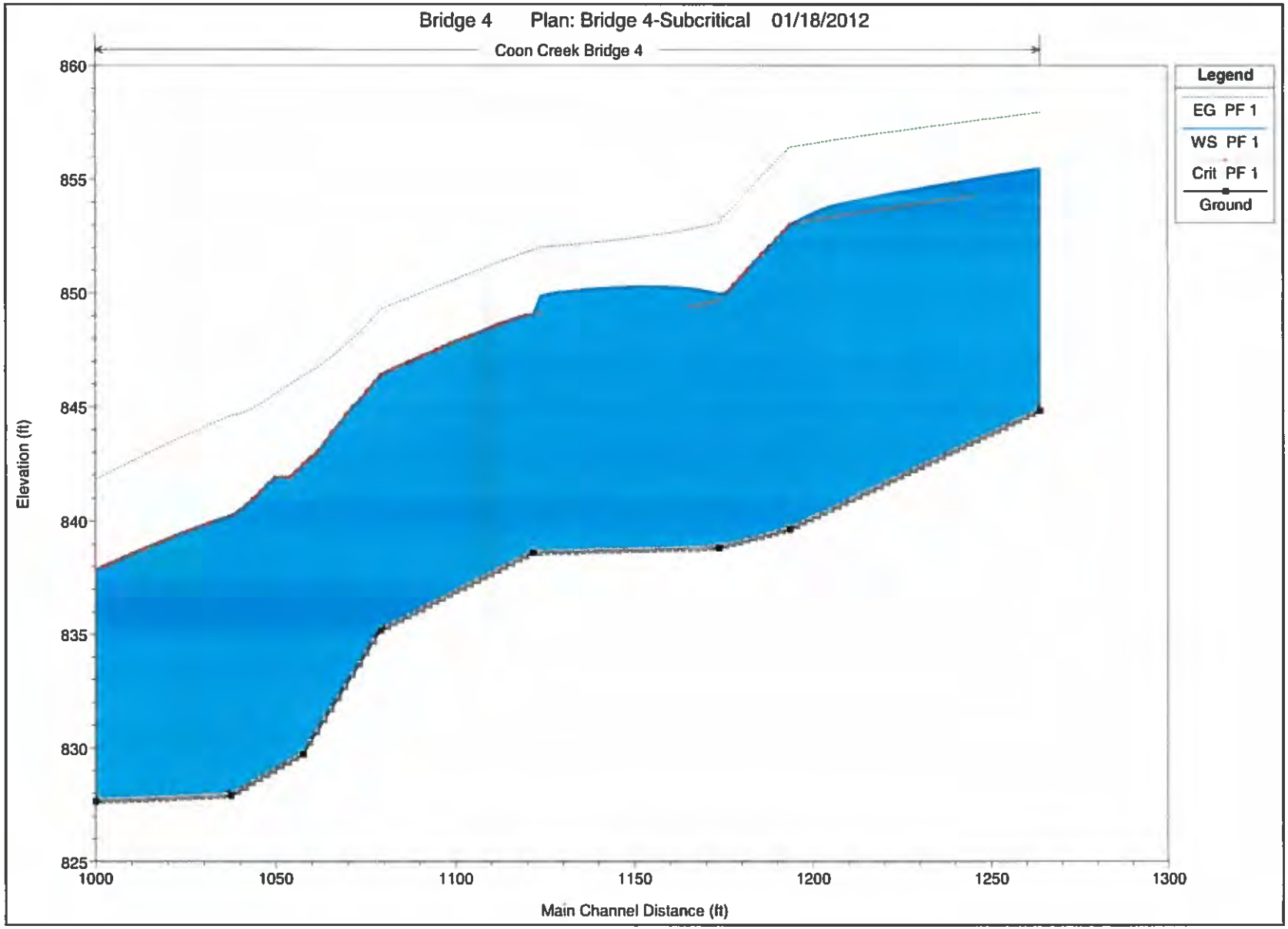
| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 4 | 1263.63 | PF 1 | 8500 | 844.82 | 855.5 | | 857.93 | 0.015107 | 12.51 | 679.2 | 97.77 | 0 84 |
| Bridge 4 | 1193.34 | PF 1 | 8500 | 839.63 | 853.05 | 853.05 | 856.45 | 0.022011 | 14.79 | 574.75 | 85.08 | 1 |
| Bridge 4 | 1173.46 | PF 1 | 8500 | 838.82 | 849.98 | 849.66 | 853.12 | 0.018638 | 14.21 | 598.07 | 85.61 | 0.95 |
| Bridge 4 | 1121.61 | PF 1 | 8500 | 838.6 | 849.09 | 849.09 | 851.9 | 0.025331 | 13.46 | 631.68 | 113.03 | 1 |
| Bridge 4 | 1079.04 | PF 1 | 8500 | 835.17 | 846.46 | 846.46 | 849.3 | 0.024555 | 13.53 | 628.26 | 112.97 | 1.01 |
| Bridge 4 | 1057.52 | PF 1 | 8500 | 829.72 | 842.53 | 842.53 | 846.38 | 0.02559 | 15.75 | 539.65 | 70.64 | 1 |
| Bridge 4 | 1037.52 | PF 1 | 8500 | 827.9 | 840.27 | 840.27 | 844.62 | 0.024508 | 16.74 | 507.63 | 58.99 | 1.01 |
| Bridge 4 | 1000 | PF 1 | 8500 | 827.65 | 837.88 | 837.88 | 841.82 | 0.025714 | 15.93 | 533.73 | 68.29 | 1 |

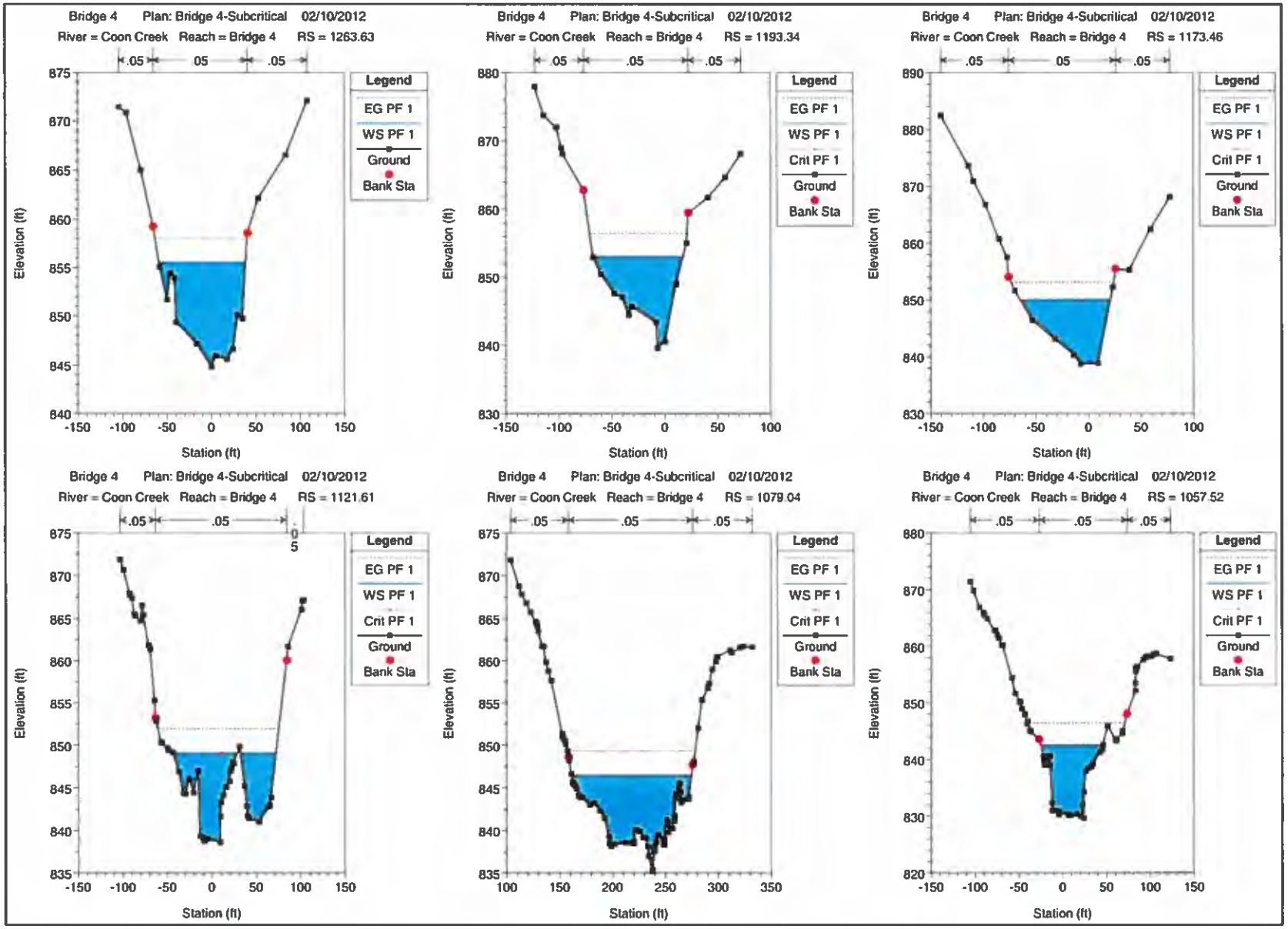
Bridge 4
Supercritical Existing

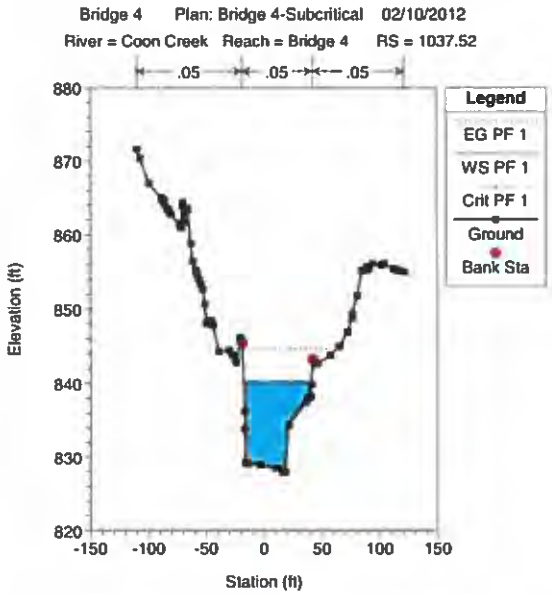
| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 4 | 1263.63 | PF 1 | 8500 | 844.82 | 854.65 | 854.65 | 857.8 | 0.022375 | 14.24 | 596.73 | 95.37 | 1 |
| Bridge 4 | 1193.34 | PF 1 | 8500 | 839.63 | 853 | 853.02 | 856.45 | 0.022548 | 14.91 | 570.18 | 84.95 | 1.01 |
| Bridge 4 | 1173.46 | PF 1 | 8500 | 838.82 | 847.25 | 849.68 | 855.01 | 0.068479 | 22.35 | 380.38 | 73.98 | 1.74 |
| Bridge 4 | 1121.61 | PF 1 | 8500 | 838.6 | 848.39 | 849.09 | 852.04 | 0.036464 | 15.32 | 554.8 | 107.19 | 1.19 |
| Bridge 4 | 1079.04 | PF 1 | 8500 | 835.17 | 845.15 | 846.45 | 849.95 | 0.0543 | 17.58 | 483.57 | 106.85 | 1.46 |
| Bridge 4 | 1057.52 | PF 1 | 8500 | 829.72 | 839.8 | 842.53 | 848.21 | 0.06795 | 23.27 | 365.29 | 53.72 | 1.57 |
| Bridge 4 | 1037.52 | PF 1 | 8500 | 827.9 | 837.5 | 840.29 | 846.71 | 0.072068 | 24.35 | 349.13 | 53.64 | 1.68 |
| Bridge 4 | 1000 | PF 1 | 8500 | 827.65 | 835.38 | 837.86 | 843.65 | 0.073122 | 23.07 | 368.38 | 60.57 | 1.65 |

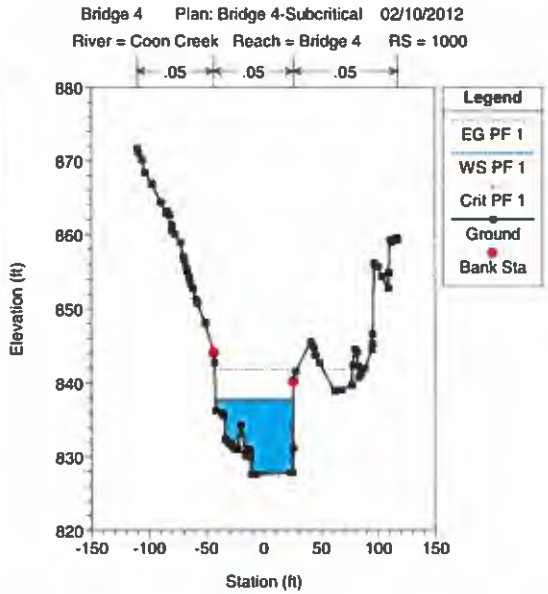
Bridge 4
Mixed Existing

| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 4 | 1263.63 | PF 1 | 8500 | 844.82 | 855.5 | 854.66 | 857.93 | 0.015107 | 12.51 | 679.2 | 97.77 | 0.84 |
| Bridge 4 | 1193.34 | PF 1 | 8500 | 839.63 | 853.05 | 853.05 | 856.45 | 0.022011 | 14.79 | 574.75 | 85.08 | 1 |
| Bridge 4 | 1173.46 | PF 1 | 8500 | 838.82 | 847.25 | 849.68 | 855.01 | 0.068551 | 22.35 | 380.24 | 73.97 | 1.74 |
| Bridge 4 | 1121.61 | PF 1 | 8500 | 838.6 | 849.09 | 849.09 | 851.9 | 0.025331 | 13.46 | 631.68 | 113.03 | 1 |
| Bridge 4 | 1079.04 | PF 1 | 8500 | 835.17 | 845.29 | 846.45 | 849.81 | 0.050074 | 17.07 | 497.84 | 108.13 | 1.4 |
| Bridge 4 | 1057.52 | PF 1 | 8500 | 829.72 | 839.87 | 842.53 | 848.12 | 0.066568 | 23.05 | 368.75 | 54.17 | 1.56 |
| Bridge 4 | 1037.52 | PF 1 | 8500 | 827.9 | 837.54 | 840.29 | 846.63 | 0.07082 | 24.2 | 351.29 | 53.76 | 1.67 |
| Bridge 4 | 1000 | PF 1 | 8500 | 827.65 | 835.39 | 837.86 | 843.63 | 0.072683 | 23.03 | 369.1 | 60.58 | 1.64 |


Bridge 4 Plan: Bridge 4-Subcritical 01/18/2012
Coon Creek Bridge 4
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (ft)
860
855
850
845
840
835
830
825
1000
1050
1100
1150
1200
1250
1300
Main Channel Distance (ft)


Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1263.63
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1193.34
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1173.46
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1121.61
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1079.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1057.52
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1037.52
.05
.05
.05
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
880
870
860
850
840
830
820
-150
-100
-50
0
50
100
150
Station (ft)


Bridge 4 Plan: Bridge 4-Subcritical 02/10/2012
River = Coon Creek Reach = Bridge 4 RS = 1000
.05
.05
.05
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
880
870
860
850
840
830
820
-150
-100
-50
0
50
100
150
Station (ft)

## Bridge 5 Water Surface Summary verses Flow Regime

| | | Existing | | | Proposed Bridge | | | Difference Between Existing and Proposed | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 100 Yr Peak | W.S. Elev | | | W.S. Elev | | | W.S. Elev | | |
| River Sta | Q Total | (ft) | | | (ft) | | | (ft) | | |
| | (cfs) | Subcritical | Supercritical | Mixed | Subcritical | Supercritical | Mixed | Subcritical | Supercritical | Mixed |
| 2767.01 | 8300 | 1044.52 | 1044.56 | 1044.5 | 1044.52 | 1044.56 | 1044.52 | 0 | 0 | 0 |
| 2570.32 | 8300 | 1037.6 | 1037.48 | 1037.5 | 1037.6 | 1037.48 | 1037.48 | 0 | 0 | 0 |
| 2381.91 | 8300 | 1027.29 | 1025.36 | 1025.4 | 1027.29 | 1025.37 | 1025.37 | 0 | -0.01 | -0.01 |
| 2316.54 | 8300 | 1026.78 | 1024.88 | 1026.8 | 1026.78 | 1024.9 | 1026.78 | 0 | -0.02 | 0 |
| 2272.43 | 8300 | 1026.43 | 1023.98 | 1026.4 | 1026.43 | 1023.94 | 1026.43 | 0 | 0.04 | 0 |
| 2219.75 | 8300 | 1025.22 | 1023.7 | 1025.2 | 1025.24 | 1023.7 | 1025.24 | -0.02 | 0 | -0.02 |
| 2209.73 | Bridge 5 | 1025.27 | 1023.18 | 1025.3 | | | | | | |
| 2199.7 | 8300 | 1023.66 | 1023.66 | 1023.7 | 1023.66 | 1023.66 | 1023.66 | 0 | 0 | 0 |
| 2157.92 | 8300 | 1020.03 | 1017.67 | 1017.7 | 1020.03 | 1017.67 | 1017.67 | 0 | 0 | 0 |
| 2106.18 | 8300 | 1017.01 | 1015.07 | 1015.1 | 1017.01 | 1015.08 | 1015.08 | 0 | -0.01 | -0.01 |
| 2000 | 8300 | 1010.73 | 1008.42 | 1008.4 | 1010.73 | 1008.4 | 1008.4 | 0 | 0.02 | 0.02 |

## Bridge 5 Velocity Summary verses Flow Regime

| | | Existing | | | Proposed Bridge | | | Difference Between Existing and Proposed | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 100 Yr Peak | Velocity | | | Velocity | | | Velocity | | |
| River Sta | Q Total | (ft/s) | | | (ft/s) | | | (ft/s) | | |
| | (cfs) | Subcritical | Supercritical | Mixed | Subcritical | Supercritical | Mixed | Subcritical | Supercritical | Mixed |
| 2767.01 | 8300 | 13.53 | 13.44 | 13.53 | 13.53 | 13.44 | 13.53 | 0 | 0 | 0 |
| 2570.32 | 8300 | 12.55 | 12.86 | 12.86 | 12.55 | 12.86 | 12.86 | 0 | 0 | 0 |
| 2381.91 | 8300 | 11.04 | 16.95 | 16.95 | 11.04 | 16.93 | 16.93 | 0 | 0.02 | 0.02 |
| 2316.54 | 8300 | 9.64 | 13.7 | 9.64 | 9.63 | 13.65 | 9.63 | 0.01 | 0.05 | 0.01 |
| 2272.43 | 8300 | 9.48 | 14.36 | 9.48 | 9.47 | 14.48 | 9.47 | 0.01 | -0.12 | 0.01 |
| 2219.75 | 8300 | 11.77 | 14.53 | 11.77 | 11.73 | 14.53 | 11.73 | 0.04 | 0 | 0.04 |
| 2209.73 | Bridge 5 | 11.02 | 14.72 | 11.02 | | | | | | |
| 2199.7 | 8300 | 14.42 | 14.42 | 14.42 | 14.42 | 14.42 | 14.42 | 0 | 0 | 0 |
| 2157.92 | 8300 | 14.69 | 21.28 | 21.28 | 14.69 | 21.27 | 21.27 | 0 | 0.01 | 0.01 |
| 2106.18 | 8300 | 16.41 | 21.3 | 21.3 | 16.41 | 21.26 | 21.26 | 0 | 0.04 | 0.04 |
| 2000 | 8300 | 15.11 | 21.65 | 21.65 | 15.11 | 21.71 | 21.71 | 0 | -0.06 | -0.06 |

| Bridge 5 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subcritical Existing | | | | | | | | | | | |
| | | | | | | | | | | | |
| Reach | River Sta | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
| | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 5 | 2767.01 | 8300 | 1033 | 1044.52 | 1044.52 | 1047.18 | 0.01452 | 13.53 | 688.13 | 144.73 | 0.87 |
| Bridge 5 | 2570.32 | 8300 | 1028 | 1037.6 | 1037.6 | 1040.04 | 0.022297 | 12.55 | 661.56 | 137.83 | 1.01 |
| Bridge 5 | 2381.91 | 8300 | 1020.18 | 1027.29 | 1026.67 | 1029.16 | 0.013922 | 11.04 | 769.46 | 156.66 | 0.82 |
| Bridge 5 | 2316.54 | 8300 | 1017.84 | 1026.78 | | 1028.21 | 0.008844 | 9.64 | 876.38 | 151.19 | 0.67 |
| Bridge 5 | 2272.43 | 8300 | 1015.67 | 1026.43 | | 1027.82 | 0.008236 | 9.48 | 875.77 | 129.33 | 0.64 |
| Bridge 5 | 2219.75 | 8300 | 1012.48 | 1025.22 | | 1027.31 | 0.009859 | 11.77 | 735.46 | 101.32 | 0.7 |
| Bridge 5 | 2209.73 | 8300 | 1010.78 | 1025.27 | | 1027.15 | 0.008961 | 11.02 | 763.26 | 99.92 | 0.67 |
| Bridge 5 | 2199.7 | 8300 | 1010.85 | 1023.66 | 1023.66 | 1026.89 | 0.021809 | 14.42 | 576.02 | 90.22 | 1 |
| Bridge 5 | 2157.92 | 8300 | 1008.86 | 1020.03 | 1019.78 | 1023.38 | 0.018763 | 14.69 | 564.89 | 77.81 | 0.96 |
| Bridge 5 | 2106.18 | 8300 | 1002 | 1017.01 | 1017.01 | 1021.19 | 0.022275 | 16.41 | 505.66 | 61.8 | 1.01 |
| Bridge 5 | 2000 | 8300 | 996.7 | 1010.73 | 1010.73 | 1014.27 | 0.020866 | 15.11 | 549.42 | 78.34 | 1.01 |

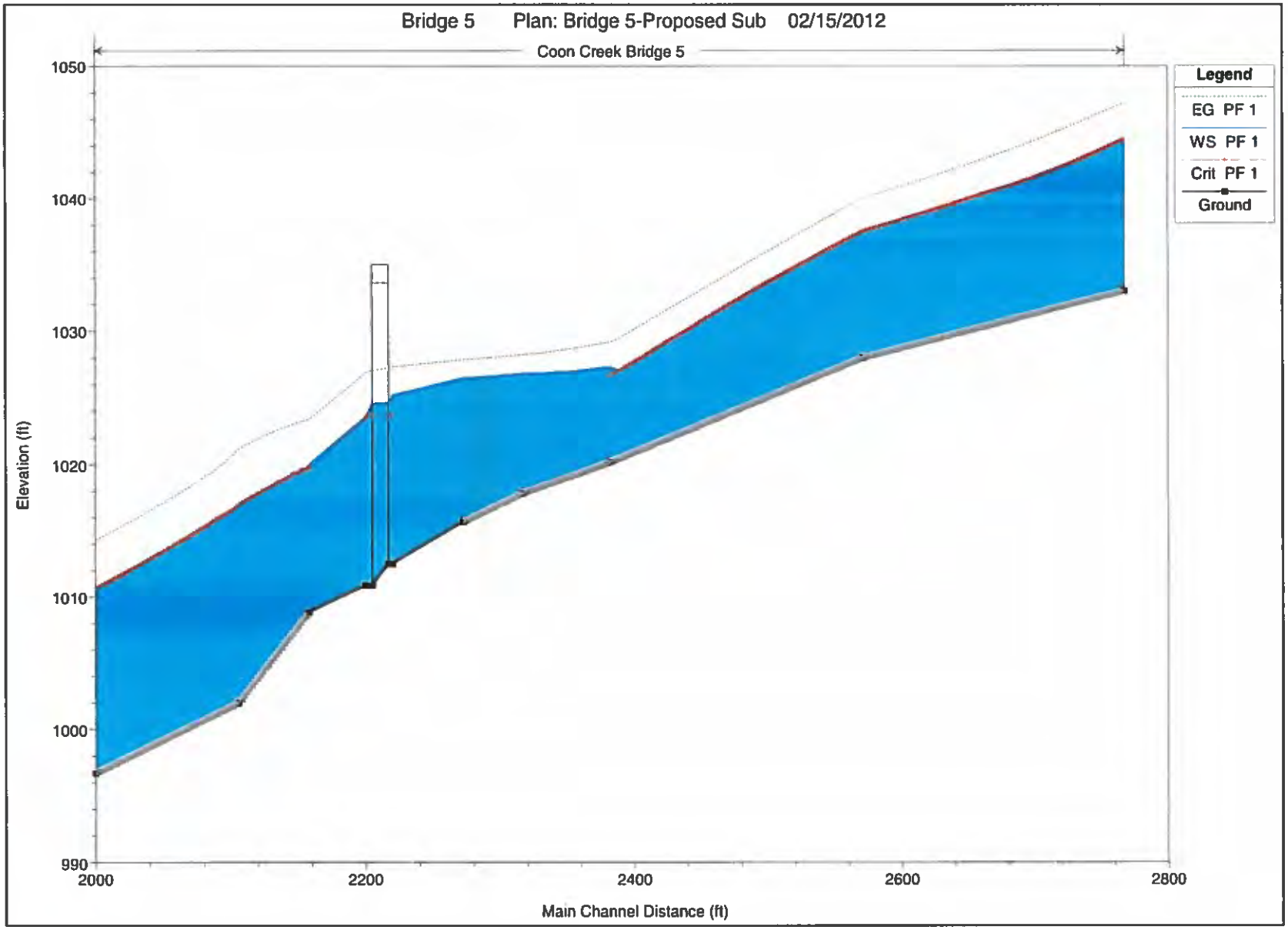
| Bridge 5 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Supercritical Existing | | | | | | | | | | | |
| | | | | | | | | | | | |
| Reach | River Sta | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
| | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 5 | 2767.01 | 8300 | 1033 | 1044.56 | 1044.56 | 1047.18 | 0.014216 | 13.44 | 693.99 | 145.54 | 0.86 |
| Bridge 5 | 2570.32 | 8300 | 1028 | 1037.48 | 1037.63 | 1040.05 | 0.023803 | 12.86 | 645.54 | 136.15 | 1.04 |
| Bridge 5 | 2381.91 | 8300 | 1020.18 | 1025.36 | 1026.67 | 1029.81 | 0.055606 | 16.95 | 492.52 | 133.75 | 1.53 |
| Bridge 5 | 2316.54 | 8300 | 1017.84 | 1024.88 | 1025.26 | 1027.79 | 0.0283 | 13.7 | 606.35 | 133.38 | 1.12 |
| Bridge 5 | 2272.43 | 8300 | 1015.67 | 1023.98 | 1024.4 | 1027.18 | 0.027886 | 14.36 | 578.19 | 113.2 | 1.12 |
| Bridge 5 | 2219.75 | 8300 | 1012.48 | 1023.7 | 1023.7 | 1026.94 | 0.019406 | 14.53 | 586.05 | 96.14 | 0.96 |
| Bridge 5 | 2209.73 | 8300 | 1010.78 | 1023.18 | 1023.25 | 1026.55 | 0.022413 | 14.72 | 564.64 | 88.91 | 1.01 |
| Bridge 5 | 2199.7 | 8300 | 1010.85 | 1023.66 | 1023.66 | 1026.89 | 0.021809 | 14.42 | 576.02 | 90.22 | 1 |
| Bridge 5 | 2157.92 | 8300 | 1008.86 | 1017.67 | 1019.78 | 1024.7 | 0.055275 | 21.28 | 389.98 | 70.15 | 1.59 |
| Bridge 5 | 2106.18 | 8300 | 1002 | 1015.07 | 1017.03 | 1022.12 | 0.04748 | 21.3 | 389.66 | 58.08 | 1.45 |
| Bridge 5 | 2000 | 8300 | 996.7 | 1008.42 | 1010.73 | 1015.7 | 0.054478 | 21.65 | 383.37 | 65.44 | 1.58 |

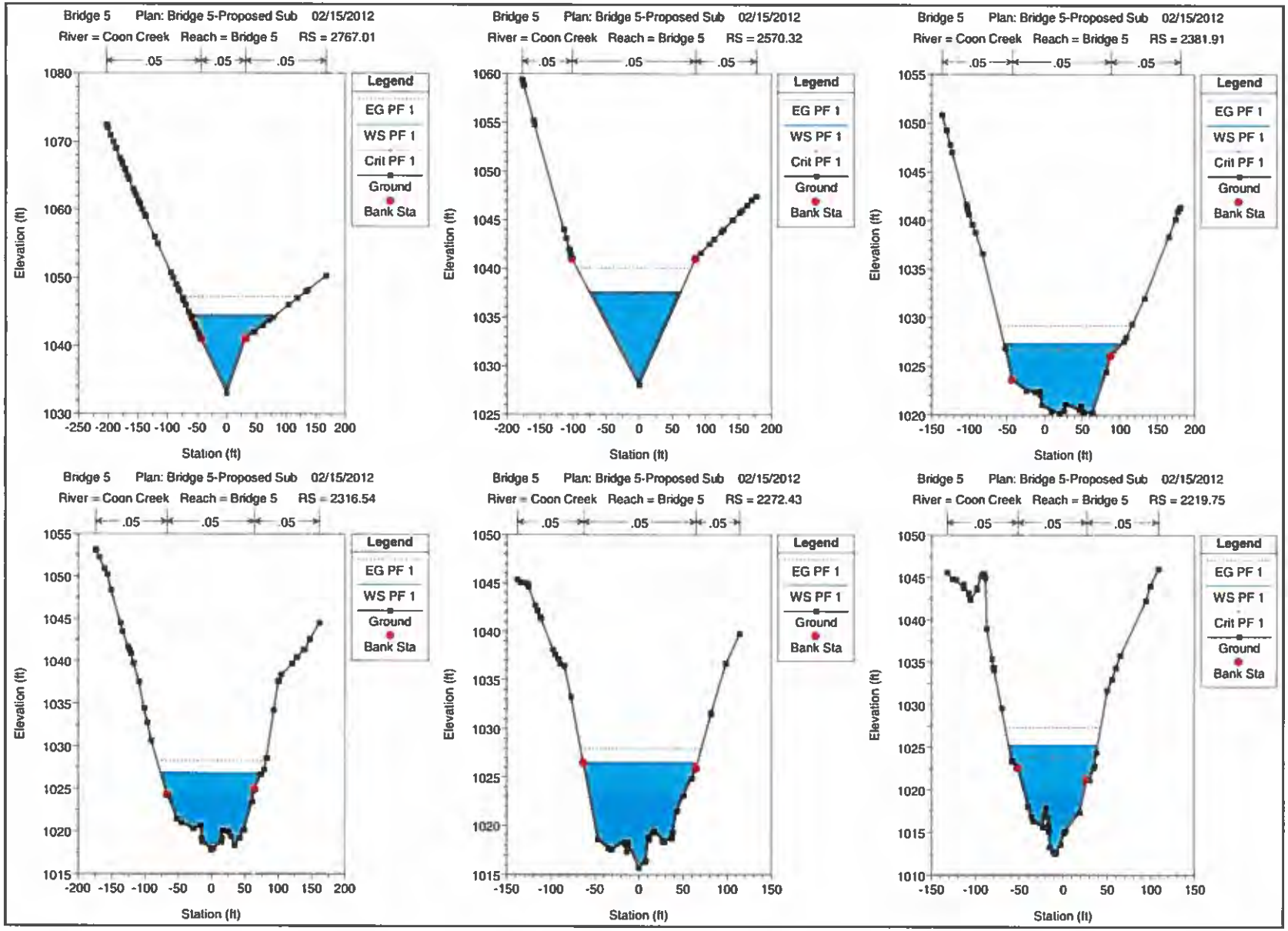
| Bridge 5 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Mixed Existing | | | | | | | | | | | |
| | | | | | | | | | | | |
| Reach | River Sta | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
| | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 5 | 2767.01 | 8300 | 1033 | 1044.52 | 1044.52 | 1047.18 | 0.01452 | 13.53 | 688.13 | 144.73 | 0.87 |
| Bridge 5 | 2570.32 | 8300 | 1028 | 1037.48 | 1037.63 | 1040.05 | 0.023803 | 12.86 | 645.54 | 136.15 | 1.04 |
| Bridge 5 | 2381.91 | 8300 | 1020.18 | 1025.36 | 1026.67 | 1029.81 | 0.055606 | 16.95 | 492.52 | 133.75 | 1.53 |
| Bridge 5 | 2316.54 | 8300 | 1017.84 | 1026.78 | | 1028.21 | 0.008844 | 9.64 | 876.38 | 151.19 | 0.67 |
| Bridge 5 | 2272.43 | 8300 | 1015.67 | 1026.43 | | 1027.82 | 0.008236 | 9.48 | 875.77 | 129.33 | 0.64 |
| Bridge 5 | 2219.75 | 8300 | 1012.48 | 1025.22 | | 1027.31 | 0.009859 | 11.77 | 735.46 | 101.32 | 0.7 |
| Bridge 5 | 2209.73 | 8300 | 1010.78 | 1025.27 | | 1027.15 | 0.008961 | 11.02 | 763.26 | 99.92 | 0.67 |
| Bridge 5 | 2199.7 | 8300 | 1010.85 | 1023.66 | 1023.66 | 1026.89 | 0.021809 | 14.42 | 576.02 | 90.22 | 1 |
| Bridge 5 | 2157.92 | 8300 | 1008.86 | 1017.67 | 1019.78 | 1024.71 | 0.055286 | 21.28 | 389.96 | 70.15 | 1.59 |
| Bridge 5 | 2106.18 | 8300 | 1002 | 1015.07 | 1017.03 | 1022.12 | 0.047489 | 21.3 | 389.64 | 58.08 | 1.45 |
| Bridge 5 | 2000 | 8300 | 996.7 | 1008.42 | 1010.73 | 1015.7 | 0.054478 | 21.65 | 383.37 | 65.44 | 1.58 |

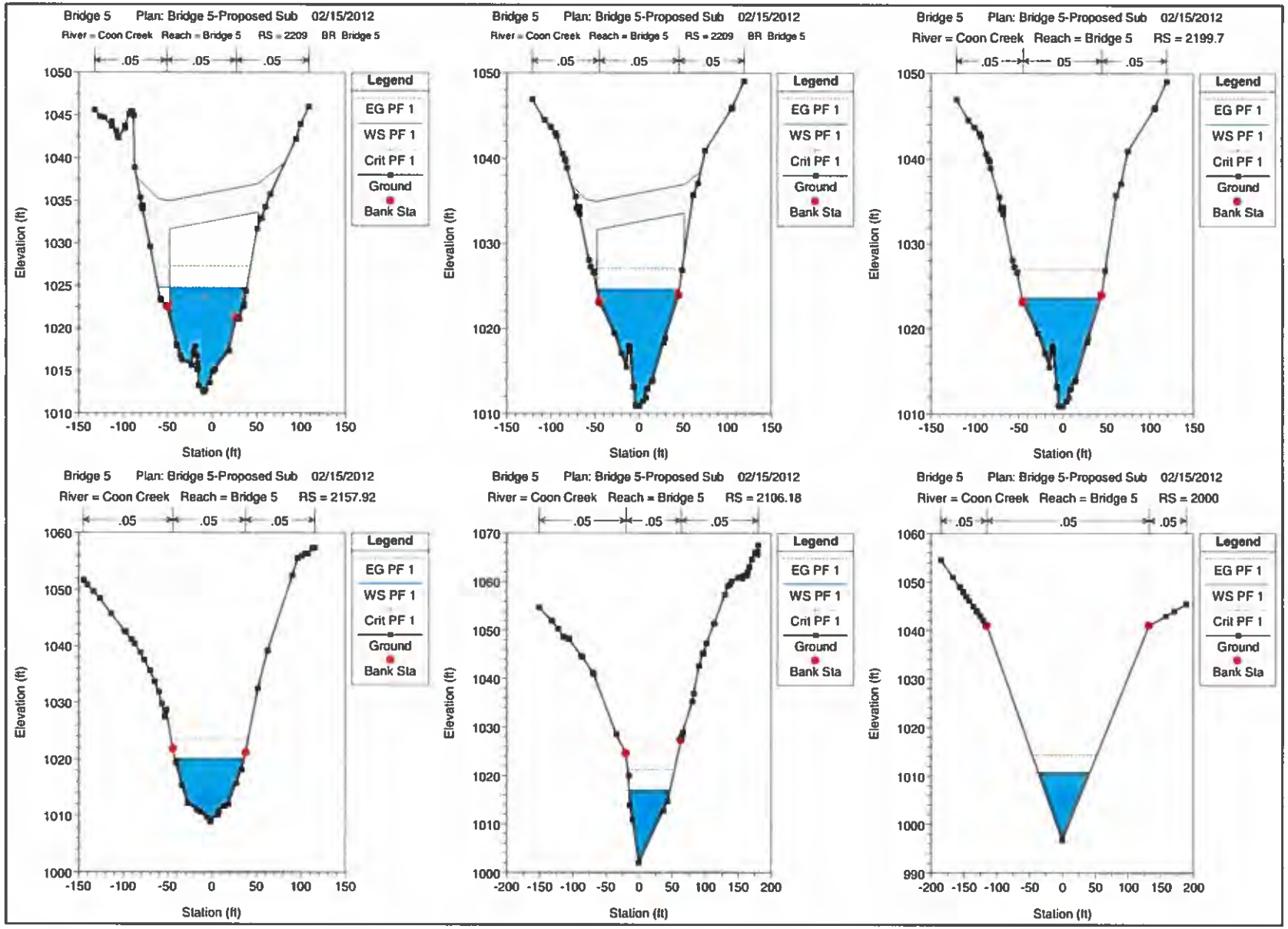
| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bridge 5 | | | | | | | | | | | |
| Subcritical Proposed | | | | | | | | | | | |
| | | | | | | | | | | | |
| Reach | River Sta | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
| | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 5 | 2767.01 | 8300 | 1033 | 1044.52 | 1044.52 | 1047.18 | 0.01452 | 13.53 | 688.13 | 144.73 | 0.87 |
| Bridge 5 | 2570.32 | 8300 | 1028 | 1037.6 | 1037.6 | 1040.04 | 0.022297 | 12.55 | 661.56 | 137.83 | 1.01 |
| Bridge 5 | 2381.91 | 8300 | 1020.18 | 1027.29 | 1026.67 | 1029.16 | 0.013918 | 11.04 | 769.53 | 156.67 | 0.82 |
| Bridge 5 | 2316.54 | 8300 | 1017.84 | 1026.78 | | 1028.21 | 0.008816 | 9.63 | 877.3 | 151.27 | 0.66 |
| Bridge 5 | 2272.43 | 8300 | 1015.67 | 1026.43 | | 1027.83 | 0.008203 | 9.47 | 876.91 | 129.38 | 0.64 |
| Bridge 5 | 2219.75 | 8300 | 1012.48 | 1025.24 | 1023.7 | 1027.32 | 0.009755 | 11.73 | 738.09 | 101.41 | 0.7 |
| Bridge 5 | 2209 | Bridge | | | | | | | | | |
| Bridge 5 | 2199.7 | 8300 | 1010.85 | 1023.66 | 1023.66 | 1026.89 | 0.021809 | 14.42 | 576.02 | 90.22 | 1 |
| Bridge 5 | 2157.92 | 8300 | 1008.86 | 1020.03 | 1019.78 | 1023.38 | 0.018757 | 14.69 | 564.96 | 77.81 | 0.96 |
| Bridge 5 | 2106.18 | 8300 | 1002 | 1017.01 | 1017.01 | 1021.19 | 0.022274 | 16.41 | 505.67 | 61.8 | 1.01 |
| Bridge 5 | 2000 | 8300 | 996.7 | 1010.73 | 1010.73 | 1014.27 | 0.020866 | 15.11 | 549.42 | 78.34 | 1.01 |

| Bridge 5 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Supercritical Proposed | | | | | | | | | | | |
| | | | | | | | | | | | |
| Reach | River Sta | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
| | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 5 | 2767.01 | 8300 | 1033 | 1044.56 | 1044.56 | 1047.18 | 0.014216 | 13.44 | 693.99 | 145.54 | 0.86 |
| Bridge 5 | 2570.32 | 8300 | 1028 | 1037.48 | 1037.63 | 1040.05 | 0.023805 | 12.86 | 645.53 | 136.15 | 1.04 |
| Bridge 5 | 2381.91 | 8300 | 1020.18 | 1025.37 | 1026.67 | 1029.8 | 0.055338 | 16.93 | 493.29 | 133.79 | 1.53 |
| Bridge 5 | 2316.54 | 8300 | 1017.84 | 1024.9 | 1025.26 | 1027.79 | 0.027943 | 13.65 | 608.7 | 133.54 | 1.12 |
| Bridge 5 | 2272.43 | 8300 | 1015.67 | 1023.94 | 1024.4 | 1027.2 | 0.028602 | 14.48 | 573.12 | 112.86 | 1.13 |
| Bridge 5 | 2219.75 | 8300 | 1012.48 | 1023.7 | 1023.7 | 1026.94 | 0.019406 | 14.53 | 586.05 | 96.14 | 0.96 |
| Bridge 5 | 2209 | Bridge | | | | | | | | | |
| Bridge 5 | 2199.7 | 8300 | 1010.85 | 1023.66 | 1023.66 | 1026.89 | 0.021809 | 14.42 | 576.02 | 90.22 | 1 |
| Bridge 5 | 2157.92 | 8300 | 1008.86 | 1017.67 | 1019.78 | 1024.7 | 0.055175 | 21.27 | 390.23 | 70.17 | 1.59 |
| Bridge 5 | 2106.18 | 8300 | 1002 | 1015.08 | 1017.03 | 1022.1 | 0.047221 | 21.26 | 390.39 | 58.1 | 1.45 |
| Bridge 5 | 2000 | 8300 | 996.7 | 1008.4 | 1010.73 | 1015.72 | 0.054912 | 21.71 | 382.23 | 65.34 | 1.58 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bridge 5 | | | | | | | | | | | |
| Mixed Proposed | | | | | | | | | | | |
| | | | | | | | | | | | |
| Reach | River Sta | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
| | | (cfs) | (ft) | (ft) | (ft) | (ft) | (ft/ft) | (ft/s) | (sq ft) | (ft) | |
| Bridge 5 | 2767.01 | 8300 | 1033 | 1044.52 | 1044.52 | 1047.18 | 0.01452 | 13.53 | 688.13 | 144.73 | 0.87 |
| Bridge 5 | 2570.32 | 8300 | 1028 | 1037.48 | 1037.63 | 1040.05 | 0.023805 | 12.86 | 645.53 | 136.15 | 1.04 |
| Bridge 5 | 2381.91 | 8300 | 1020.18 | 1025.37 | 1026.67 | 1029.8 | 0.055338 | 16.93 | 493.29 | 133.79 | 1.53 |
| Bridge 5 | 2316.54 | 8300 | 1017.84 | 1026.78 | | 1028.21 | 0.008816 | 9.63 | 877.3 | 151.27 | 0.66 |
| Bridge 5 | 2272.43 | 8300 | 1015.67 | 1026.43 | | 1027.83 | 0.008203 | 9.47 | 876.91 | 129.38 | 0.64 |
| Bridge 5 | 2219.75 | 8300 | 1012.48 | 1025.24 | 1023.7 | 1027.32 | 0.009755 | 11.73 | 738.09 | 101.41 | 0.7 |
| Bridge 5 | 2209 | Bridge | | | | | | | | | |
| Bridge 5 | 2199.7 | 8300 | 1010.85 | 1023.66 | 1023.66 | 1026.89 | 0.021809 | 14.42 | 576.02 | 90.22 | 1 |
| Bridge 5 | 2157.92 | 8300 | 1008.86 | 1017.67 | 1019.78 | 1024.7 | 0.05518 | 21.27 | 390.22 | 70.16 | 1.59 |
| Bridge 5 | 2106.18 | 8300 | 1002 | 1015.08 | 1017.03 | 1022.1 | 0.047225 | 21.26 | 390.38 | 58.1 | 1.45 |
| Bridge 5 | 2000 | 8300 | 996.7 | 1008.4 | 1010.73 | 1015.72 | 0.054912 | 21.71 | 382.23 | 65.34 | 1.58 |


Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
Coon Creek Bridge 5
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (ft)
1050
1040
1030
1020
1010
1000
990
2000
2200
2400
2600
2800
Main Channel Distance (ft)


Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2767.01
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2570.32
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2381.91
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2316.54
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2272.43
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2219.75
.05
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2209 BR Bridge 5
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2209 BR Bridge 5
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2199.7
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2157.92
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2106.18
Bridge 5 Plan: Bridge 5-Proposed Sub 02/15/2012
River = Coon Creek Reach = Bridge 5 RS = 2000
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)

# IX. APPENDIX D: REFERENCES

**From:** Andrew Darrow [mailto:ADarrow@placer.ca.gov]
**Sent:** Monday, October 06, 2008 3:48 PM
**To:** Tim Arndt
**Cc:** Carl Sloan
**Subject:** RE: two maps for HFRP

Tim,

Here are the recommended 100-year peak flow rates for the three Hidden Falls bridge sites:

Bridge #1: 8,440 cfs (based on 36.43 square mile drainage area)
Bridge #2: 7,454 cfs (32.67 sq. mi.)
Bridge #3: 6,587 cfs (29.70 sq. mi.)

These flow rates are based on buildout conditions of the upstream watershed.

Let me know if you need anything else.

Andy

Andrew J. Darrow, P.E.
Development Coordinator
Placer County Flood Control and
Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603
adarrow@placer.ca.gov
(530) 745-7541
(530) 745-3531 (fax)

## Mike Hauge

**From:** Melissa Larsen
**Sent:** Wednesday, December 16, 2009 2:26 PM
**To:** Mike Hauge
**Subject:** FW: PDP help
**Attachments:** PDPbatchfile2.old

---

**From:** Andrew Darrow [mailto:ADarrow@placer.ca.gov]
**Sent:** Tuesday, December 01, 2009 2:33 PM
**To:** Melissa Larsen
**Subject:** RE: PDP help

Melissa,

Yes, I used the CCFU.GEN file as the PDP input file. I've attached the batch file that I used to run PDP (you'll have to change the extension to ".bat"). It produced the same incremental precip values that are shown in the CCFU.H1I file (for the 100-year event). You can then edit the batch file for each separate storm event (25-year, 50-year, etc.) and create separate HEC-1 input files for each event.

With regards to the zero elevation, I honestly don't know why this was used. I would recommend either continuing to use zero (in order to be consistent with the current model), or adjust the elevation to match the avg. elevation in the subshed(s) you are looking at.

Let me know if you have any questions.

Andy

Andrew J. Darrow, P.E.
Development Coordinator
Placer County Flood Control and
Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603
adarrow@placer.ca.gov
(530) 745-7541
(530) 745-3531 (fax)

**From:** Melissa Larsen [mailto:mlarsen@carlton-engineering.com]
**Sent:** Monday, November 30, 2009 5:49 PM
**To:** Andrew Darrow
**Subject:** RE: PDP help

Andy,
I used the file that you sent me (CCFU.GEN) as the input file for PDP in order to generate the 100-yr storm precipitation input cards for HEC1. I took the HEC1 input file that PDP created and ran it through HEC1. I was trying to duplicate the HEC1 output file "CCFU.H1O" so that I know we have the right data files for the Hidden Falls project. I was unable to duplicate it. I think this is because PDP input file called H1100AFU.INP is called up and used to create CCFU.H1O.

If I understand you correctly (in the email below) we should use the CCFU.GEN file as input to PDP rather

than the CCFU.H1I file that I have been using. Can you confirm this for me?

Also, I see that an elevation of zero is used in the PDP files that you sent us. Can you explain why the County would use zero?

Thanks,
Melissa

---

**From:** Andrew Darrow [mailto:ADarrow@placer.ca.gov]
**Sent:** Monday, November 23, 2009 3:24 PM
**To:** Melissa Larsen
**Subject:** RE: PDP help

Melissa,

Attached is the Cross Canal HEC-1 data file (ccfu.gen) without any inserted PI data. I was able to generate the HEC-1 input file (with the PI data inserted) using this file with the PDP batch file. You only need to edit the first * PI line and it will automatically apply the same parameters to all subsheds in the model. Let me know if this works for you.

Andy

Andrew J. Darrow, P.E.
Development Coordinator
Placer County Flood Control and
Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603
adarrow@placer.ca.gov
(530) 745-7541
(530) 745-3531 (fax)

**From:** Melissa Larsen [mailto:mlarsen@carlton-engineering.com]
**Sent:** Saturday, November 21, 2009 4:59 PM
**To:** Andrew Darrow
**Cc:** Mike Hauge
**Subject:** PDP help

Andrew,
I'm working with Mike Hauge at Carlton Engineering on the Hidden Falls Regional Park project. I'm attempting to get the PDP program to create input files for HEC1 for the 25-, 50-, and 75-year storm frequencies. Mike has forwarded your and the program files that you sent him. It seems like your instructions are simple and straight forward but I feel like I'm creating files that call each other in a circular, never-ending mishap. Do you have some time on Monday or Tuesday of this week to speak with me by telephone? The program seems simple and with some instant feedback, I might be able to get it up and running for us.

**Melissa Larsen**
Sr. Project Engineer

CARLTON Engineering

Corporate Office
3883 Ponderosa Road
Shingle Springs, CA 95682

Rocklin Office
590 Menlo Drive, Ste. 1
Rocklin, CA 95765

mlarsen@carlton-engineering.com
Phone: (530) 748-8235

Fax: (530) 677-6645
www.carlton-engineering.com
3883 Ponderosa Road
Shingle Springs, CA 95682

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## Mike Hauge

**From:** Melissa Larsen
**Sent:** Wednesday, December 16, 2009 2:26 PM
**To:** Mike Hauge
**Subject:** FW: Hidden Falls Regional Park

---

**From:** Andrew Darrow [mailto:ADarrow@placer.ca.gov]
**Sent:** Tuesday, December 08, 2009 10:34 AM
**To:** Melissa Larsen
**Subject:** RE: Hidden Falls Regional Park

Melissa,

I do not see any significant differences in the models. Fortunately, the differences in peak flow rates appear to be minor (about 1 to 2 percent?). I don't have a problem with using the HEC-1 file that you attached.

Regarding the elevation for the upstream watershed, I would recommend using an elevation of 1500 feet. The Coon Creek watershed extends up to near Applegate.

Andy

Andrew J. Darrow, P.E.
Development Coordinator
Placer County Flood Control and
Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603
adarrow@placer.ca.gov
(530) 745-7541
(530) 745-3531 (fax)

**From:** Melissa Larsen [mailto:mlarsen@carlton-engineering.com]
**Sent:** Friday, December 04, 2009 4:08 PM
**To:** Andrew Darrow
**Subject:** Hidden Falls Regional Park

Andrew,
I have successfully created the HEC1 input files – the PI data looks the same as the CCFU.H1I data file. However, I'm still getting different peak flow values in the HEC1 output files. I've attached the 100-year event (using zero elevation for consistency) output from HEC1. Do you see any obvious red flags in the data (Input or output)?

I used the same PDP input file and the same PDP command line as you. It is different than the CCFU.H1O file that I received from you (via Mike Hauge) a few weeks ago. Any thoughts?

I'd appreciate any suggestions you may have.

Melissa

## Mike Hauge

**From:** Andrew Darrow [ADarrow@placer.ca.gov]
**Sent:** Friday, January 08, 2010 8:09 AM
**To:** Mike Hauge
**Cc:** Carl Sloan
**Subject:** RE: Coon Creek Hydrology

Carl/Mike,

Thank you for the HEC-1 file. At this point I am recommending that you use the precipitation, and corresponding peak flow rates, based on the 1500 elevation. Let me know if you need the subshed combination points that should be used for each bridge site, I believe I still have those.

As I mentioned before, I have not found any background information on why a "0" elevation was used in the original model. Precipitation amounts based on the 1500 feet elevation more closely match the watershed conditions for the Hidden Falls Park area and the requirements in the Placer County Stormwater Management Manual.

Let me know if you need anything else.

Andy

Andrew J. Darrow, P.E.
Development Coordinator
Placer County Flood Control and
Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603
adarrow@placer.ca.gov
(530) 745-7541
(530) 745-3531 (fax)

---

**From:** Mike Hauge [mailto:mhauge@carlton-engineering.com]
**Sent:** Monday, January 04, 2010 9:00 AM
**To:** Andrew Darrow
**Cc:** Carl Sloan
**Subject:** RE: Coon Creek Hydrology

Andy,

Good morning. Attached is the HEC-1 output file for the 100 year storm using an elevation of 1500 ft. Please let us know if you need anything else.

Thanks,

Mike Hauge

---

**From:** Andrew Darrow [mailto:ADarrow@placer.ca.gov]
**Sent:** Monday, January 04, 2010 8:09 AM
**To:** Carl Sloan
**Cc:** Mike Hauge
**Subject:** RE: Coon Creek Hydrology

Hi Carl,

Thanks for the clarification. Hope you had a nice holiday break.

Can you send me the HEC-1 models that Melissa revised based on a 1500 feet elevation? I just need the 100-year files at this point.

I'm leaning towards recommending the hydrology that is based on the 1500 feet elevation. I have not found any background information on why a "0" elevation was used in the original model. Precipitation amounts based on the 1500 feet elevation more closely match the watershed conditions for the Hidden Falls Park area and the requirements in the Placer County Stormwater Management Manual.

Andy

Andrew J. Darrow, P.E.
Development Coordinator
Placer County Flood Control and
Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603
adarrow@placer.ca.gov
(530) 745-7541
(530) 745-3531 (fax)

**From:** Carl Sloan [mailto:csloan@carlton-engineering.com]
**Sent:** Wednesday, December 23, 2009 8:16 AM
**To:** Andrew Darrow
**Cc:** Mike Hauge
**Subject:** Coon Creek Hydrology

Hello Andy,

Just a quick follow up on our phone conversation. It is important that we understand which model we should be using for the following reasons:

1. The flows in the creek will have an effect on the amount of money that the County spends on the bridges. For example, if the flow from the 1500' model shows the 100 yr flood has a 100' wide footprint, vs the 0' model showing an 80' wide footprint, than that will affect the clear span of the bridge and therefore the cost.
2. We need to accurately map the flood level in the creek at the 10, 25, 50 and 100 year storms so we can give the County options on where to place their abutments and the associated risk. We need to be able to tell them that if they place their abutment in a certain location, the odds of a storm are X and be confident that we are correct within reason. Because the County is going to invest $250k to $500k in a bridge at each location, we need to be sure we are giving them the best information possible to manage the risk.

I was not sure I communicated this information clearly so I wanted to follow up with this note. Thank you very much for your help and I look forward to getting your thoughts on the model. Have a great holiday!

Regards,

**Carl Sloan, PE**
Civil Department Manager
Survey Department Manager

Cell: (530) 391-6849
Phone: (530) 677-5515
Direct Phone: (530) 672-4031

Fax: (530) 677-6645
www.carlton-engineering.com

Holiday Schedule: Carlton Engineering will be closed begining December 24, reopening on January 4.

CARLTON Engineering

Corporate Office
3883 Ponderosa Road
Shingle Springs, CA 95682

Rocklin Office
590 Menlo Drive. Ste. 1
Rocklin, CA 95765

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Computer-Assisted

# Floodplain Hydrology and Hydraulics

Second Edition

Daniel H. Hoggan

**TABLE 11.2 Values of Roughness Coefficient *n* (*Continued*)**

**(Underscored Values Are Generally Recommended in Design)**

| Type of channel and description | Minimum | Normal | Maximum |
|---|---|---|---|
| D. Natural streams (*cont.*) | | | |
| 6. Same as 4, but more stones | 0.045 | 0.050 | [illegible] |
| 7. Sluggish reaches, weedy, deep pools | 0.050 | 0.070 | [illegible] |
| 8. Very weedy reaches, deep pools, or floodways with heavy stand of timber and underbrush | 0.075 | 0.100 | [illegible] |
| *b.* Mountain streams, no vegetation in channel, banks usually steep, trees and brush along banks submerged at high stages | | | |
| 1. Bottom: gravels, cobbles, and few boulders | 0.030 | 0.040 | [illegible] |
| 2. Bottom: cobbles with large boulders | 0.040 | 0.050 | [illegible] |
| D-2. Floodplains | | | |
| *a.* Pasture, no brush | | | |
| 1. Short grass | 0.025 | 0.030 | [illegible] |
| 2. High grass | 0.030 | 0.035 | [illegible] |
| *b.* Cultivated areas | | | |
| 1. No crop | 0.020 | 0.030 | [illegible] |
| 2. Mature row crops | 0.025 | 0.035 | [illegible] |
| 3. Mature field crops | 0.030 | 0.040 | [illegible] |
| *c.* Brush | | | |
| 1. Scattered brush, heavy weeds | 0.035 | 0.050 | [illegible] |
| 2. Light brush and trees, in winter | 0.035 | 0.050 | [illegible] |
| 3. Light brush and trees, in summer | 0.040 | 0.060 | [illegible] |
| 4. Medium to dense brush, in winter | 0.045 | 0.070 | [illegible] |
| 5. Medium to dense brush, in summer | 0.070 | 0.100 | [illegible] |
| *d.* Trees | | | |
| 1. Dense willows, summer, straight | 0.110 | 0.150 | [illegible] |
| 2. Cleared land with tree stumps, no sprouts | 0.030 | 0.040 | [illegible] |
| 3. Same as above, but with heavy growth of sprouts | 0.050 | 0.060 | [illegible] |
| 4. Heavy stand of timber, a few down trees, little undergrowth, flood stage below branches | 0.080 | 0.100 | [illegible] |
| 5. Same as above, but with flood stage reaching branches | 0.100 | 0.120 | [illegible] |
| D-3. Major streams (top width at flood stage >100 ft). The *n* value is less than that for minor streams of similar description because banks offer less effective resistance. | | | |
| *a.* Regular section with no boulders or brush | 0.025 | | [illegible] |
| *b.* Irregular and rough section | 0.035 | | [illegible] |

SOURCE: Chow.[2]

# X. APPENDIX E: SCOUR ANALYSIS

Hydraulic Design Data
Abutment Scour

| | Left | Right |
|---|---|---|
| **Input Data** | | |
| Station at Toe (ft): | -47.60 | 51.20 |
| Toe Sta at appr (ft): | -59.29 | 88.82 |
| Abutment Length (ft): | 3.96 | 1.80 |
| Depth at Toe (ft): | 4.29 | -6.65 |
| K1 Shape Coef: | 1.00 - Vertical abutment | |
| Degree of Skew (degrees): | 90.00 | 90.00 |
| K2 Skew Coef: | 1.00 | 1.00 |
| Projected Length L' (ft): | 3.96 | 1.80 |
| Avg Depth Obstructed Ya (ft): | 6.91 | 0.30 |
| Flow Obstructed Qe (cfs): | 256.94 | 0.62 |
| Area Obstructed Ae (sq ft): | 27.36 | 0.54 |
| **Results** | | |
| Scour Depth Ys (ft): | 16.22 | |
| Qe/Ae = Ve: | 9.39 | |
| Froude #: | 0.63 | |
| Equation: | Froehlich | Default |

NOTE: SCOUR DEPTH IS CALCULATED TO BE 16.2' BELOW THE SOUTH ABUTMENT. THE ABUTMENT WILL BE FOUNDED ON COMPETENT BEDROCK WHICH IS LESS THAN THE CALCULATED SCOUR DEPTH. THEREFORE SCOUR WILL NOT REACH THE CALCULATED DEPTHS.

# APPENDIX I

Biological Resources Appendices

# Special-Status Plant Survey

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

September 8, 2017

Lisa Carnahan, Parks Planner
Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603

**Subject: Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project, Placer County, California**

Dear Ms. Carnahan:

Placer County (County) opened the 1,200-acre Hidden Falls Regional Park (HFRP) in 2013. HFRP has approximately 30 miles of trails and two waterfall overlooks, and its popularity and usage has grown rapidly. The HFRP project was described and evaluated in a California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) published by the County in 2009 (EDAW/AECOM 2009) and certified in January 2010.

The County is currently proposing to expand the HFRP trail network onto additional lands owned by the Placer Land Trust (PLT), where the County holds trail easement rights, and also onto land owned by the County. The County will prepare a Subsequent EIR (SEIR) pursuant to the State CEQA Guidelines Section 15162 to describe and evaluate the potential environmental impacts of developing the proposed new trails and access areas (proposed project).

This letter report summarizes the methods and results of the special-status plant surveys conducted in the proposed trail network expansion area (study area), which consists of the proposed trail alignments and their associated access areas. These surveys consisted of focused botanical surveys to identify occurrences of special-status plants that could be disturbed as a result of the construction of proposed trails and access areas.

## PROJECT LOCATION AND STUDY AREA DESCRIPTION

The project area, which consists of the HFRP and the proposed trail expansion study area, is in western Placer County, south of the Bear River, approximately 40 miles northeast of Sacramento (Exhibit 1, Appendix A). HFRP, which encompasses approximately 1,200 acres in the Sierra Nevada foothills, consists of the properties formerly known as the Spears Ranch and Didion Ranch. The existing park has two access points, with a parking area at Mears Place and an area for a future parking lot off of Garden Bar Road.

Exhibit 2 (Appendix A) shows the existing regional park, the recently acquired parcel off of Garden Bar Road, and the boundaries of the proposed trail network expansion areas. Most of the proposed trail expansion areas are north and northeast of the existing park; they consist of the areas known as Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres) and of privately owned parcels with trail easements, such as Liberty Ranch (313 acres). Harvego Bear River Preserve has a working cattle ranch, an extensive network of existing ranch roads, and some trails built by the Placer Land Trust. Liberty Ranch is a cattle ranch currently under Williamson Act contract; it has no existing trails. Trails will also cross the Kotomyan Big Hill Preserve (160 acres) and Outman Big Hill Preserve (80 acres). The Outman Big Hill Preserve has no existing trails. Trail connections are also proposed from a recently acquired parcel off of Garden Bar Road to the western end of the existing park and

from the eastern end of the park to the Taylor Ranch, through parcels either owned or held in easement by Placer County. The U.S. Bureau of Land Management (BLM) owns the area in between the two portions of the Harvego Bear River Preserve and south of the Bear River. As shown on Exhibit 2, the majority of the trail expansion area is between the existing regional park and the Bear River to the north. Access is currently constrained by limited roadways and surrounding private property. Entry to these areas is currently limited to guided tours led by the PLT. The County has trail easement rights within these properties. The lands adjacent to these areas consist of rolling hills and are primarily private lands used for agriculture, grazing, and rural residences.

## METHODS

Before conducting the field surveys, AECOM biologists compiled a list of special-status plant species with potential to occur in the study area by performing database searches of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (Inventory) (CNPS 2017), the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2017), and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation project planning tool (USFWS 2017). The Gold Hill U.S. Geological Survey 7.5-minute quadrangle and its eight surrounding quads—Rocklin, Pilot Hill, Auburn, Lake Combie, Wolf, Lincoln, Roseville, and Camp Far West—were included in the database record searches.

AECOM biologists also reviewed previously prepared environmental documents that addressed biological resources at HFRP. These documents included, but are not limited to, the *Administrative Draft Special-Status Plant Report for the Hidden Falls Regional Park Project* (Placer County 2007) and *Results of Special-Status Plants Surveys for the Placer Land Trust Connectivity Study Area* (Placer County 2009).

AECOM biologists Pamela Brillante and Kristin Asmus conducted focused special-status plant surveys on May 15, 30, and 31 and June 1 and 2, 2017. The surveys, which were conducted throughout the study area, covered the proposed trail system alignments plus 50 feet on either side of the trails, stream crossing locations, staging areas, and parking areas (Exhibit 3, Appendix A). The protocols for the special-status plant surveys followed CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009) and U.S. Fish and Wildlife Service's (USFWS) *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000). These protocols involve using systematic field techniques in all habitats in the study area to ensure thorough coverage of potential impact areas. The biologists covered the entire study area, giving special attention to the habitats with greater potential for containing occurrences of target plant species. The biologist visited a reference population of Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*) present within HFRP on May 15, 2017, before the special-status plant surveys were conducted, to confirm that the species was flowering, to familiarize themselves with the distinguishing characteristics and habitat requirements of this species, and to observe typical associated species. All plants encountered during the special-status plant surveys were identified to the highest taxonomic level necessary for a rare plant determination. Nomenclature used follows the *Jepson Manual: Vascular Plants of California* (Jepson Manual) (Baldwin et al. 2012).

## RESULTS

### Habitats

Placer County is within the California Floristic Province, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The elevation of the study area ranges from approximately 600 to 1,600 feet above mean sea level. The project area has few roads and includes expansive undeveloped areas within the Coon Creek and Bear River watersheds.

The project area is dominated by blue oak woodlands interspersed with blue oak foothill pine woodland, valley foothill riparian woodland, and mixed chaparral. Annual grasslands are present in the openings of the woodland and chaparral communities.

Blue oak and blue oak foothill pine woodlands are characterized by an open to closed canopy dominated by regularly spaced blue oaks (*Quercus douglasii*). Valley oak (*Q. lobata*), coast live oak (*Q. agrifolia*), interior live oak (*Q. wislizeni*), black oak (*Q. kellogii*), canyon live oak (*Q. chrysolepis*), and foothill pine (*Pinus sabiniana*) are also present. Some pockets of blue oak foothill pine woodland also include ponderosa pine (*Pinus ponderosa*). The shrub layer is typically sparse to intermittent, with scattered toyon (*Heteromeles arbutifolia*), California buckeye (*Aesculus californica*), hoary coffeeberry (*Rhamnus tomentella*), poison oak (*Toxicodendron diversilobum*), and chaparral honeysuckle (*Lonicera interrupta*). The understory is characterized by a cover of nonnative grasses and seasonal forbs, such as bromes (*Bromus diandrus* and *B. hordeaceus*), wild oat (*Avena fatua*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), medusahead (*Taeniatherum caput-medusae*), cut-leaved geranium (*Geranium dissectum*), and Italian thistle (*Carduus pycnocephalus*).

The riparian corridors along Coon Creek and other small tributaries are dominated by valley oak (*Quercus lobata*), red willow (*Salix laevigata*), and white alder (*Alnus rhombifolia*). Understory dominants include patches of Himalayan blackberry (*Rubus discolor*), poison oak, buttonwillow (*Cephalanthus occidentalis*), and Spanish broom (*Spartium junceum*). Locally dominant species include arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), wild grape (*Vitis californicus*), horsetails (*Equisetum telmateia* ssp. *braunii*), skunkbrush (*Rhus trilobata*), rushes (*Juncus* sp.), and sedges (*Carex* sp.). Deer grass (*Muhlenbergia rigens*) and California melic (*Melica californica*) are the dominant native perennial grasses.

Mixed chaparral habitat within the project area is limited. Dominant species found within this habitat type include poison oak, chaparral honeysuckle, holly-leaf redberry, toyon, buckbrush (*Ceanothus cuneatus*), and coffeeberries (*Rhamnus tomentella* ssp. *tomentella*). Other species observed include gooseberries (*Ribes* sp.) and serviceberries (*Amelanchier* sp.). Common herbaceous species include Chinese-houses (*Collinsia heterophylla*), foothill collinsia (*Collinsia sparsiflora* var. *collina*), sessile wood-rush (*Luzula comosa* var. *subsessilis*), Henderson's shooting-star (*Dodecatheon hendersonii*), and California melic. A complete list of plant species observed during the surveys is provided in Appendix A.

### Special-Status Plant Species

Searches of the CNPS and CNDDB databases identified 22 special-status plant species occurring in the vicinity of the study area, and one species not reported in the database queries was documented within the Spears Ranch portion of the HFRP in a 2007 rare plant survey (Placer County 2007). The following 20 species were identified as having no potential to occur in the study area because they are either restricted to soils and habitat types that do not exist within the study area or they are only found at elevations lower than those found in the study area:

- Stebbin's morning glory (*Calystegia stebbinsii*), chapparal sedge (*Carex xerophila*), Pine Hill ceanothus (*Ceanothus roderickii*), El Dorado bedstraw (*Galium californicum* ssp*. sierrae*), Red Hills soap root (*Chlorogalum grandiflorum*), and Layne's ragwort (*Packera layneae*) are restricted to gabrro or serpentine soils, which do not occur in the study area.

- Bisbee Peak rush-rose (*Crocanthemum suffrutescens*) and El Dorado County mule ears (*Wyethia reticulata*) are restricted to gabbro soils, which do not occur in the study area, and are not known to occur in Placer County.

- Jepson's onion (*Allium jepsonii*) and big-scale balsamroot (*Balsamorhiza macrolepis*) are found on serpentine soils, which do not occur in the study area.

- Dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Red Bluff dwarf rush (*J. leiospermus* var. *leiospermus*), legenere (*Legenere limosa*), and pincushion navarretia (*Navarretia myersii* spp. *myersii*) occur in vernal pool habitats, which do not occur in the study area.

- Hispid bird's-beak (*Chloropyron molle* ssp. *hispidum)* is known to occur in Placer County only in damp alkaline meadows at an elevation of about 150 feet. These conditions are not present in the study area.

- Butte County fritillary (*Fritillaria eastwoodiae*) occurs primarily in the northern foothills of the Sierra Nevada and Cascade Range. The southernmost known occurrences are found north of the project area in Yuba County, where they occur at higher elevations in ponderosa pine forest.

- Dubious pea (*Lathyrus sulphureus* var. *argillaceus*) is not known to occur in Placer County. A single CNDDB occurrence in Placer County is not confirmed, has no record date, and the occurrence rank is unknown. Variety *argillaceu*s is not recognized in the Jepson Manual, and the elevation range for species *Lathyrus sulphureus* is outside the elevation range of the study area.

- Brazilian watermeal (*Wolffia brasiliensis*) is not known to occur above elevations of 330 feet, which is outside of the elevation range of the study area.

Three special-status plant species have the potential to occur within the study area and are the focus of these targeted surveys; Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*, Sierra monardella (*Monardella candicans*), and oval-leaved viburnum (*Viburnum ellipticum*). Table 1 summarizes the regulatory status, habitat and blooming period, and potential for occurrence in the project area for Brandegee's clarkia, Sierra monardella, and oval-leaved viburnum. Habitat and elevation range information for these species was obtained from the CNPS Inventory and the Jepson Manual.

***Brandegee's Clarkia***

Brandegee's clarkia, a member of the evening primrose family, is a CNPS List 1B plant. Brandegee's clarkia is found in the central Sierra Nevada foothills between 804 and 2,904 feet above mean sea level in chaparral and woodland habitats, often on road-cuts. It is an annual herb with rose-pink flowers that blooms from May to July. The feature that distinguishes this subspecies from the other two subspecies of *Clarkia biloba* is the length of the notch at the tip of the petal. In Brandegee's clarkia, the notch is less than one-fifth of the petal length.

**Table 1. Special-Status Plants with Potential to Occur in the Project Area**

| Species | Status [1] | | | Habitat and Blooming Period | Potential for Occurrence |
|---|---|---|---|---|---|
| | USFWS | CDFW | CRPR | | |
| **Plants** | | | | | |
| Brandegee's clarkia *Clarkia biloba* ssp. *brandegeeae* | — | — | 4.2 | Chaparral, cismontane woodland; often in road cuts; 700 to 3,000 feet elevation; blooms May to July | **Known to occur:** This species was identified in the project area during the focused botanical surveys, but was not detected in the study area. |
| Sierra monardella *Monardella candicans* | — | — | 4 | — Chaparral, lower montaine coniferous forest, cismontane, woodland, 500 to 2,600 feet elevation, blooms April to July | **Known to occur:** This species was identified in the project area during the focused botanical surveys, but was not detected in the study area. |
| Oval-leaved viburnum *Viburnum ellipticum* | — | — | 2 | Chaparral, cismontane woodland or lower montane coniferous forest; 600 to 4,000 feet elevation; blooms May to June | **Could occur:** The majority of the survey area is below the elevation range of this species where it occurs in the central foothills, but associated species and potential habitat do occur on the site; not found during focused special-status plant surveys. |

Sources: Baldwin et al. 2012; CDFW 2017; CNPS 2017.
Notes:
[1] California Native Plant Society's California Rare Plant Ranks
1A = Plants presumed extinct in California
1B = Plants rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California, but more common elsewhere
3 = Plants about which we need more information - A review list
4 = Plants of Limited Distribution - A watch list

Threat Ranks:
0.1 = Seriously endangered in California (>80% of occurrences are threatened and/or high degree and immediacy of threat)
0.2 = Fairly endangered in California (20%–80% of occurrences are threatened)
0.3 = Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
— = no status
CRPR = California Rare Plant Ranks

Reference populations of Brandegee's clarkia known to occur in the HFRP to the east of the corridor study area were visited on the second day of the survey to ensure that the species was blooming and identifiable. It was confirmed that the species had been blooming over the previous 2 weeks and would have been blooming during the both survey dates. Populations of Brandegee's clarkia were abundantly distributed throughout the HFRP on north-facing slopes in openings in the black oak woodlands and along recently created trails. Brandegee's clarkia was most typically found on steep, north-facing slopes in the shade and in openings of black oak and foothill pine oak woodland, where common associate species include hedgehog dogtail (*Cynosorus echinatus*), field hedge parsley (*Torilis arvensis*), poison oak, blue wild rye (*Elymus glaucus*), and white globe lily (*Calochortus albus*).

No occurrences of Brandegee's clarkia were encountered within the study area during the special-status plant surveys.

### *Sierra Monardella*

Sierra monardella, a member of the mint family, is a CNPS List 4 plant. It is a small, annual plant with half-inch heads of white flowers that bloom from April to July. Sierra monardella grows on sandy or gravelly soils in oak woodland, chaparral, and ponderosa pine forest throughout the Sierra Nevada foothills.

A known occurrence of Sierra monardella was observed on the second day of the survey within HFRP in openings of foothill pine-interior live oak woodland on the north side of Coon Creek, outside of the study area. Populations of Sierra monardella in this portion of the park are small, consisting of tens of individuals occurring in moderately dense annual grassland on a low-gradient, southwest-facing terrace above the creek. Associate species included species typical of the annual grassland and surrounding woodlands such as bromes , lupines (*Lupinus* sp.), smooth cat's ears (*Hypochaeris glabra*), four spot (*Clarkia purpurea*), Ithuriel's spear (*Triteleia laxa*), needleleaf navarretia (*Navarretia intertexta*), and Elegant harvest brodiaea (*Brodiaea elegans*).

No occurrences of Sierra monardella were encountered within the study area during the special-status plant survey.

***Oval-leaved viburnum***

Oval-leaved viburnum, a member of the honeysuckle family, is a CNPS List 2 species. It is a small- to medium-sized shrub with flat-topped, 1-inch wide, white inflorescences that bloom from May to June. Oval-leaved viburnum grows in chaparral and ponderosa pine forest, generally on north-facing slopes in the northern and central Sierra Nevada foothills and in northwestern California. Where this species occurs in the Sierra Nevada foothills, oval-leaved viburnum is typically found at higher elevations (1,100 to 3,650 feet) than at the study area. Associated species and potential habitat occur in the study area; however, the majority of the project area is below the elevation range of this species, and no populations of oval-leaved viburnum are known to occur in HFRP.

No occurrences of oval-leaved viburnum were encountered within the study area during the special-status plant surveys. The surveys were conducted when oval-leaved viburnum would have been blooming and apparent if it were present.

## CONCLUSION

No populations of special-status plant species were identified during the special-status plant surveys conducted within the study area. Brandegee's clarkia and Sierra monardella were observed within the Hidden Falls Regional Park during the special-status plant surveys, but these species were not detected within or near the study area.

If you have any questions or require additional information, please do not hesitate to call us at (916) 414-5800.

Sincerely,

Kristin Asmus
Senior Botanist

cc: Susan Sanders, AECOM
Petra Unger, AECOM
Ken Koch, AECOM

Attachments:
Appendix A: Exhibits
Appendix B: Plant Species Observed Within the Surveyed Area

## REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California*. 2d ed. Berkeley, CA: University of California Press.

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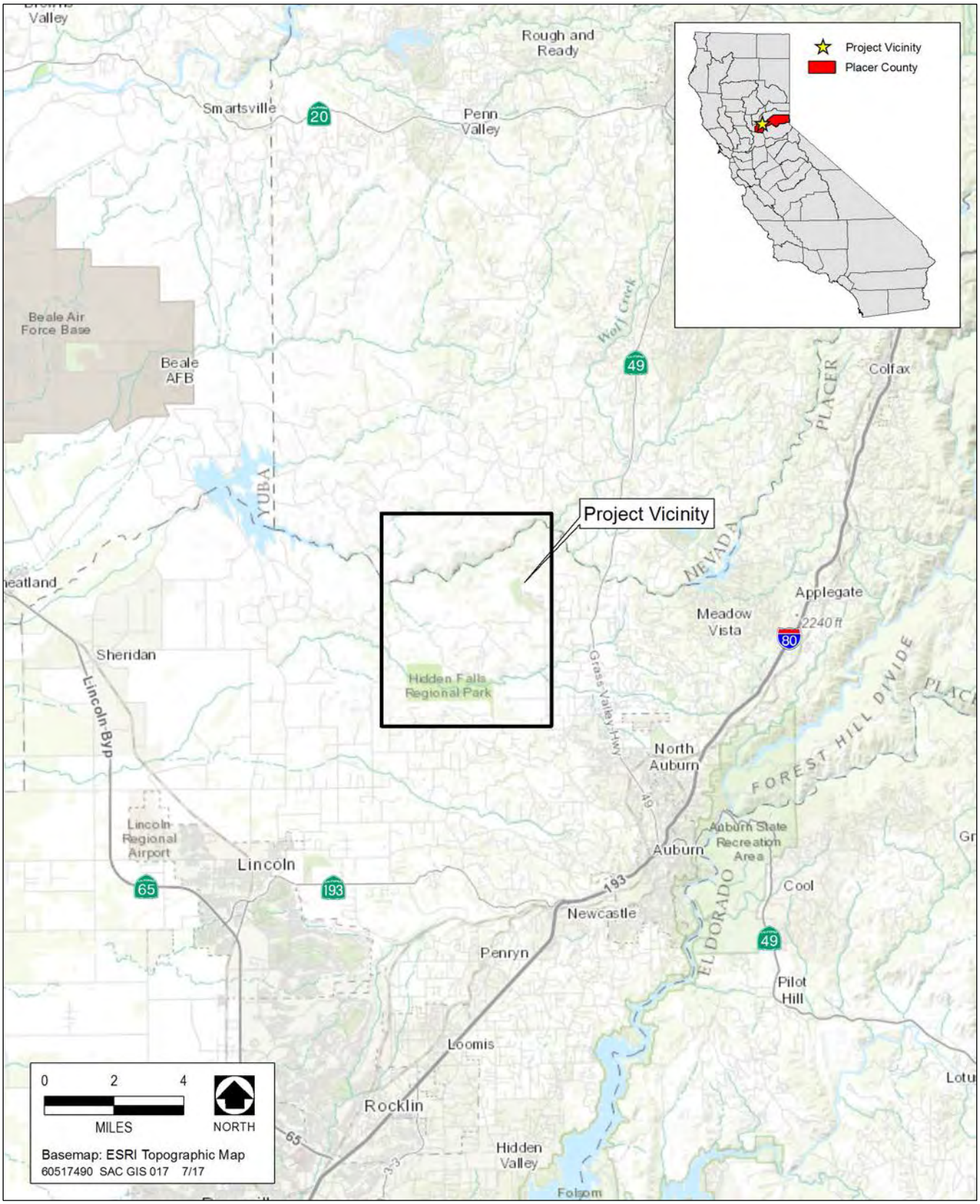
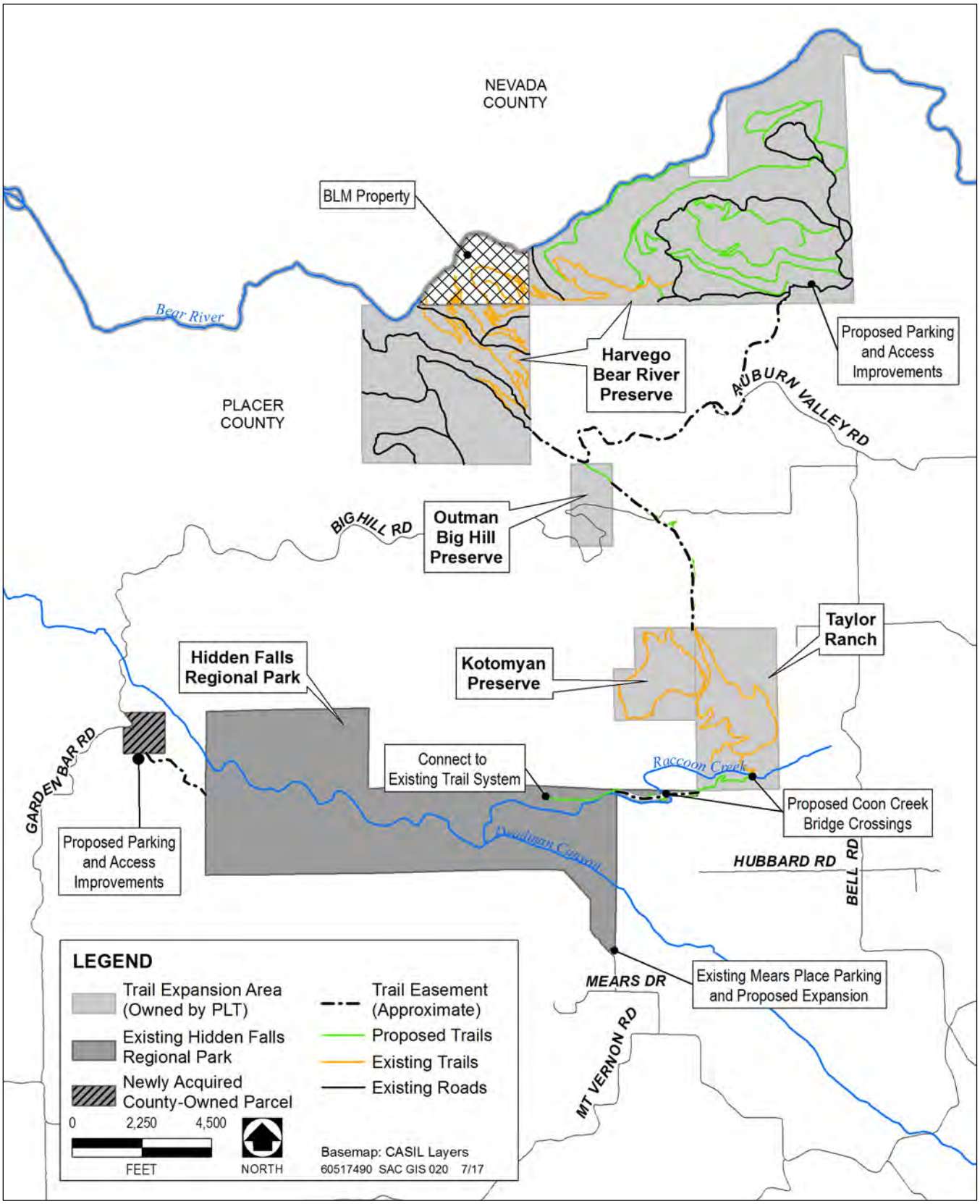
# APPENDIX A

Exhibits




Source: AECOM 2017.

**Exhibit 1. Project Area and Vicinity**




Source: AECOM 2017.

**Exhibit 2. Project Map**

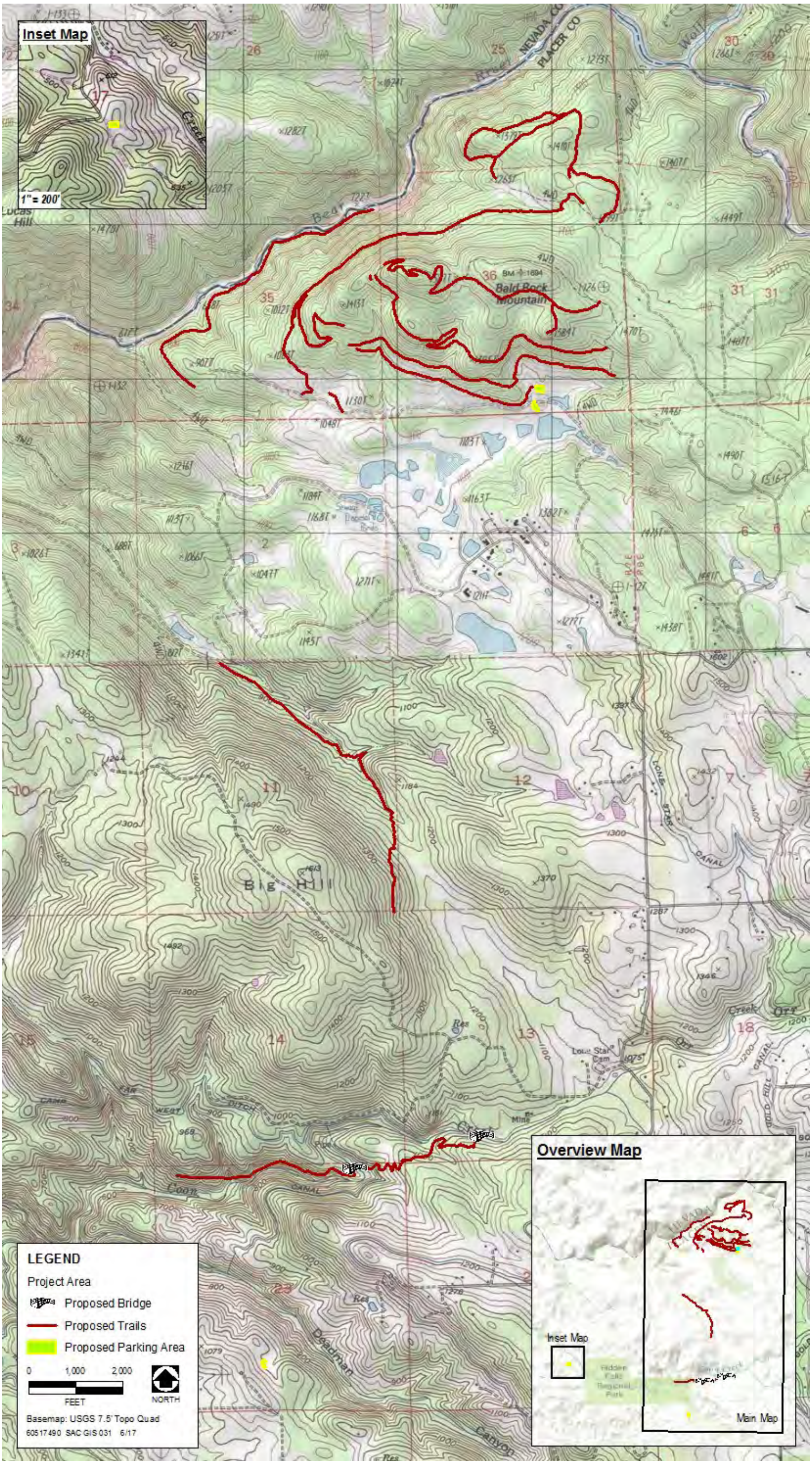



**Exhibit 3. Study Area Locations**

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# APPENDIX B

## Plant Species Observed

| Scientific Name | Common Name |
|---|---|
| *Achillea millefolium* var. *millefolium* | white yarrow |
| *Achyrachaena mollis* | blow wives |
| *Acmispon parviflorus* | hill lotus |
| *Adiantum jordanii* | California maidenhair fern |
| *Aesculus californica* | California buckeye |
| *Aira caryophyllea* | silver hairgrass |
| *Allium peninsulare* | Mexicali onion |
| *Alnus rhombifolia* | white alder |
| *Amsinckia menziesii* var. *intermedia* | fiddleneck |
| *Artemisia douglasiana* | mugwort |
| *Asclepias cordifolia* | purple milkweed |
| *Avena barbata* | slender wild oat |
| *Avena fatua* | wild oat |
| *Baccharis pilularis* | coyote brush |
| *Bellardia trixago* | Mediterranean linseed |
| *Briza minor* | little quaking grass |
| *Brodiaea elegans* ssp. *elegans* | elegant harvest brodiaea |
| *Bromus carinatus* var. *carinatus* | California brome |
| *Bromus diandrus* | ripgut brome |
| *Bromus hordeaceus* | soft chess |
| *Bromus laevipes* | woodland brome |
| *Bromus madritensis* var. *rubens* | foxtail chess |
| *Calochortus albus* | white globelily |
| *Calochortus superbus* | yellow Mariposa lily |
| *Calycadenia multiglandulosa* | white rosin weed |
| *Calystegia occidentalis* | western morning-glory |
| *Carduus pycnocephalus* | Italian thistle |
| *Castilleja affinis* ssp. *Affinis* | paintbrush |
| *Ceanothus integerrimus* | deer brush |
| *Ceanothus leucodermis* | chapparal whitethorn |
| *Centaurea melitensis* | Maltese star-thistle |
| *Centaurea solstitialis* | yellow star-thistle |
| *Cephalanthus occidentalis* | buttonbush |
| *Cercis occidentalis* | Western redbud |
| *Chlorogalum pomeridianum var. pomeridianum* | common soap plant |
| *Clarkia purpurea* ssp. *purpurea* | purple clarkia |
| *Clarkia purpurea* ssp. *quadrivulnera* | four-spot |
| *Clarkia unguiculata* | elegant clarkia |
| *Claytonia perfoliata* | miner's lettuce |
| *Clematis lasiantha* | virgin’s bower |
| *Croton setiger* | turkey-mullein |
| *Cynodon dactylon* | Bermuda grass |
| *Cynosurus echinatus* | hedgehog dogtail |
| *Cyperus eragrostis* | umbrella-sedge |
| *Dactylis glomerata* | orchard grass |
| *Daucus pusillus* | rattlesnake weed |
| *Dichelostemma capitatum* | blue dicks |
| *Dichelostemma volubile* | snake lily |

| Scientific Name | Common Name |
|---|---|
| *Dudleya cymosa* ssp. *cymosa* | spreading live-forever |
| *Eleocharis macrostachya* | creeping spikerush |
| *Elymus caput-medusae* | medusa head |
| *Elymus glaucus* | blue wild rye |
| *Erigeron canadensis* | horseweed |
| *Eriophyllum lanatum* | woolly sunflower |
| *Erodium botrys* | broadleaf filaree |
| *Erodium cicutarium* | red-stem filaree |
| *Eschscholzia caespitosa* | foothill poppy |
| *Eschscholzia californica* | California poppy |
| *Festuca bromoides* | brome fescue |
| *Festuca myuros* | rattail sixweeks grass |
| *Festuca perennis* | rye grass |
| *Ficus carica* | edible fig |
| *Galium aparine* | bedstraw |
| *Galium murale* | yellow wall bedstraw |
| *Geranium dissectum* | cut-leaved geranium |
| *Geranium molle* | dove's foot geranium |
| *Gilia capitata* | blue head gilia |
| *Heteromeles arbutifolia* | toyon |
| *Hordeum murinum* var. *leporinum* | hare barley |
| *Hypericum perfoliatum* | St. Johnswort |
| *Hypochaeris glabra* | smooth cat's-ear |
| *Hypochaeris radicata* | rough cat's-ear |
| *Iris pseudacorus* | pale yellow iris |
| *Juncus bufonius* | toad rush |
| *Juncus effusus* | common rush |
| *Keckiella brevifolia* | gaping keckielia |
| *Lactuca serriola* | prickly lettuce |
| *Lepidium nitidum* | common peppergrass |
| *Leptosiphon* sp. | leptosiphon |
| *Linum bienne* | common flax |
| *Lonicera hispidula* | hairy honeysuckle |
| *Lonicera interrupta* | chaparral honeysuckle |
| *Lupinus albifrons* | silver bush lupine |
| *Lupinus nanus* | sky lupine |
| *Lysimachia arvensis* | scarlet pimpernel |
| *Madia elegans* ssp. *vernalis* | common tarweed |
| *Madia glomerata* | mountain tarweed |
| *Matricaria discoidea* | pineapple weed |
| *Mentha arvensis* | field mint |
| *Micropus californicus* var. *californicus* | cottontop |
| *Microseris acuminata* | microseris |
| *Microsteris gracilis* | slender phlox |
| *Mimulus cardinalis* | cardinal monkey flower |
| *Mimulus guttatus* | seep monkeyflower |
| *Monardella odoratissima* | coyote mint |
| *Nasturtium officinale* | watercress |

| Scientific Name | Common Name |
|---|---|
| *Navarretia intertexta* | needleleaved navarretia |
| *Navarretia pubescens* | downy pincushionplant |
| *Navarretia tagetina* | marigold navarretia |
| *Osmorhiza berteroi* | sweetcicely |
| *Paspalum distichum* | knot grass |
| *Pentagramma triangularis* | goldenback fern |
| *Perideridia kelloggii* | squawroot |
| *Persicaria amphibia* | water smartweed |
| *Petrorhagia dubia* | grass pink |
| *Pinus sabiniana* | foothill pine |
| *Plagiobothrys stipitatus* var. *micranthus* | stalked popcorn flower |
| *Plantago lanceolata* | English plantain |
| *Polystichum munitum* | western swordfern |
| *Psilocarphus tenellus* | slender woolly-marbles |
| *Quercus berberidifolia* | scrub oak |
| *Quercus douglasii* | blue oak |
| *Quercus kelloggii* | black oak |
| *Quercus lobata* | valley Oak |
| *Quercus wislizeni* | interior live oak |
| *Ranunculus californicus* | California buttercup |
| *Rhamnus ilicifolia* | hollyleaf redberry |
| *Rhamnus tomentella* | hoary coffeeberry |
| *Ribes* sp. | gooseberry |
| *Rubus armeniacus* | Himalayan blackberry |
| *Rumex crispus* | curly dock |
| *Rumex pulcher* | fiddledock |
| *Salix exigua* | sandbar willow |
| *Salix laevigata* | red willow |
| *Salix lasiandra* var. *lasiandra* | Pacific willow |
| *Salix lasiolepis* | arroyo willow |
| *Scutellaria californica* | California skullcap |
| *Senecio vulgare* | old-man-in-the-spring |
| *Sherardia arvensis* | field madder |
| *Sidalcea* sp. | checkerbloom |
| *Silybum marianum* | blessed milkthistle |
| *Sisymbrium officinale* | hedge mustard |
| *Sisyrhinchium bellum* | blue-eyed grass |
| *Solanum* sp. | nightshade |
| *Stachys albens* | white hedge nettle |
| *Stellaria media* | common chickweed |
| *Symphoricarpos alba* var. *laevigatus* | snowberry |
| *Symphoricarpos mollis* | creeping snowberry |
| *Torilis arvensis* | field hedge parsley |
| *Toxicodendron diversilobum* | poison oak |
| *Tragopogon dubius* ssp. *dubius* | yellow salsify |
| *Trifolium dubium* | little hop clover |
| *Trifolium fragiferum* | strawberry clover |
| *Trifolium hirtum* | red clover |

| Scientific Name | Common Name |
|---|---|
| *Trifolium subterraneum* | subterranean Clover |
| *Trifolium willdenovii* | tomcat clover |
| *Triphysaria versicolor* ssp. *faucibarbata* | yellow owl's-clover |
| *Triteleia ixioides* | golden brodiaea |
| *Triteleia laxa* | Ithuriel's spear |
| *Tritieleia hyacinthina* | white brodiaea |
| *Typha angustifolia* | narrow-leaf cattail |
| *Urtica dioica* | stinging nettle |
| *Verbena bonariensis* | South American vervain |
| *Veronica peregrina* | neckweed |
| *Vicia sativa* | spring vetch |
| *Vitis californica* | California grape |
| *Wyethia angustifolia* | narrowleaf mule ears |
| *Zeltnera muehlenbergii* | Monterey centaury |

Source: AECOM 2017.

# Habitat Assessment for Special-Status Wildlife

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

September 8, 2017

Lisa Carnahan, Parks Planner
Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603

**Subject: Habitat Assessment for Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project, Placer County, California**

Dear Ms. Carnahan:

Placer County (County) opened the 1,200-acre Hidden Falls Regional Park (HFRP) in 2013. HFRP has approximately 30 miles of trails and two waterfall overlooks, and its popularity and usage has grown rapidly. The HFRP project was described and evaluated in a California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) published by the County in 2009 (EDAW/AECOM 2009) and certified in January 2010.

The County is currently proposing to expand the HFRP trail network onto additional lands owned by the Placer Land Trust (PLT), where the County holds trail easement rights, and also onto land owned by the County. The County will prepare a Subsequent EIR (SEIR) pursuant to the State CEQA Guidelines Section 15162 to describe and evaluate the potential environmental impacts of developing the proposed new trails and access areas (proposed project).

This letter report summarizes the methods and results of the biological surveys conducted in the proposed trail network expansion area (study area). These surveys consisted of reconnaissance-level wildlife surveys to assess potential habitat for special-status wildlife species. Special-status plant species and aquatic resources are addressed in separate reports.

## PROJECT LOCATION AND STUDY AREA DESCRIPTION

The project area, which consists of the HFRP and the proposed trail expansion study area, is in western Placer County, south of the Bear River, approximately 40 miles northeast of Sacramento (Exhibit 1, Appendix A). HFRP, which encompasses approximately 1,200 acres in the Sierra Nevada foothills, consists of the properties formerly known as the Spears Ranch and Didion Ranch. The existing park has two access points, with a parking area at Mears Place and an area for a future parking lot off of Garden Bar Road.

Exhibit 2 (Appendix A) shows the existing regional park, the recently acquired parcel off of Garden Bar Road, and the boundaries of the proposed trail network expansion areas. Most of the proposed trail expansion areas are north and northeast of the existing park; they consist of the areas known as Taylor Ranch (321 acres) and Harvego Bear River Preserve (1,773 acres) and privately owned parcels with trail easements, such as Liberty Ranch (313 acres). Harvego Bear River Preserve has a working cattle ranch, an extensive network of existing ranch roads, and some trails built by the Placer Land Trust. Liberty Ranch is a cattle ranch currently under Williamson Act contract; it has no existing trails. Trails will also cross the Kotomyan Big Hill Preserve (160 acres) and Outman Big Hill Preserve (80 acres). The Outman Big Hill Preserve has no existing trails. Trail connections are also proposed from a recently acquired parcel off of Garden Bar Road to the western end of the existing park and from the eastern end of the park to the Taylor Ranch, through parcels either owned or held in

easement by Placer County. The U.S. Bureau of Land Management (BLM) owns the area in between the two portions of the Harvego Bear River Preserve and south of the Bear River. Two bridges will be constructed on Coon Creek as part of the proposed trail system. As shown on Exhibit 2, the majority of the trail expansion area is between the existing regional park and the Bear River to the north. Access is currently constrained by limited roadways and surrounding private property. Entry to these areas is currently limited to guided tours led by the PLT. The County has trail easement rights within these properties. The lands adjacent to these areas consist of rolling hills and are primarily private lands used for agriculture, grazing, and rural residences.

## METHODS

Before the site surveys were conducted, AECOM biologists searched the following sources for records of special-status wildlife occurring within a nine-quadrangle area containing and surrounding the study area: California Natural Diversity Database (CNDDB 2017) and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation project planning tool (USFWS 2017).

AECOM biologists also referenced the following background documents from PLT: 2011-2013 Management Plan for Harvego Bear River Preserve (PLT 2011), Wetland Delineation Report for Bruin Ranch (PLT 2010), Harvego Bear River Preserve Inventory and Improved Forest Management Activities Plan (PLT 2012), Management Plan for Kotomyan Big Hill Preserve (PLT 2007a), Management Plan for Liberty Ranch Big Hill Preserve (PLT 2007b), Baseline Documentation Report for Liberty Ranch Big Hill Preserve (PLT 2007c), Baseline Documentation Report for Outman Big Hill Preserve (PLT 2013), Baseline Documentation Report for Taylor Ranch (PLT 2007d), Management Plan for Taylor Ranch (PLT 2007e), the Hidden Falls Regional Park Project Environmental Impact Report (Placer County 2009), and the Hidden Falls Regional Park Preliminary Delineation of Waters of the United States, Including Wetlands (Placer County 2008).

AECOM biologists Tammie Beyerl and Pamela Brillante conducted pedestrian surveys in the study area, which consists of the proposed trail system alignment plus 50 feet on either side of the trail system alignment, stream crossing locations, staging areas, and parking areas (Exhibit 3, Appendix A). In locations where no trail exists, the trail width was assumed to be 4 feet, and in locations where the trail would coincide with an existing road, the trail width was assumed to be the width of the road. Surveys were conducted on December 6, 7, 13, and 14, 2016, and May 30 and 31 and June 1, 2017. During the surveys, the weather conditions were partly cloudy to overcast, with temperatures in the range of mid-40 degrees to mid-50 degrees Fahrenheit and winds of 2 to 10 miles per hour in December 2016 and sunny with temperatures in the range of 70 degrees to 80 degrees Fahrenheit and winds of 4 to 15 miles per hour in May and June 2017.

Habitats in the study area were assessed to determine their potential to support special-status wildlife species at or near the study area. The biologists surveyed the forest canopy and trees at and within 200 feet from the study area boundaries to search for suitable raptor and passerine nesting sites. Habitat for special-status amphibians and reptiles was surveyed by visually scanning the water features that cross the study area for appropriate water depth and flow rate, the substrates along the bottom of the water features, bank structure, and vegetation in the water features and along the banks. The habitat survey for meso-carnivores such as foxes and ringtails was focused on an assessment of potential burrow or denning habitat within the study area. Aquatic features were also identified and delineated, the data are presented in a separate report. Floristic inventory surveys occurred concurrently with the May and June 2017 surveys; the results are presented in a separate report.

## RESULTS

### Habitat

Placer County is within the California Floristic Province, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The elevation of the study area ranges from approximately 600 to 1,600 feet above mean sea level. The project area has few roads and includes expansive undeveloped areas within the Coon Creek and Bear River watersheds.

The project area is generally composed of gentle rolling to steep hills that are mostly covered by oak woodlands interspersed with annual grassland and riparian corridors. The habitat within the project area can be described more specifically by species composition according to the California Wildlife Habitat Relationships (CWHR) system (CDFW 2016). The following habitat types are found within the project area: blue oak woodland and blue oak-foothill pine woodland, interspersed with annual grassland, valley foothill riparian, and mixed chaparral.

Blue oak woodland is found throughout the entire project area; this habitat type is dominated by blue oak (*Quesrcus douglasii*) with a generally sparse shrub layer consisting of poison oak (*Toxicodendron diversilobum*), chaparral honeysuckle (*Lonicera interrupta*), and holly-leaf redberry (*Rhamnus ilicifolia*) that is generally restricted to rock outcrops. The herbaceous layer in the blue oak woodland is composed of nonnative annual grasses and forbs, with some widely scattered native perennial grasses.

Blue oak foothill pine woodland is also common throughout the project area. The dominant species in these stands are blue oaks, interior live oak (*Quercus wislizenii*), foothill pine (*Pinus sabiniana*), black oak (*Quercus kelloggii*), and canyon live oak (*Quercus chrysolepis*) and some pockets of this habitat also include ponderosa pine (*Pinus ponderosa*). The understory species include shrubs such as California poison oak, California buckeye (*Aesculus californica*), toyon (*Heteromeles arbutifolia*), and hoary coffeeberry (*Rhamnus tomentella*). Similar to blue oak woodland, the herbaceous layer is continuous and dense, with exposed soil generally limited to areas of disturbance from grazing or farm equipment; the layer is composed of annual grasses and forbs. This habitat type also has some open areas with an herbaceous layer that is less dense than it is in blue oak woodland and with a higher number of native species.

Rock outcrops are an important component of the blue oak woodland and blue oak foothill pine woodland habitats. Plant species associated with the rock outcrops include coyote-mint (*Monardella* sp.), small-flowered miner's lettuce (*Claytonia parviflora* ssp. *parviflora*), Bolander's woodlandstar (*Lithophragma bolanderi*), pterostegia (*Pterostegia drymarioides*), Pellaea ferns (*Pellaea* sp.), canyon dudleya (*Dudleya cymosa*), and phacelias (*Phacelia* sp.).

The CWHR system defines annual grassland habitats as open grasslands composed primarily of annual plant species, many of which also occur as understory plants in oak woodlands (CWHR 2016). Within the project area, annual grassland is dominated by annual grasses such as Mediterranean barley (*Hordeum marinum*), ripgut brome (*Bromus diandrus*), and native and nonnative forbs, including subterraneum clover (*Trifolium subterraneum*), filarees (*Erodium* sp.), rose clover (*Trifolium hirtum*), popcorm flower (*Plagiobothrys* sp.), johnnytuck (*Triphysaria eriantha*), and Douglas' violet (*Viola douglasii*). Purple needle grass (*Nassella pulchra*) and blue wild rye (*Elymus glaucus*) are the dominant native perennial grasses.

Valley foothill riparian habitat is found within the project area along Coon Creek and other smaller tributaries. This habitat is dominated by an overstory of valley oak (*Quercus lobata*), white alder (*Alnus rhombifolia*), red willow (*Salix laevigata*), and interior live oak. Understory dominants include patches of Himalayan blackberry (*Rubus discolor*), poison oak, buttonwillow (*Cephalanthus*

*occidentalis*), and Spanish broom (*Spartium junceum*). Locally dominant species include arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), wild grape (*Vitis californicus*), horsetails (*Equisetum telmateia* ssp. *braunii*), skunkbrush (*Rhus trilobata*), rushes (*Juncus* sp.), and sedges (*Carex* sp.). Deer grass (*Muhlenbergia rigens*) and California melic (*Melica californica*) are the dominant native perennial grasses.

Mixed chaparral habitat within the project area is limited. Dominant species found within this habitat type include poison oak, chaparral honeysuckle, holly-leaf redberry, toyon , buckbrush (*Ceanothus cuneatus*), and coffeeberries. Other species observed include common herbaceous species such as gooseberries (*Ribes* sp.) and serviceberries (*Amelanchier* sp.), Chinese-houses (*Collinsia heterophylla*), foothill collinsia (*Collinsia sparsiflora* var. *collina*), sessile wood-rush (*Luzula comosa* var. *subsessilis*), Henderson's shooting-star (*Dodecatheon hendersonii*), and California melic.

The project area is within the Coon Creek and Bear River watersheds. Coon Creek flows across Taylor Ranch and into the HFRP and crosses the project area in several locations. The Bear River abuts most of the northern boundary of the Harvego Bear River Preserve. Coon Creek within the west end of the project area is a braided channel with vegetated in-stream gravel bars. It is confined by cut banks on a gentle slope and is dominated by boulders and cobble. Coon Creek crosses the project area again farther east; in this area, Coon Creek is dominated by a bedrock channel with several cascades. The segment of Coon Creek at the easternmost proposed bridge crossing is flat and confined by a gentle slope on the north side and a moderate slope on the south side. The creek contains a main channel and a side channel dominated by boulders and cobble and separated by a cobble bar. However, past the proposed bridge this segment of the creek plunges approximately 75 feet downstream, outside of the project area.

The project area also has several perennial, intermittent, and ephemeral drainages that are tributary to Coon Creek and Bear River. The drainages within the project area vary in characteristics: some have gently sloping banks, but others have moderate to moderately steep cut banks. The drainages are generally dominated by cobble and boulder substrates, but some drainages mostly contain a bedrock channel. In addition, some drainages contain cascades, pools, braided channels, and/or cobble bars. The ordinary high water mark (OHWM) of the drainages is also variable; it ranges from 2 to 30 feet. The wetted channel averaged 4 to 5 feet wide and 10 to 24 inches deep at the time of the December 2016 surveys. Riparian and sometimes wetland vegetation occurs along most of the drainages within the project area, including Coon Creek, and some drainages have riparian vegetation rooted within the OHWM.

**Special-Status Wildlife Species**

Special-status wildlife species include animals in the following categories:

- Species listed by the State of California (State) or the federal government as endangered, threatened, or rare
- Candidates for State or federal listing as endangered or threatened
- Taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations Section 15380 of the CEQA Guidelines
- Species identified by the California Department of Fish and Wildlife (CDFW) as species of special concern
- Species listed as fully protected under the California Fish and Game Code

- Species afforded protection under local or regional planning documents

No confirmed special-status species were observed on or adjacent to the study area during the 2016 and 2017 surveys. However, a possible foothill yellow-legged frog (*Rana boylii*) was observed within Coon Creek during the December 2016 survey, though positive identification could not be obtained. In addition, several special-status wildlife species were documented as occurring within HFRP and several of the PLT properties. The database searches and literature review of previously prepared environmental documents identified 30 previously documented or reported special-status wildlife species in the region. Ten of these species known from the region have no potential to occur in the study area because the project area is outside of their elevation or geographical range or because suitable habitat (e.g., vernal pools, open rocky/sandy soil) is not present. For these reasons, the following species were eliminated from further evaluation in this document:

- Western burrowing owl (*Athene cunicularia hypugea*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Swainson's hawk (*Buteo swainsoni*)
- Northern harrier (*Circus cyaneus*)
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
- Delta smelt (*Hypomesus transpacificus)*
- Vernal pool tadpole shrimp (*Lepidurus packardi*)
- Song sparrow ("Modesto" population) (*Melospiza melodia*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Bank swallow (*Riparia riparia*)

Table 1 provides a list of the remaining 20 special-status wildlife species that were determined to have potential to occur in the study area based on the pre-field investigation (database and literature review). Pallid bat (*Antrozous pallidus*) is also included in Table 1 as potentially occurring in the project region based on knowledge about the habitat requirements and distribution of this species.

**Table 1. Special-Status Wildlife Species Potentially Occurring in the Study Area**

| Special-Status Species | Regulatory Status (Federal; State) [1] | Habitat Requirements | Potential for Occurrence in the Study Area [2] |
|---|---|---|---|
| **Amphibians/Reptiles** | | | |
| Northwestern pond turtle<br>*Emys marmorata* | SSC | Inhabits permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes with emergent logs or boulders for basking. Nests in sandy banks along large, slow-moving streams or upland in a variety of soils. | **Known to occur;** surveys conducted in 2005 confirmed presence along Coon Creek. |
| Foothill yellow-legged frog<br>*Rana boylii* | SC | Streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands; sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. Breeding occurs exclusively in streams and rivers and requires cobble-sized substrate for eggs and a minimum of 15 weeks of water for larval development. | **Likely to occur;** suitable aquatic habitat is present at Coon Creek and other drainages with cobble substrate. A possible foothill yellow-legged frog was observed during surveys in December 2016. |

**Table 1. Special-Status Wildlife Species Potentially Occurring in the Study Area**

| Special-Status Species | Regulatory Status (Federal; State)[1] | Habitat Requirements | Potential for Occurrence in the Study Area[2] |
|---|---|---|---|
| California red-legged frog<br>*Rana draytonii* | FT | Sierran populations inhabit still or slow-moving water with deep (generally ≥ 2 ft) pools and emergent or overhanging vegetation. Breeds in wetlands, ponds, lakes, and slow-moving, low-gradient stream reaches. Requires a minimum of 11 to 20 weeks of water for larval development and upland refugia for aestivation if no permanent water is present. | **Not likely to occur;** suitable aquatic habitat or terrestrial non-breeding dispersal habitat is located within and adjacent to the project area. However, the nearest known population of California red-legged frog (one of seven known breeding populations scattered in the Sierra Nevada foothills) is approximately 23 miles from the project site. |
| **Fish** | | | |
| Hardhead<br>*Mylopharadon conocephalus* | SSC | Spawning occurs in pools and side pools of rivers and creeks; juveniles rear in pools of rivers and creeks and in shallow to deeper water of lakes and reservoirs. | **Could occur;** occurs downstream in the lower Sacramento River and may occur along Coon Creek. |
| Central Valley steelhead<br>*Oncorhynchus mykiss* | FT | Requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries and in the Sacramento–San Joaquin River Delta. | **Likely to occur;** surveys conducted in 2005 confirmed presence in Coon Creek within HFRP below waterfalls. Coon Creek within HFRP but outside of the project area is designated critical habitat for this species. |
| Chinook salmon – Central Valley spring-run, fall-run, and late-fall-run evolutionarily significant units (ESU)<br>*Oncorhynchus tshawytscha* | FT, ST | Requires cold, freshwater streams with suitable gravel for spawning; rears in seasonally inundated floodplains, rivers, and tributaries, and in the Sacramento–San Joaquin River Delta. | **Could occur;** surveys conducted in 2005 confirmed presence within Coon Creek approximately 1 mile downstream of HFRP. However, this species is unlikely to pass waterfalls and access the segment of Coon Creek within HFRP under most flow conditions. |
| Sacramento splittail<br>*Pogonichthys macrolepidotus* | SSC | Spawning and juvenile rearing from winter to early summer in shallow weedy areas inundated during seasonal flooding in the lower reaches and flood bypasses of the Sacramento River. | **Could occur;** may occur in Coon Creek but unlikely to pass waterfalls and access the segment of Coon Creek within HFRP under most flow conditions. |
| **Birds** | | | |
| Tricolored blackbird<br>*Agelaius tricolor*<br>(nesting) | SSC, SC | Colonial nester in cattails, bulrush, or blackberries associated with wetland or drainage habitats. Forages in grassland or cropland habitats. | **Could occur;** suitable nesting and foraging habitat present in the vicinity of the project area in marshes along Coon Creek and within Harvego Bear River Preserve (BRP). |
| Grasshopper sparrow<br>*Ammodramus savannarum*<br>(nesting) | SSC | Prefers short- to middle-height, moderately open grasslands with scattered shrubs. | **Could occur;** suitable nesting and foraging habitat is present in vicinity of project area in grasslands with scattered oak trees. |
| Golden eagle<br>*Aquila chrysaetos*<br>(year-round) | FP | Nests on cliffs and in large trees in open areas. Needs open terrain for hunting; grasslands, deserts, savannas, and early successional stages of forest and shrub habitats. | **Known to occur;** suitable habitat occurs within or adjacent to the project area. Golden eagle is known to nest in HFRP and is documented throughout the project area. |

**Table 1. Special-Status Wildlife Species Potentially Occurring in the Study Area**

| Special-Status Species | Regulatory Status (Federal; State)[1] | Habitat Requirements | Potential for Occurrence in the Study Area[2] |
|---|---|---|---|
| Long-eared owl<br>*Asio otus*<br>(nesting) | SSC | Requires dense cover for nesting and open areas for foraging. Nests in closed canopy conifer, oak, riparian, pinyon-juniper, and desert woodlands or open woodlands adjacent to grasslands, meadows, or shrublands. | **Could occur;** suitable nesting and foraging habitat is present in vicinity of the project area. |
| Yellow-breasted chat<br>*Icteria virens*<br>(nesting) | SSC | Forages and nests in riparian thickets of willow and other brushy thickets near streams or other watercourses. | **Known to occur;** suitable nesting and foraging habitat present in vicinity of project area on HFRP and Taylor Ranch along Coon Creek and surrounding freshwater marshes and stock ponds. Observed in HFRP and Taylor Ranch during surveys conducted in 2007–2008. |
| Yellow warbler<br>*Dendroica petechial*<br>(nesting) | SSC | Nests in trees or shrubs, particularly those with spines or thorns. Forages in open country. | **Known to occur;** suitable nesting and foraging habitat present on Harvego BRP property in vicinity of project area. Observed on Harvego BRP during surveys conducted in 2010–2013. |
| White-tailed kite<br>*Elanus leacurus*<br>(nesting) | FP | Nests in riparian corridors along streams and rivers, small woodland patches, or isolated trees in open country and forages in nearby grasslands and fields. | **Could occur;** marginally suitable foraging habitat present in vicinity of the project area in grasslands with scattered oak trees. |
| American peregrine falcon<br>*Falco peregrinus anatum*<br>(nesting) | FP | Nests in a wide variety of habitats, including woodlands, dense coniferous forest, and coastal habitats near wetlands, lakes, or rivers on high cliffs, banks, dunes, or mounds. | **Could occur;** suitable nesting habitat is present in cliffs along Coon Creek. However, closest known occurrence is 8 miles southeast of project area. |
| Loggerhead shrike<br>*Lanius ludovicianus*<br>(nesting) | SSC | Nests in trees or shrubs, particularly those with spines or thorns. Forages in open country. | **Could occur;** suitable nesting and foraging habitat is present in vicinity of project area in grasslands with scattered oak trees. |
| California black rail<br>*Laterallus jamaicensis cotorniculus*<br>(nesting) | ST | Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays; requires dense vegetation for nesting. | **Known to occur;** suitable nesting and foraging habitat present in the vicinity of the project area in marshes along Coon Creek and within Harvego BRP. |
| **Mammals** | | | |
| Pallid bat<br>*Antrozous pallidus* | SSC | Roosts in rocky outcrops, cliffs, crevices, trees, and snags. Forages over water in mixed conifer forests and conifer woodlands. | **Could occur;** likely forages in the project area, and suitable roosting habitat is present within and adjacent to the project area. |
| Ringtail<br>*Bassariscus astutus* | FP | Prefers rocky habitats associated with water, including riparian canyons, caves, and mine shafts. Requires rock crevices, hollow trees, or snags for breeding or denning. | **Known to occur;** suitable habitat occurs within or adjacent to the project area. Ringtail prints were observed within the Harvego BRP during surveys conducted in 2010–2013. |
| Townsend's big-eared bat<br>*Corynorhinus townsendii* | SSC | Has a variety of habitats throughout California, including coniferous forests. Requires caves, mines, tunnels, or other man-made structures. | **Could occur;** likely forages in the project area, and rock crevices within and adjacent to the project area may provide suitable roosting sites. |

**Table 1. Special-Status Wildlife Species Potentially Occurring in the Study Area**

| Special-Status Species | Regulatory Status (Federal; State)[1] | Habitat Requirements | Potential for Occurrence in the Study Area[2] |
|---|---|---|---|
| Western red bat<br>*Lasiurus blossevillii* | SSC | Roosts primarily in trees adjacent to streams, fields, or urban areas. Forages over water edges in open areas of mixed conifer and conifer/woodlands. | **Could occur;** likely forages in the project area, and trees within and adjacent to the project area may provide suitable roosting sites. |

Sources: CNDDB 2017; Placer County 2009; PLT 2007a, 2007b, 2007c, 2007d, 2007e, 2010, 2011, 2012, 2013; USFWS 2017.

Notes

[1] Regulatory status definitions

Federal Endangered Species Act (ESA):
- DPS = Distinct Population Segment
- FC = candidate
- FE = federal endangered
- FT = federal threatened
- PT = proposed threatened

California Endangered Species Act (CESA):
- FP = California fully protected
- SC = State candidate for listing
- SE = California state endangered
- SSC = California Species of Special Concern
- ST = California state threatened

[2] Potential for occurrence definitions
- Not likely to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
- Could occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.
- Likely to occur: Suitable habitat is available and indicators observed that the species might be present.

Six special-status wildlife species are known to occur within or adjacent to the project area. These are northwestern pond turtle (*Emys marmorata)*, golden eagle (*Aquila chrysaetos*), yellow-breasted chat (*Icteria virens*), yellow warbler (*Dendroica petechial*), California black rail (*Laterallus jamaicensis cotorniculus*), and ringtail (*Bassariscus astutus*). In addition, foothill yellow-legged frog is likely to occur in Coon Creek and/or its perennial and intermittent tributaries and to breed within Coon Creek. Central Valley steelhead (*Oncorhynchus mykiss*) and hardhead (*Mylopharadon conocephalus*) could occur within Coon Creek. Potential additional bird species that may nest within or adjacent to the project area include tricolored blackbird (*Agelaius tricolor*), grasshopper sparrow (*Ammodramus savannarum*), long-eared owl (*Asio otus*), white-tailed kite (*Elanus leacurus*), American peregrine falcon (*Falco peregrinus anatum*), loggerhead shrike (*Lanius ludovicianus*), and other migratory birds.

Bat species have the potential to roost and forage within and adjacent to the project area, including three special-status bat species: pallid bat, Townsend's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus blossevillii*).

## CONCLUSIONS AND RECOMMENDATIONS

Suitable habitat is present on or adjacent to the project area for several special-status wildlife species that occur within the Sierra Nevada foothills. The habitat within the study area along the proposed trail alignments and adjacent areas could potentially support these special-status wildlife species, particularly where proposed trails or access areas cross drainages or other aquatic habitat. Drainages and aquatic habitat are afforded specific consideration through Section 1602 of the California Fish and Game Code, Section 404 of the Clean Water Act, and the State's Porter-Cologne Act, and construction in these areas may require a Section 404 permit from the U.S. Army Corps of Engineers, a 401 certification or waiver from the Central Valley Regional Water Quality Control Board, and a Lake and Streambed Alteration Agreement from CDFW. In addition, construction activities within the waters of Coon Creek might require consultation with CDFW, USFWS, and the National Marine Fisheries Service (NMFS) to address potential impacts to listed fish species. These permits and resource agency consultations would include requirements for avoidance and minimization measures

to reduce the potential impacts of trail expansion on aquatic habitats and associated special-status wildlife species potentially occurring within the study area. The following Best Management Practices and other measures provide additional recommendations to avoid or minimize the potential adverse impacts of trail expansion activities on sensitive biological resources that may be present in the study area.

**Best Management Practices to Protect Aquatic Resources**

- Discharge of pollutants into storm drains or watercourses from vehicle and equipment cleaning will be prohibited.
- Maintenance and refueling areas for equipment will be located a minimum of 50 feet from active stream channels in predesignated staging areas, except at an established commercial gas station or vehicle maintenance facility.
- Spill containment kits will be maintained on-site at all times during construction operations and/or staging or fueling of equipment.
- Dust control measures will include the use of water trucks and dust palliatives to control dust in excavation and fill areas and to cover temporary stockpiles when weather conditions warrant such action.
- Coir rolls or straw wattles that do not contain plastic or synthetic monofilament netting will be installed along or at the base of slopes during construction to capture sediment.
- Permanent erosion control measures, such as biofiltration strips and swales to receive stormwater discharges from the highway or other impervious surfaces will be implemented to the maximum extent practicable.
- Access routes and limits of construction will be clearly marked before initiation of construction or grading.
- All equipment will be maintained to prevent leaks of automotive fluids, such as gasoline, oils, or solvents, and a spill response plan will be prepared.
- Hazardous materials, such as fuels, oils, and solvents, will be stored in sealable containers in a designated location that is located at least 100 feet from wetlands and aquatic habitats.

**Avoidance/Minimization Measures for Foothill Yellow-Legged Frog and Northwestern Pond Turtle:**

- Construction activities within any drainages crossing the proposed trails will be avoided. If avoidance is not feasible, work within all ephemeral and intermittent drainages will be conducted during the dry period (generally May 1 through October 1). If work within an ephemeral drainage cannot be conducted during the dry period, and for work within perennial drainages (i.e., Coon Creek), a qualified biologist will conduct a preconstruction clearance survey for adult foothill yellow-legged frog and northwestern pond turtle no more than 24 hours before initial ground-disturbing activities. If foothill yellow-legged frogs or pond turtles are observed during the survey, a qualified biologist, in coordination with from CDFW, will relocate turtles and frogs to the nearest area with suitable aquatic habitat that will not be disturbed by project-related construction activities.

**Avoidance/Minimization Measures for Special-Status Bird Species and Bird Species Protected under the Migratory Bird Treaty Act (including golden eagle, yellow-breasted chat, yellow warbler, California black rail, tricolored blackbird, grasshopper sparrow, long-eared owl, white-tailed kite, American peregrine falcon, and loggerhead shrike):**

- Construction activity will occur outside the nesting season (February 15 to August 31). Alternatively, if construction cannot avoid the nesting season, preconstruction surveys for active nests of special-status birds and other birds protected by the Migratory Bird Treaty Act will be required before commencement of any project activities. The preconstruction survey will cover an area at least 250 feet from the footprint of the proposed construction activities and will be conducted by a qualified biologist within 14 days before project construction begins. If an active nest is detected, the qualified biologist will establish a no-construction buffer around the nest until nesting is verified to be complete. The size of the buffer can range from 50 to 250 feet, depending on the species of bird, nature of the project activity, the extent of existing disturbance in the area, and other relevant circumstances, as determined by a qualified biologist in coordination with CDFW.

**Avoidance/Minimization Measures for Bat Species:**

- A qualified biologist will conduct a habitat assessment within the study area to determine if suitable habitat within the project area is being used as roost habitat, at least 1 year before commencement of project activities so that seasonal use of roost habitat can be determined. If potentially active bat roosts are detected within the study area that could be adversely affected by trail construction, a bat roost protection plan will be developed in coordination with CDFW and implemented during construction to avoid impacts on bat roosts potentially affected by trail expansion activities.

**Avoidance/Minimization Measures for Special-Status Fish Species:**

- In addition to the Best Management Practices to protect aquatic resources listed above, avoidance and minimization measures required by CDFW, USFWS, and NMFS to protect special-status fish species will be implemented. These measures might include avoiding construction activities in or adjacent to Coon Creek during months when special-status fish species and sensitive life stages are likely to be present and conducting preconstruction fish clearance surveys and monitoring before and during construction activities.

If you have any questions or require additional information, please do not hesitate to call us at (916) 414-5800.

Sincerely,

Pam Brillante
Biologist

Cc: Susan Sanders, AECOM
Petra Unger, AECOM
Ken Koch, AECOM

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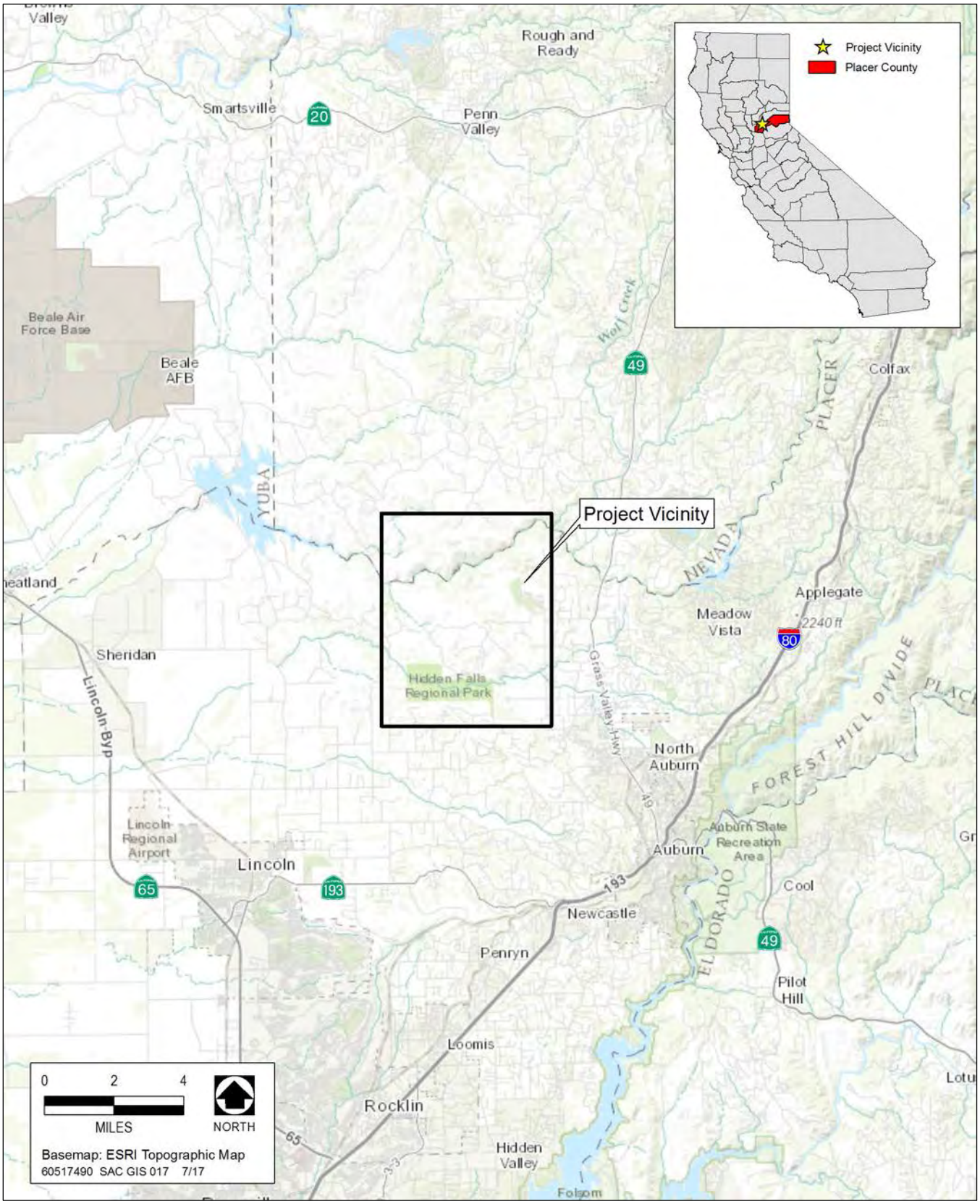
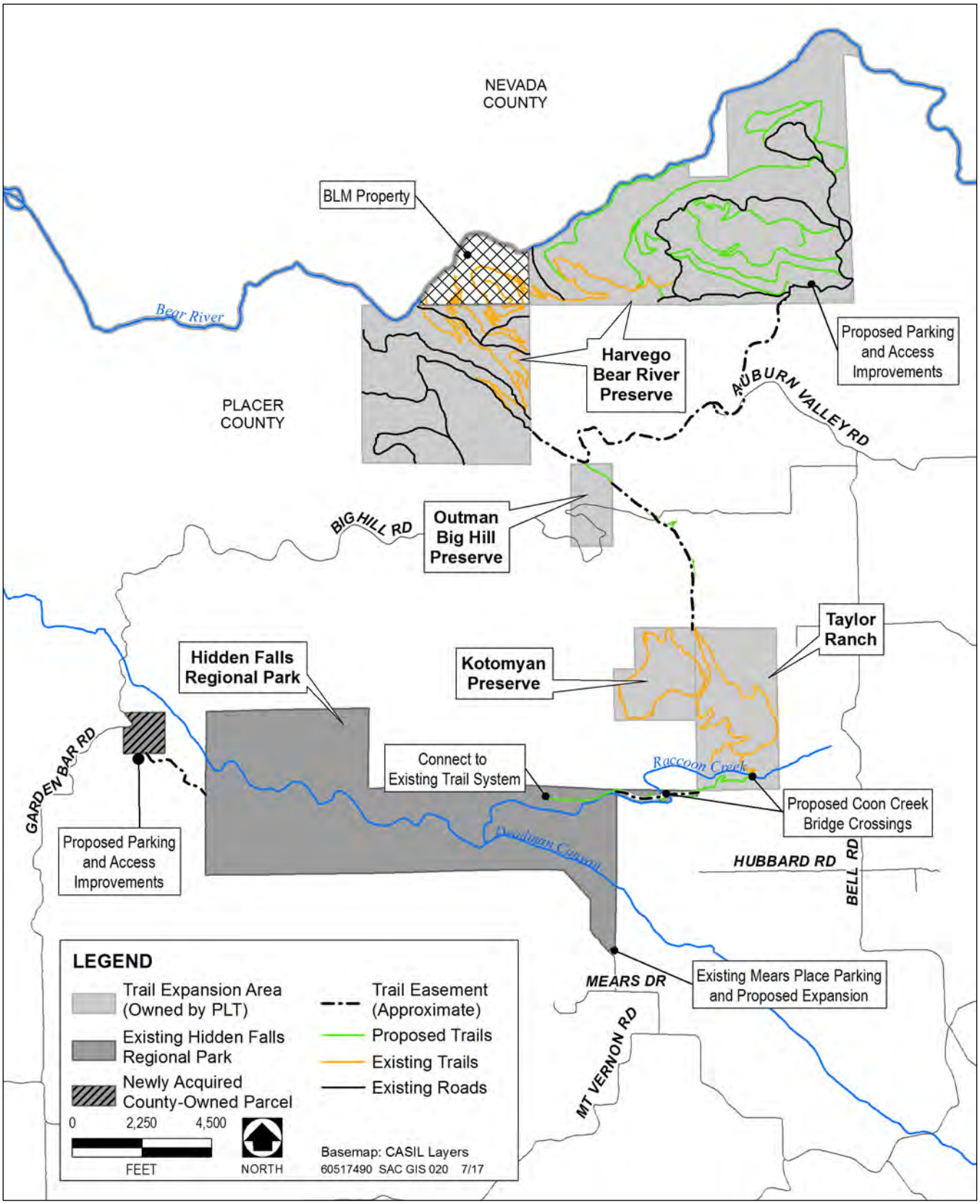
# APPENDIX A

Exhibits




Source: AECOM 2017.

**Exhibit 1. Project Area and Vicinity**




Source: AECOM 2017.

**Exhibit 2. Project Map**

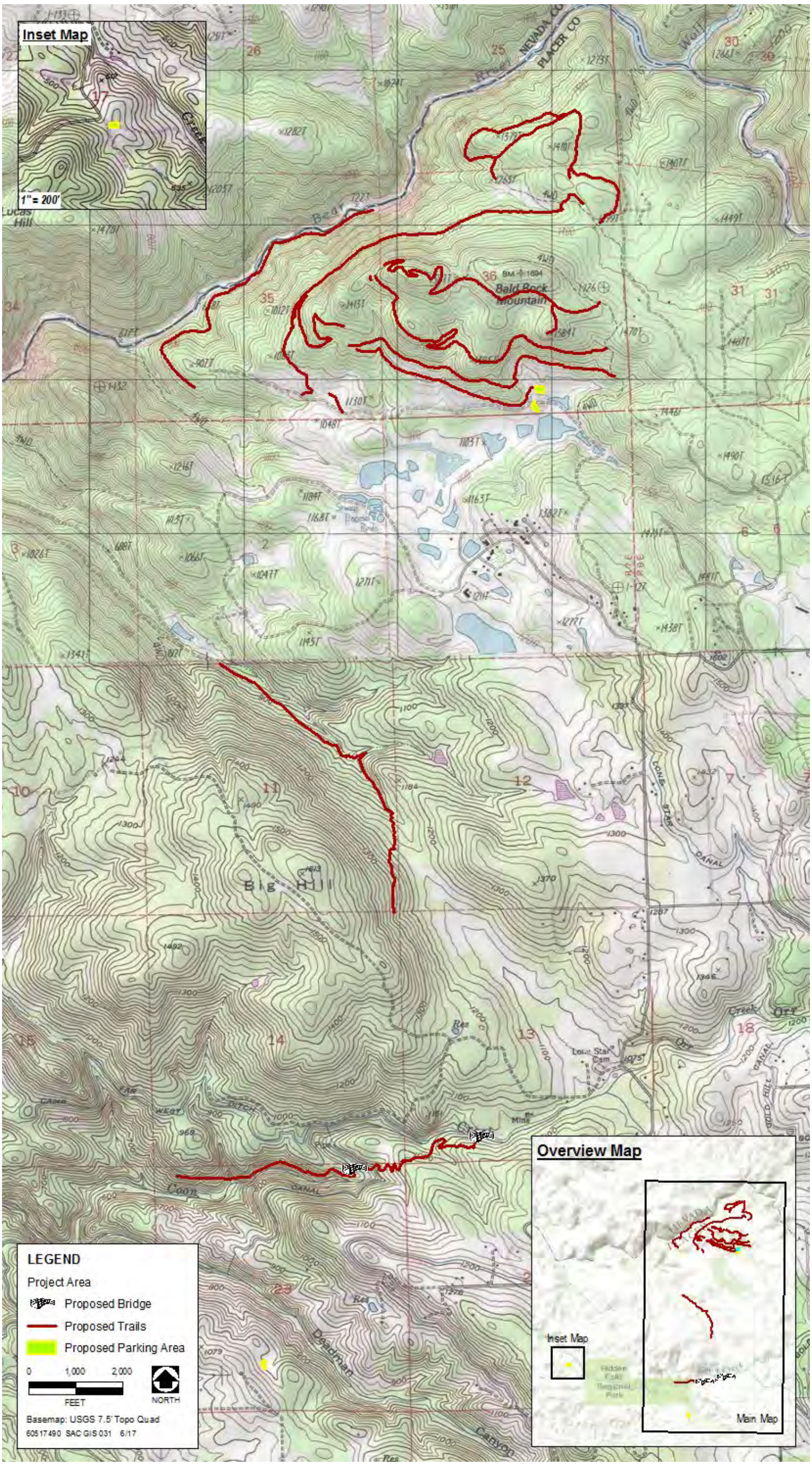



**Exhibit 3. Study Area Locations**

Delineation of Wetland and Other Waters of the United States

# *Delineation of Wetlands and Other Waters of the United States*
# *Hidden Falls Regional Park Trail Network Expansion Project*

Prepared for:

Placer County Public Works and Facilities

March 2018

# *Delineation of Wetlands and Other Waters of the United States*

Hidden Falls Regional Park Trail Network Expansion Project

March 2018

Prepared for:

Placer County Public Works and Facilities

Parks Division
11476 C Avenue
Auburn, CA 95603

Contact:

Lisa Camahan
Parks Planner
(530) 889-6837

Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

Pamela Brillante
Biologist
(916) 414-5831

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# List of Abbreviated Terms

| | |
|---|---|
| BRP | Bear River Preserve |
| County | Placer County |
| CWA | Clean Water Act |
| FAC | facultative |
| FACU | facultative upland |
| FACW | facultative wetland |
| NI | no indicator |
| NL | not listed |
| NRCS | U.S. Natural Resources Conservation Service |
| NRPW | non–relatively permanent water |
| OBL | obligate |
| OHWM | ordinary high-water mark |
| project | Hidden Falls Regional Park Trail Network Expansion Project |
| RPW | relatively permanent water |
| TNW | traditional navigable water |
| UPL | obligate upland |
| USACE | U.S. Army Corps of Engineers |
| USGS | U.S. Geological Survey |

# Chapter 1. Introduction

This report presents the methods and results of a delineation of waters of the United States conducted in support of the proposed Placer County (County) Hidden Falls Regional Park Trail Network Expansion Project (project). The County proposes to expand Hidden Falls Regional Park's trail network onto additional lands owned by Placer Land Trust, where the County holds trail easement rights, and onto County-owned land. The County will prepare a subsequent environmental impact report pursuant to Section 15162 of the California Environmental Quality Act Guidelines to describe and evaluate the potential environmental impacts of developing the proposed new trails and access areas.

The project area, which consists of Hidden Falls Regional Park and the proposed trail expansion study area, is in western Placer County, south of the Bear River, approximately 40 miles northeast of Sacramento (Figure 1). The existing Hidden Falls Regional Park, which encompasses approximately 1,200 acres in the Sierra Nevada foothills, consists of the properties formerly known as the Spears Ranch and Didion Ranch. The existing regional park has three access points, with a parking area at Mears Place and areas for future parking lots off Garden Bar Road and Curtola Ranch Road.

Figure 2 shows the existing Hidden Falls Regional Park, the recently acquired parcel off Garden Bar Road, and the boundaries of the proposed trail network expansion areas. Most of the proposed trail expansion areas lie north and northeast of the existing park; they consist of the areas known as Taylor Ranch (321 acres) and Harvego Bear River Preserve (BRP) (1,773 acres) and privately owned parcels with trail easements, such as Liberty Ranch (313 acres).

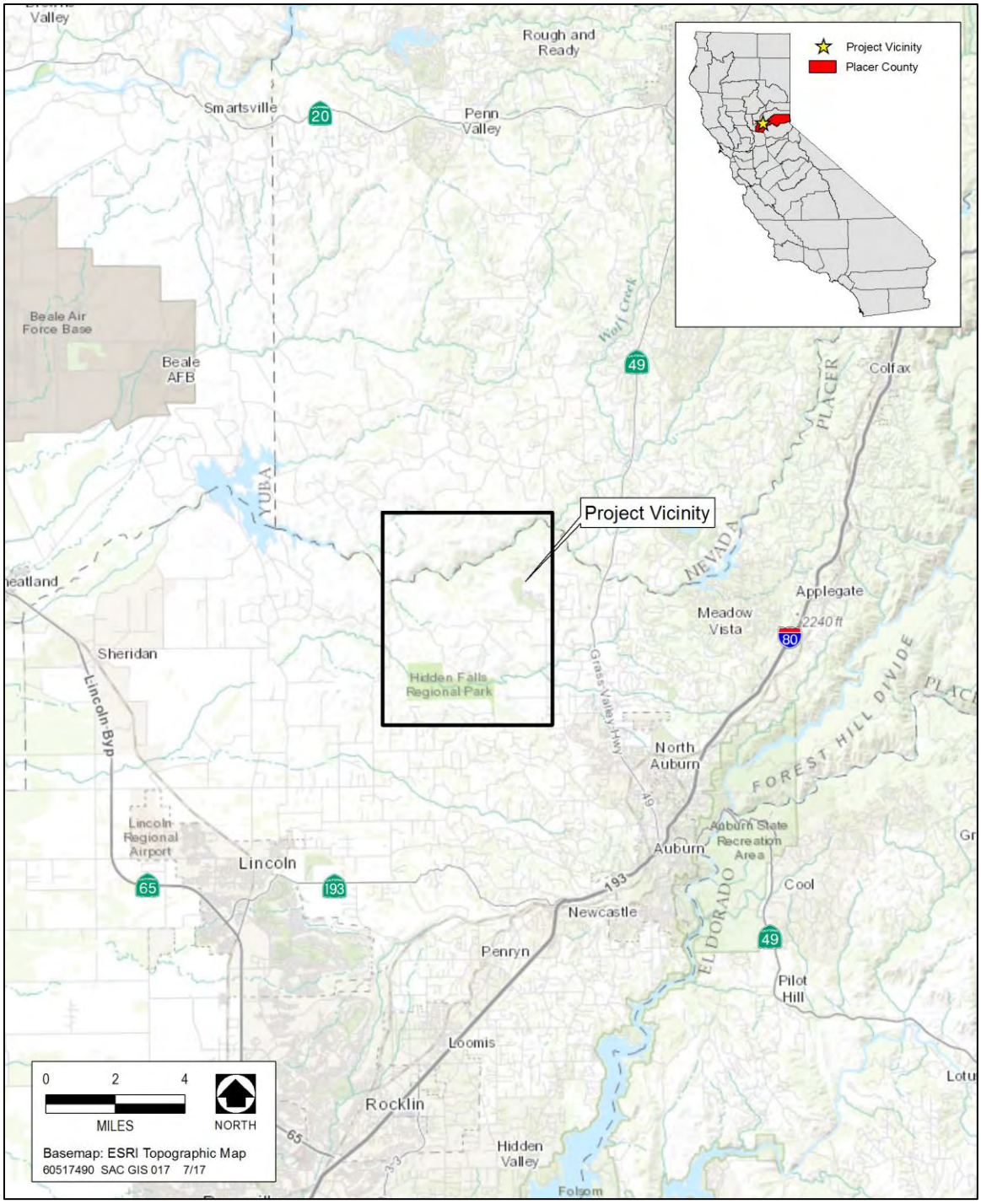
Harvego BRP has a working cattle ranch, an extensive network of existing ranch roads, and some trails built by Placer Land Trust. Liberty Ranch is a cattle ranch currently under Williamson Act contract; it has no existing trails. As part of the proposed project, trails would also cross the Kotomyan Big Hill Preserve (160 acres) and Outman Big Hill Preserve (80 acres). The Outman Big Hill Preserve has no existing trails.

Trail connections are also proposed from a recently acquired parcel off Garden Bar Road to the western end of the existing regional park and from the eastern end of the park to Taylor Ranch, through parcels either owned or held in easement by the County. The U.S. Bureau of Land Management owns the area between the two portions of the

Harvego BRP and south of the Bear River. Two bridges over Coon Creek would be constructed as part of the proposed trail system.

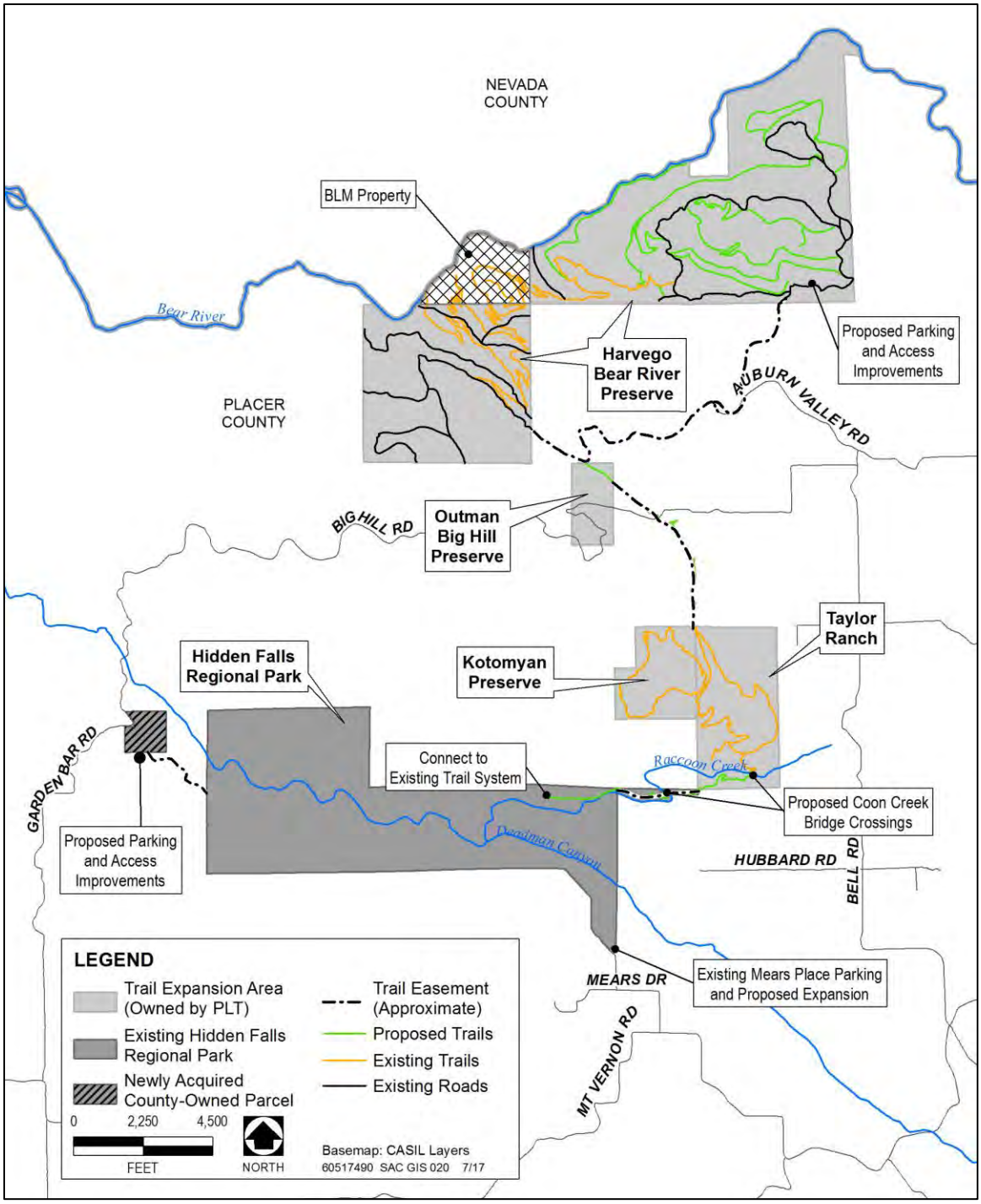
As shown in Figure 2, most of the proposed trail expansion area is located between the existing regional park and the Bear River to the north. Access to these properties is currently constrained by limited roadways and surrounding private property, and entry is limited to guided tours led by Placer Land Trust. The County has trail easement rights within these properties.

AECOM biologists conducted site visits on December 6–7 and 13–14, 2016, and May 27, May 30–31, and June 1, 2017. The delineation was conducted using the routine on-site determination methods described in the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory 1987), supplemented by the *Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region* (USACE 2008a). Other waters of the United States were mapped and delineated in the field in accordance with the guidelines listed in USACE Regulatory Guidance Letter 05-05, *Ordinary High Water Mark Identification* (USACE 2005).




Source: Data compiled by AECOM in 2017

**Figure 1. Project Vicinity**




Source: Data compiled by AECOM in 2017

**Figure 2. Project Map**

# Chapter 2. Delineation Methods

Before conducting the field delineation survey, an AECOM biologist reviewed color aerial imagery of the study area in Google Earth, as well as National Wetlands Inventory data and the U.S. Natural Resources Conservation Service (NRCS) soil survey of *Placer County, California, Western Part* (NRCS 2016), to determine areas of potential USACE jurisdiction. The wetland delineations were conducted in the study area on December 6–7 and 13–14, 2016, and May 27, May 30–31, and June 1, 2017, by AECOM biologists Pamela Brillante, Tammie Beyerl, and Kristin Asmus.

The study area consists of the proposed trail system alignment plus 50 feet on either side of the trail system alignment and parking areas (Figure 3). In locations where no trail exists, the trail was assumed to be 4 feet wide. Existing ranch roads would be used as part of the proposed trail system but would not be subject to any disturbance during construction, and were therefore not included as part of the study area for this delineation. In addition, proposed trails that overlap the study area for the Hidden Falls Regional Park Connectivity Project (Placer County 2012) were also excluded as part of the study area for this delineation, unless new aquatic features were identified in these areas during the field investigations conducted in 2016 and 2017. Aquatic features in these overlap areas that were previously delineated (Placer County 2012) are not discussed in this report. Details on these aquatic features are available in *Preliminary Delineation of Waters of the United States, Including Wetlands for the Hidden Falls Regional Park Connectivity Project* (Placer County 2012).

Two trail segments, the segment adjacent to the Bear River and the southernmost segment within the Harvego BRP, were inaccessible because of steep slopes or dense vegetation. Waters that crossed these areas were delineated based on aerial imagery, topographic maps, and geographic information system water data layers. Three proposed parking areas were surveyed; the boundary of one of these proposed parking areas was modified after the field survey and potentially contains an aquatic feature. The other parking areas lack aquatic features, and therefore are not discussed further in this report.

Weather conditions during the December 2016 field delineation were partly cloudy to overcast, with temperatures ranging from the mid-40s to mid-50s Fahrenheit and winds at 2–10 miles per hour. In May and June 2017, the weather was sunny, with temperatures of 70–80 degrees Fahrenheit and winds of 4–15 miles per hour.

The USACE 1987 wetlands delineation manual (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a) were used to delineate wetlands potentially subject to USACE jurisdiction under Section 404 of the Clean Water Act (CWA). The 1987 manual and 2008 Arid West Supplement provide technical guidelines and methods for the three-parameter approach to determining the location and boundaries of jurisdictional wetlands. This approach requires that an area support positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology to be considered a jurisdictional wetland.

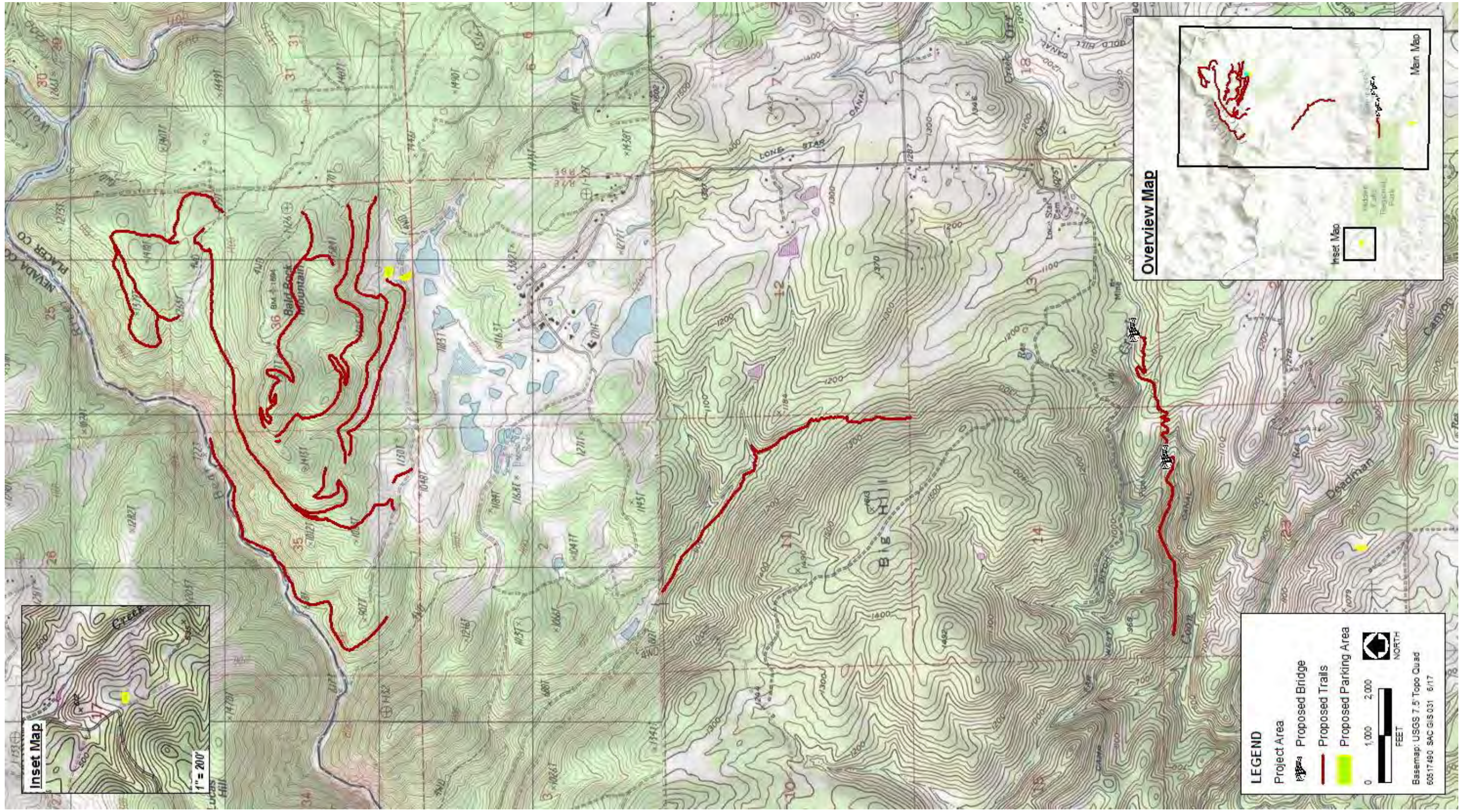
A wetland determination data form was completed for representative aquatic resources. Some of the data points were taken outside of the study area boundary because steep terrain or dense vegetation prevented direct access where the proposed trail would cross the drainage. However, the drainage structure at the location of the data point was representative of the drainage structure at the proposed trail crossing. Copies of the forms are presented in Appendix B. Potential jurisdictional areas were identified and mapped in the field and later digitized onto aerial imagery. Sample point locations were recorded digitally using a global positioning system data logger (Trimble XH) and imported onto an electronic version of the aerial photograph for each location. Global positioning system data were recorded in the North American Datum of 1983.

To determine whether the area at a sample point was dominated by hydrophytic vegetation, plant species at each sample site were recorded and the wetland indicator status was recorded for the dominant species using USACE's *National Wetlands Plant List for the Arid West Region* (Lichvar et al. 2016). A species is considered dominant when that species—individually or collectively—accounts for 50 percent of the total absolute cover in a vegetation stratum. Additional codominant species are identified if those species account for at least 20 percent of the absolute cover in a designated vegetation stratum (USACE 2008a).

Hydrophytic species include those listed as obligate (OBL), facultative wetland (FACW), or facultative (FAC) species, which correspond to a given species frequency of occurrence in wetlands. The plant indicator categories are defined as follows:

- *OBL*—greater than 99 percent occurrence in wetlands
- *FACW*—between 66 percent and 99 percent occurrence in wetlands
- *FAC*—between 33 percent and 66 percent occurrence in wetlands

For this delineation, a sample site was considered to have hydrophytic vegetation if greater than 50 percent of the dominant species had an indicator status of FAC or wetter. This report uses the following indicators to identify species not considered hydrophytic:




Source: Data provided by Placer County in 2017

**Figure 3. Study Area**

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- *Facultative upland (FACU)*—species that usually occur in nonwetlands (estimated probability of 67–99 percent) but are occasionally found in wetlands (estimated probability of 1–33 percent)
- *Obligate upland (UPL)*—species that may occur in wetlands in another region, but almost always (greater than 99 percent) occur in nonwetlands in California (Region 0) under natural conditions
- *No indicator (NI)*—species for which insufficient information was available to determine an indicator status
- *Not listed (NL)*—species not listed on the National Wetland Plant List (Lichvar et al. 2016)

Standard protocol states that a species with an NL designation should be considered UPL when the delineator completes the "Prevalence Index Worksheet" portion of the wetland delineation data form (USACE 2008a). Botanical nomenclature follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012).

Wetland hydrology was assessed by recording observations such as saturation, inundation, oxidized rhizospheres along living root channels, and sediment deposits. In addition, the potentially jurisdictional areas were all evaluated in terms of their status as navigable waterways or their adjacency or hydrological connection to a navigable waterway.

Waters of the United States were delineated based on the ordinary high-water mark (OHWM) using the OHWM field guide (Lichvar and McColley 2008). A drainage feature's OHWM typically corresponds with characteristics such as shelving, scour lines, and other natural linear features that define the bed and bank portion of the channel that floods under normal conditions (USACE 2005).

The NRCS soil survey of *Placer County, Western Part* (NRCS 2016) was consulted to identify soil units mapped in the project area by NRCS. These soils were cross referenced to the National Hydric Soils List (NRCS 2018) to determine whether any of the mapped soil units are listed as hydric.

The *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* was consulted to aid the preliminary determination that an area would be subject to USACE jurisdiction under CWA Section 404 (USACE and EPA 2007). The significant nexus test—outlined in a memorandum jointly authored by the

U.S. Environmental Protection Agency and USACE—was applied to each potentially jurisdictional habitat type (Grumbles and Woodley 2008). To facilitate a jurisdictional determination consistent with the guidance, each water body delineated was evaluated as a traditional navigable water (TNW), relatively permanent water (RPW), or non-RPW based on the following definitions:

- *TNWs*—all waters subject to the ebb and flow of the tide, or waters that are presently used, have been used in the past, or may be used in the future to transport interstate or foreign commerce, and all waters that are navigable in fact under federal law for any purpose
- *RPWs*—waters that flow continuously at least seasonally (typically at least 3 months of the year) and are not TNWs
- *Non-RPWs*—waters that do not have continuous flow at least seasonally

The following types of water bodies are subject to CWA jurisdiction:

- All TNWs and adjacent wetlands
- Relatively permanent tributaries of TNWs and wetlands with a continuous surface connection to such tributaries
- Non–relatively permanent tributaries of TNWs and adjacent wetlands if they have a significant nexus to a TNW

Non-RPWs and adjacent wetlands are determined to have a significant nexus to a TNW if they significantly affect the chemical, physical, or biological integrity of a downstream TNW. The conclusions of this report are consistent with the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook.*

# Chapter 3. Environmental Setting

## Site Conditions

The study area is located on the Wolf U.S. Geological Survey (USGS) 7.5-minute quadrangle, Mt. Diablo Meridian (1981): Township 14 North, Range 7 East, Sections 25, 35, and 36; and the Gold Hill USGS 7.5-minute quadrangle, Mt. Diablo Meridian (1981): Township 13 North, Range 7 East, Sections 11–14 and 23 (USGS 1981) (Figure 3).

The study area occupies 154.13 acres and is located within Major Land Resource Area C, the California Subtropical Fruit, Truck, and Specialty Crop Region of the United States (NRCS 2006). Specifically, the study area is located within the Sierra Nevada Foothills Major Land Resource Area.

The study area has few roads and includes expansive undeveloped areas within the Coon Creek and Bear River watersheds. The lands adjacent to the study area consist of rolling hills and are primarily private lands used for agriculture, grazing, and rural residences. The study area ranges from approximately 600 to 1,600 feet above mean sea level.

## Vegetation Communities

The study area is generally composed of gentle rolling to steep hills that are mostly covered by oak woodlands, interspersed with annual grassland and riparian corridors. The habitat in the study area can be described more specifically by species composition according to the California Wildlife Habitat Relationships system (CDFW 2016). The following habitat types are found in the project area: blue oak woodland and blue oak–foothill pine woodland, interspersed with annual grassland, valley foothill riparian, and mixed chaparral.

### Blue Oak Woodland

Blue oak woodland is found throughout the study area. This habitat type is dominated by blue oak (*Quercus douglasii*) (NL) with a generally sparse shrub layer consisting of poison oak (*Toxicodendron diversilobum*) (FACU), chaparral honeysuckle (*Lonicera interrupta*) (NL), and holly-leaf redberry (*Rhamnus ilicifolia*) (NL) that is generally restricted to rock outcrops. The herbaceous layer in the blue oak woodland is composed of nonnative annual grasses and seasonal forbs, such as bromes (*Bromus diandrus* [NL], *B. hordeaceus* [FACU]), wild oat (*Avena fatua*) (NL), foxtail barley (*Hordeum murinum* ssp. *leporinum*) (NL), medusahead (*Elymus caput-medusae*) (NL), cut-leaved geranium

(*Geranium dissectum*) (NL), and Italian thistle (*Carduus pycnocephalus*) (NL). There are also some widely scattered native perennial grasses.

### Blue Oak–Foothill Pine Woodland

Blue oak–foothill pine woodland is also common throughout the study area. The dominant species in these stands are blue oaks, interior live oak (*Quercus wislizenii*) (NL), foothill pine (*Pinus sabiniana*) (NL), black oak (*Q. kelloggii*) (NL), and canyon live oak (*Q. chrysolepis*) (NL). Some pockets of this habitat also include ponderosa pine (*Pinus ponderosa*) (FACU). The understory species include shrubs such as California poison oak, California buckeye (*Aesculus californica*) (NL), toyon (*Heteromeles arbutifolia*) (NL), and hoary coffeeberry (*Rhamnus tomentella*) (NL). Similar to blue oak woodland, the herbaceous layer is continuous and dense, with exposed soil generally limited to areas of disturbance from grazing or farm equipment; the layer is composed of annual grasses and forbs similar to those in the blue oak woodland habitat. This habitat type also has some open areas, with an herbaceous layer that is less dense than it is in blue oak woodland and with a larger number of native species.

### Annual Grassland

Annual grassland habitat in the study area is dominated by annual grasses such as those found in the herbaceous layer of blue oak and blue oak–foothill pine woodland. This habitat is also dominated by ripgut brome, and by native and nonnative forbs: subterraneum clover (*Trifolium subterraneum*) (NL), broadleaf filaree (*Erodium botrys*) (FACU) and red-stem filaree (*E. cicutarium*) (NL), rose clover (*T. hirtum*) (NL), stalked popcorn flower (*Plagiobothrys stipitatus* var. *micranthus*) (FACW), johnnytuck (*Triphysaria eriantha*) (NL), and Douglas' violet (*Viola douglasii*) (NL). Purple needle grass (*Nassella pulchra*) (NL) and blue wild rye (*Elymus glaucus*) (FACU) are the dominant native perennial grasses.

### Mixed Chaparral

Mixed chaparral habitat in the study area is limited. Dominant species found in this habitat type include poison oak, chaparral honeysuckle, holly-leaf redberry, toyon, buckbrush (*Ceanothus cuneatus*) (NL), and hoary coffeeberry (*Frangula californica* ssp. *tomentella*) (NL). Other species observed include gooseberries (*Ribes* sp.) and serviceberries (*Amelanchier* sp.). Common herbaceous species include Chinese-houses (*Collinsia heterophylla*) (NL), foothill collinsia (*C. sparsiflora* var. *collina*) (NL), sessile wood-rush (*Luzula comosa* var. *subsessilis*) (FAC), Henderson's shooting-star (*Dodecatheon hendersonii*) (NL), and California melic (*Melica californica)* (NL).

### Foothill Valley Riparian

The riparian corridors along Coon Creek and other small tributaries are dominated by valley oak (*Quercus lobata*) (NL), red willow (*Salix laevigata*) (FACW), and white alder (*Alnus rhombifolia*) (FACW). Understory dominants include patches of Himalayan blackberry (*Rubus armeniacus*) (FAC), poison oak, buttonbush (*Cephalanthus occidentalis*) (OBL), and Spanish broom (*Spartium junceum*) (NL). Locally dominant species include arroyo willow (*Salix lasiolepis*) (FACW), Fremont cottonwood (*Populus fremontii*) (FAC), wild grape (*Vitis californica*) (FACU), giant horsetail (*Equisetum telmateia* ssp. *braunii*) (FACW), skunkbrush (*Rhus trilobata*) (FACU), rushes (*Juncus* sp.), and sedges (*Carex* sp.). Deer grass (*Muhlenbergia rigens*) (FAC) and California melic are the dominant native perennial grasses.

## Soil Survey Results

The Web Soil Survey indicates that the soils in the study area belong to three soil series: Auburn series, Sobrante series, and Boomer series. The study area contains six soil units in the Auburn series, four of which are also in the Sobrante series, and one soil unit in the Boomer series. Table 1 lists the soil unit mapped at each site in the study area and its hydric status according to the National Hydric Soils List (NRCS 2018). The soils map in Figure 4 depicts the location of each soil unit in the study area, as mapped by NRCS. Brief descriptions of each soil series are provided below.

**Table 1. Soil Units Present in the Study Area**

| Soil Unit | Hydric Soil? |
|---|---|
| Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes | No |
| Auburn-Sobrante-Rock outcrop complex, 30 to 50 percent slopes | No |
| Auburn-Sobrante-Rock outcrop complex, 50 to 70 percent slopes | No |
| Auburn-Sobrante silt loams, 15 to 30 percent slopes | No |
| Auburn silt loam complex, 2 to 15 percent slopes | No |
| Auburn–Rock outcrop complex, 2 to 30 percent slopes, MRLA 18 | Yes[1] |
| Boomer–Rock outcrop complex, 30 to 50 percent slopes | No |
| Rock outcrop | No |

Notes:

MRLA = Major Land Resource Area

[1] One of the minor components (Typic Humaquepts) in this soil unit is hydric.

Sources: NRCS 2018; data compiled by AECOM in 2016–2018

### Auburn Series

Auburn soils typically occur on undulating to very steep foothills. Slopes range from 2 to 75 percent at elevations of 125–3,000 feet. Auburn soils consist of shallow to moderately deep, well-drained soils derived from amphibolite schist. These soils are moist in all parts from mid-November to May and dry in all parts between depths of 8 and 20 inches or to a lithic contact from June to mid-October. They are taxonomically classified as loamy, mixed, superactive, thermic Lithic Haploxerepts.

### Sobrante Series

Sobrante soils typically occur on foothills. Slopes range from 2 to 75 percent at elevations of 125–3,500 feet. Sobrante soils consist of moderately deep, well-drained soils derived from basic igneous and metamorphic rock. These soils are usually moist between depths of about 5 and 15 inches, are dry in all parts in May or early June, and remain dry until October to mid-November. They are taxonomically classified as fine-loamy, mixed, active, thermic Mollic Haploxeralfs.

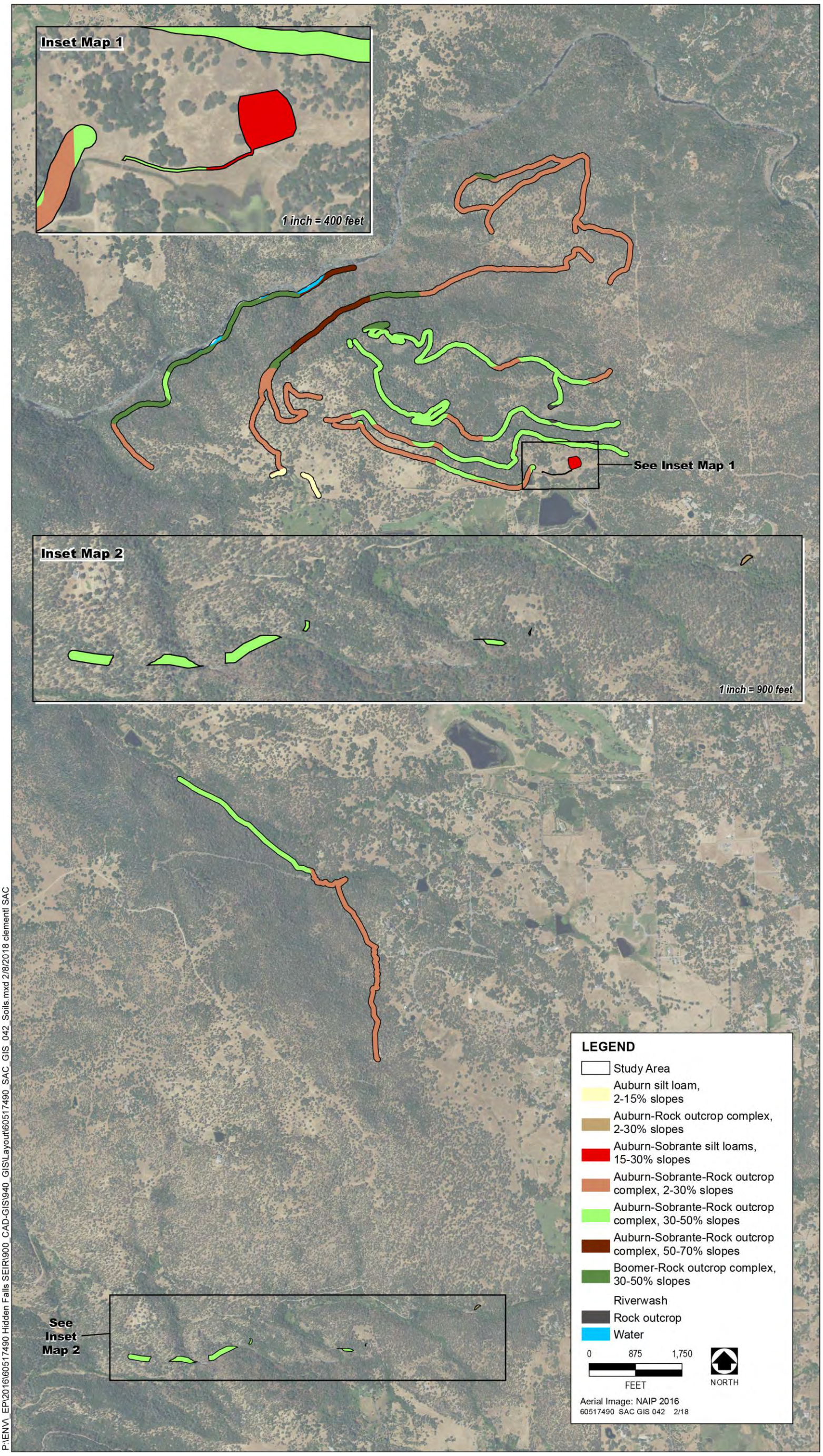
### Boomer Series

Boomer soils typically occur on uplands. Slopes range from 2 to 75 percent at elevations of 500–5,000 feet. Boomer soils consist of deep and very deep, well-drained soils derived from metavolcanic rock. These soils are usually moist between depths of 6 and 20 inches and dry in all parts for about 105–130 days from mid-June to mid-October. They are taxonomically classified as fine-loamy, mixed, superactive, mesic Ultic Haploxeralfs.

## Hydrologic Setting

The study area is located within the Coon Creek and Bear River watersheds, in the Deadman Canyon–Coon Creek and Camp Far West Reservoir–Bear River Hydrologic Units (USGS Hydrologic Unit Codes 180201610203 and 180201260302, respectively). Natural hydrology on the site is driven primarily by direct precipitation and associated runoff into streams and channels.

Coon Creek within the study area flows across Taylor Ranch and into Hidden Falls Regional Park and crosses the project area in several locations. The Bear River abuts most of the northern boundary of the Harvego BRP. Coon Creek and all drainages associated with Coon Creek flow to the East Side Canal, which flows into the Natomas Cross Canal to the Sacramento River, the nearest TNW (USACE 2018). The Bear River flows into Camp Far West Reservoir, then flows west into the Feather River to the Sacramento River (EPA 2017).




Source: Data compiled by AECOM in 2018

**Figure 4. Soils in the Study Area**

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Precipitation in the area falls primarily as rain. Snow events are rare. The Auburn Station's Western Regional Climate Center precipitation gauge receives an average annual precipitation of 34.39 inches; in addition, the highest amounts of rainfall occur in November–March (WRCC 2018). The climate is characterized by a hot dry season and a cool wet season. Precipitation in the Sacramento River hydrologic region as measured at Auburn was at 106 percent of historic average for the October 2016–September 2017 water year (DWR 2017).

## National Wetlands Inventory

The U.S. Fish and Wildlife Service National Wetlands Inventory was queried for information regarding any wetlands previously mapped in the study area. The National Wetlands Inventory did not identify any wetlands in the study area (USFWS 2016).

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# Chapter 4. Delineation Results

This chapter presents the results of the delineation of waters of the United States, as defined by USACE under CWA Section 404, for the study area. These results are considered draft until verified by the USACE Sacramento District. The maps provided in Appendix A were prepared in accordance with the Draft Map and Drawing Standards for the South Pacific Regulatory Program, Special Public Notice (USACE 2016). However, the maps are at a scale of 1 inch = 300 feet. Because of the long, narrow linear nature of the study area, the scale was reduced from the map standard of 1 inch = 200 feet to reduce the number of maps in the mapbook. This map can be used by the County to obtain a preliminary jurisdictional determination from the USACE Sacramento District, as described under Regulatory Guidance Letter 08-02 (USACE 2008b).

Mapped features have been divided into their representative categories: RPW and non-relatively permanent water (NRPW). There are 24 potentially jurisdictional waters in the study area (Table 2). Appendix A shows the location and extent of each potentially jurisdictional water. Appendix B provides sample point data sheets. The table presented in Appendix C lists all features identified in this report and shown in Appendix A. Appendix D presents a habitat map and Appendix E lists plant species observed during the field delineation survey. Appendix F shows representative photographs of the delineated features.

## Jurisdictional Features

A total of 2.58 acres of potentially jurisdictional features are present in the study area. These features consist of perennial stream and intermittent and ephemeral drainages (Table 2).

**Table 2. Potential Jurisdictional Waters of the United States in the Study Area**

| Feature | Identification | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters** | | **2.09** |
| Perennial Drainages | | *1.64* |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| Intermittent Drainages | | *0.45* |
| Intermittent Drainage | ID1 | 0.13 |
| Intermittent Drainage | ID2 | 0.02 |
| Intermittent Drainage | ID3 | 0.09 |
| Intermittent Drainage | ID4 | 0.01 |
| Intermittent Drainage | ID5 | 0.19 |
| Intermittent Drainage | ID6 | 0.005 |
| **Total All Non–Relatively Permanent Waters** | | **0.50** |
| Unnamed Ephemeral Drainages | ED1 | 0.04 |
| Unnamed Ephemeral Drainages | ED2 | 0.01 |
| Unnamed Ephemeral Drainages | ED3 | 0.02 |
| Unnamed Ephemeral Drainages | ED4 | 0.02 |
| Unnamed Ephemeral Drainages | ED5 | 0.02 |
| Unnamed Ephemeral Drainages | ED6 | 0.05 |
| Unnamed Ephemeral Drainages | ED7 | 0.004 |
| Unnamed Ephemeral Drainages | ED8 | 0.04 |
| Unnamed Ephemeral Drainages | ED9 | 0.01 |
| Unnamed Ephemeral Drainages | ED10 | 0.01 |
| Unnamed Ephemeral Drainages | ED11 | 0.20 |
| Unnamed Ephemeral Drainages | ED12 | 0.02 |
| Unnamed Ephemeral Drainages | ED13 | 0.01 |
| Unnamed Ephemeral Drainages | ED14 | 0.01 |
| Unnamed Ephemeral Drainages | ED15 | 0.01 |
| Unnamed Ephemeral Drainages | ED16 | 0.005 |
| **Total Potentially Jurisdictional Features** | | **2.58** |

Notes:

ED = ephemeral drainage; ID = intermittent drainage

*Total acreage reported is rounded to the hundredth place (or thousandth if less than 0.01) for reporting of total potentially jurisdictional features.

Source: Data compiled by AECOM in 2018

## Relatively Permanent Waters

RPWs are tributaries to TNWs that typically have continuous flow for at least 3 months of the year. Perennial and intermittent drainages are RPWs that are subject to USACE jurisdiction pursuant to Section 404 of the CWA. Seven RPWs (five intermittent drainages and two perennial drainages) cross the study area (Appendix A).

### PERENNIAL DRAINAGES

The two perennial drainages in the study area, the Bear River and Coon Creek, total 1.64 acres in the study area. The Bear River abuts most of the northern boundary of the Harvego BRP. The stretch within the study area is characterized by steep slopes with dense vegetation and a channel bed composed largely of boulder and bedrock substrate. The Bear River is a tributary of the TNW Feather River and is therefore potentially subject to USACE jurisdiction under CWA Section 404.

At the west end of the study area, Coon Creek is a braided channel with vegetated instream gravel bars. It is confined by cut banks on a gentle slope and is dominated by boulders and cobble. Coon Creek crosses the study area again farther east; in this area, Coon Creek is dominated by a bedrock channel with several cascades. The segment of Coon Creek at the easternmost proposed bridge crossing is flat and confined by a gentle slope on the north side and a moderate slope on the south side. The creek contains a main channel and a side channel dominated by boulders and cobble, which are separated by a cobble bar. However, past the proposed bridge, this segment of the creek plunges approximately 75 feet downstream, outside of the study area. Coon Creek has a direct hydrological surface connection to a TNW, the Sacramento River. Coon Creek meets the criteria for waters of the United States based on its OHWM and is potentially jurisdictional under CWA Section 404. The data forms in Appendix B provide information about Coon Creek in the study area.

### INTERMITTENT DRAINAGES

There are six intermittent drainages totaling 0.45 acre in the study area. All six RPWs were delineated based on their OHWM using change in plant community, break in slope, and/or cut banks as indicators.

Three of the intermittent drainages (ID1, ID2, and ID5) convey flows to the Bear River. ID1 is a ditch with a low-flow channel and steep banks and an OHWM in the study area of 10 feet. It drains into a stock pond immediately adjacent to the study area. ID2 in the study area is dominated by boulder and cobble with upland grasses and occasionally rushes occurring within the channel. It lacks riparian vegetation and contains many small pools and has an OHWM of 5 feet. ID5 is dominated by a gravel, cobble, boulder channel bed, and cut banks and has an OHWM of 15 feet. Below the OHWM, the vegetation is composed mostly of foothill riparian with scattered alder and dense blackberry. Above the OHWM, the vegetation is composed of blue oak woodland.

The other three intermittent drainages, ID3, ID4, and ID6, are tributary to Coon Creek. All three drainages are composed of a boulder channel bed, but ID3 also has areas of

bedrock, and pockets of accumulated soil, sand, and gravel and ID6 also contains cobble. ID3 is a confined, steep channel with cascade pools and an OHWM of 30 feet. ID4 is a moderately sloped channel and has an OHWM of 5 feet. ID6 is characterized by a gentle slope and has an OHWM of 2 feet. It flows into a historic ditch that crosses the study area, following the ditch for approximately 15 feet where it then flows through a breach in the ditch down to a meadow and ultimately into Coon Creek. Both ID3 and ID4 contain foothill riparian vegetation rooted in the channel and ID6 generally lacks vegetation below the OHWM.

All six intermittent drainages in the study area have a direct surface connection to either the Bear River or Coon Creek, and therefore are potentially subject to USACE jurisdiction pursuant to CWA Section 404. The data forms in Appendix B provide information about the intermittent drainages in the study area.

### Non–Relatively Permanent Waters

NRPWs are waters that convey flow for a short duration, generally a few hours or days, after a precipitation event. NRPW features in the study area include 17 ephemeral drainages (Appendix A). NRPW features are subject to jurisdiction by USACE pursuant to CWA Section 404 if a significant nexus can be established to other waters of the United States. The ephemeral drainages in the study area have a direct surface connection to tributaries of the Bear River that eventually connect to the Bear River. The Bear River is subject to USACE jurisdiction pursuant to CWA Section 404; therefore, the ephemeral drainages in the study area are potentially subject to USACE jurisdiction pursuant to Section 404.

#### EPHEMERAL DRAINAGES

There are 17 ephemeral drainages totaling 0.50 acre in the study area. All NRPWs were delineated based on their OHWM using change in plant community, break in slope, change in sediment, and/or cut banks as indicators.

Most of these ephemeral drainages are characterized by a gravel/cobble/boulder channel bed, but some also contain sand, clay, or mud. The OHWM of these drainages averages approximately 5 feet but ranges from 2 to 20 feet wide. Some of the ephemeral drainages contain mostly grassy channels and almost all contain moss-covered rocks. Some drainages had flowing water at the time of the delineation survey, while others were dry but contained moist areas. Gradient varies; some drainages are characterized by steep banks and moderate to steep gradients (ED11 and ED16), while others are characterized by a gentle gradient (ED7 and ED9) and shallow flow spread out over a wide area (ED8). Most ephemeral drainages in the study area contain minimal riparian vegetation and are

surrounded by blue oak woodland or foothill pine oak woodland. All 17 ephemeral drainages in the study area have a direct surface connection to the Bear River, and therefore are potentially subject to USACE jurisdiction pursuant to CWA Section 404. The data forms in Appendix B provide information about the ephemeral drainages in the study area.

## Nonjurisdictional Habitats

The communities described under "Vegetation Communities" in Chapter 3 are nonjurisdictional upland features and make up approximately 151.54 acres in the study area. These habitats are considered nonjurisdictional under Section 404 of the CWA because they do not meet the three criteria for wetlands and are not located within the OHWM of a jurisdictional feature.

A proposed parking area within the Harvego BRP was added after the field surveys were conducted. Aerial imagery and topographic maps were reviewed and the proposed parking area boundaries were delineated in what appears to be a nonjurisdictional, upland area within 1.1 acres of annual grassland habitat. Based on a preliminary investigation conducted in the area during the field survey in 2017, access to the proposed parking area may cross a potentially jurisdictional seasonal wetland (wet meadow). Facultative vegetation (*Festuca perennis*) was observed to dominate this area; geomorphic position and saturation visible on aerial imagery supports potential wetland hydrology; and indicators of hydric soil were observed in the access area, although no data forms were completed at the time of the field survey. If use of the proposed parking area is pursued as part of this project, the parking area and access road may require further investigation to determine the area of potential wetland and the jurisdictional status.

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# Chapter 5. Discussion

The study area totals approximately 154.13 acres. Of this total, 2.58 acres are potentially jurisdictional features. Six RPWs are likely subject to USACE jurisdiction under Section 404 of the CWA: the Bear River (1.15 acres), Coon Creek (0.48 acre), six intermittent drainages (0.45 acre), and 17 ephemeral drainages (0.50 acre). These features are characterized by well-established bed, bank, and channel. They also have a clearly identifiable OHWM and are tributary to the Bear River, tributary to the TNW Feather River, or tributary to Coon Creek, which has a direct surface connection to the East Side Canal to the Natomas Cross Canal and ultimately to the TNW Sacramento River.

Blue oak woodland, blue oak–foothill pine woodland, annual grassland, mixed chaparral, and foothill valley riparian habitats lack one or more criteria that define wetlands and are located above an OHWM. These habitats are generally not regulated by USACE under CWA Section 404. A proposed parking area was added to the project area after the field survey and, based on desktop review, is located within a nonjurisdictional habitat. The access road for this proposed parking area would likely cross a potentially jurisdictional seasonal wetland. Both the proposed parking area and the access road require further investigation to determine their potential jurisdictional status. This jurisdictional determination is considered draft and contingent on verification by the USACE Sacramento District.

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# **Appendix A** Wetland Delineation Maps

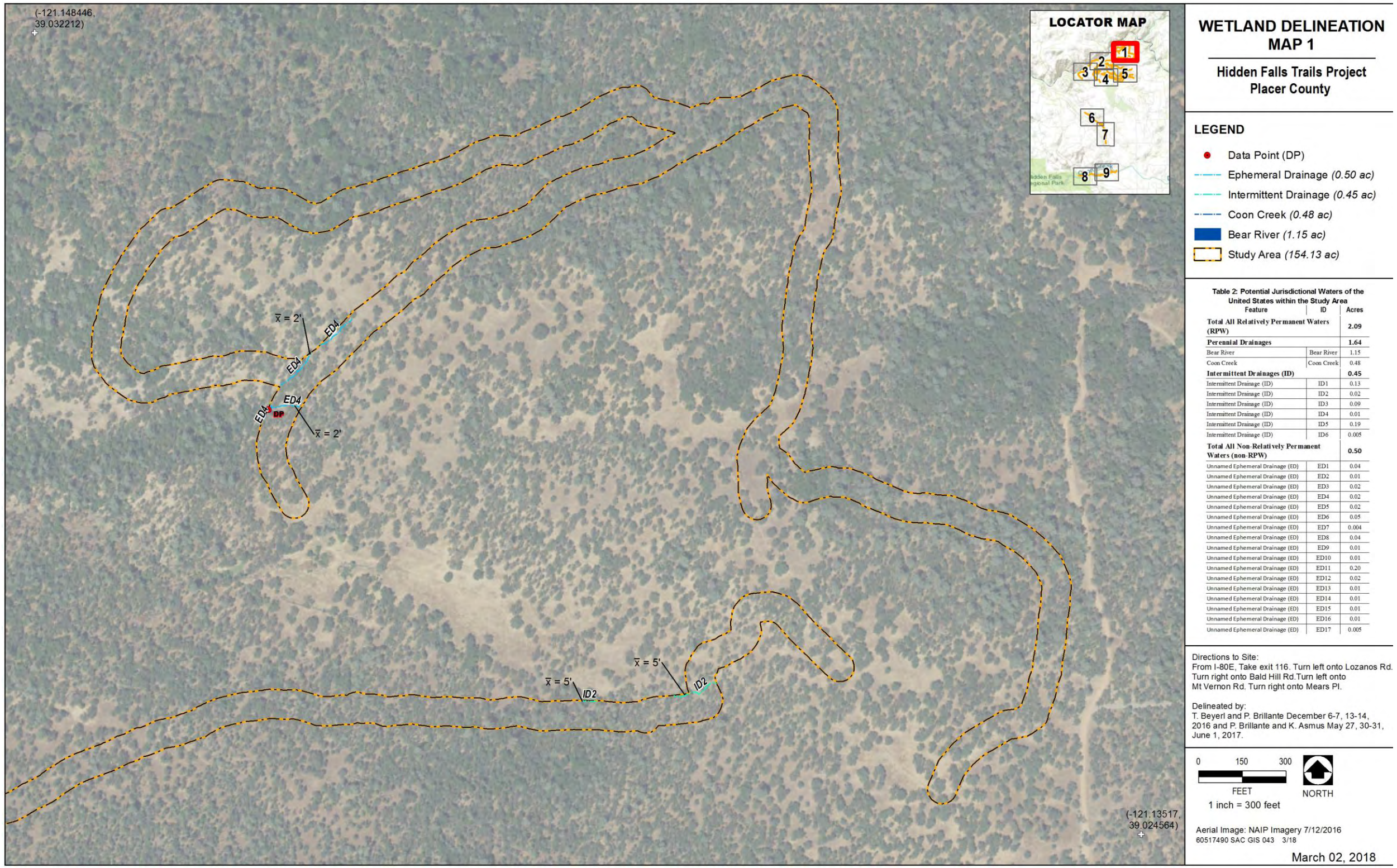


**Table 2: Potential Jurisdictional Waters of the United States within the Study Area**

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| **Intermittent Drainages (ID)** | | **0.45** |
| Intermittent Drainage (ID) | ID1 | 0.13 |
| Intermittent Drainage (ID) | ID2 | 0.02 |
| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Source: Data compiled by AECOM in 2017

**Figure A-1. Wetland Delineation Map**

**Table 2: Potential Jurisdictional Waters of the United States within the Study Area**

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
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| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Source: Data compiled by AECOM in 2017

**Figure A-2. Wetland Delineation Map**

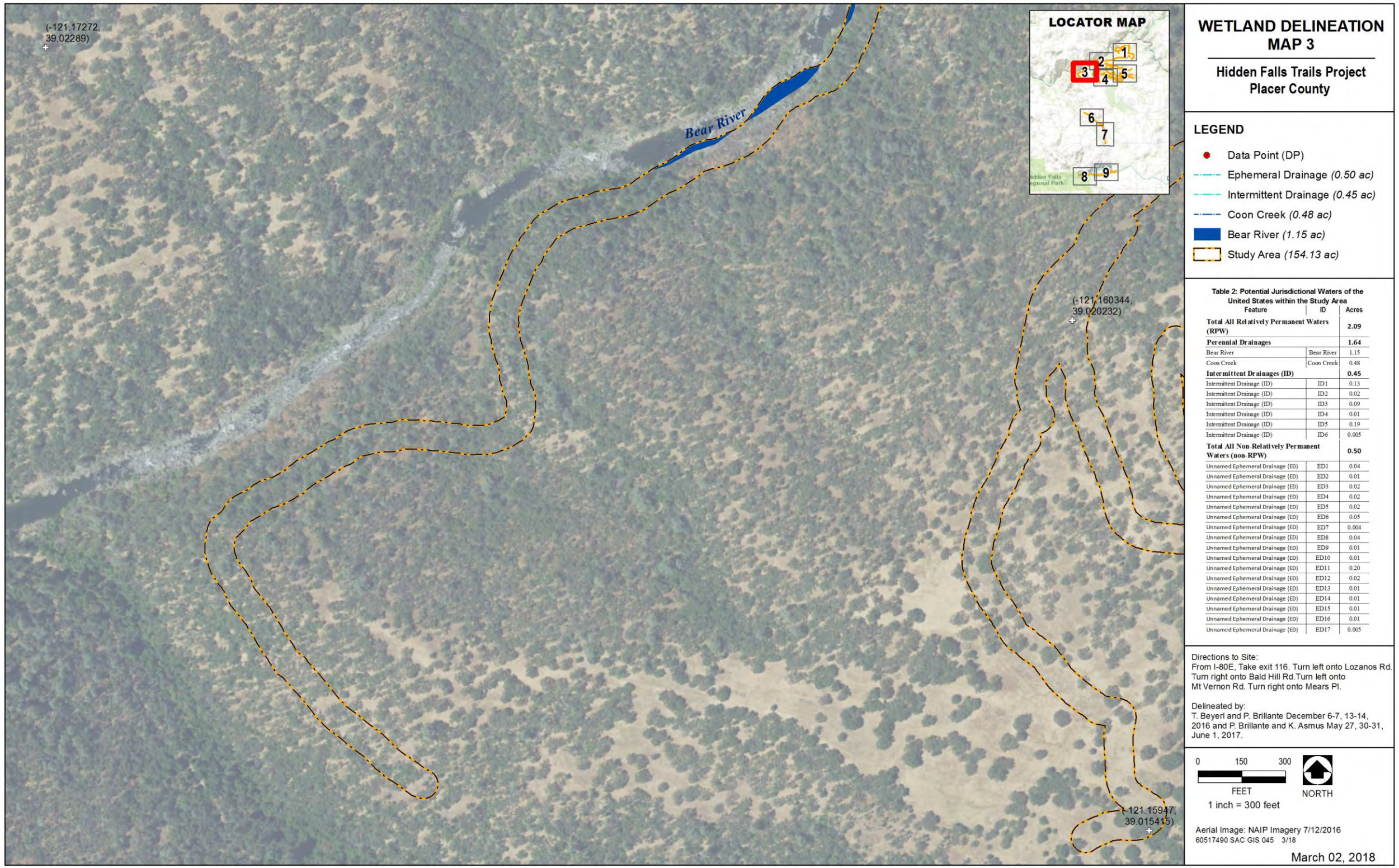



Table 2: Potential Jurisdictional Waters of the United States within the Study Area

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| **Intermittent Drainages (ID)** | | **0.45** |
| Intermittent Drainage (ID) | ID1 | 0.13 |
| Intermittent Drainage (ID) | ID2 | 0.02 |
| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Source: Data compiled by AECOM in 2017

**Figure A-3. Wetland Delineation Map**

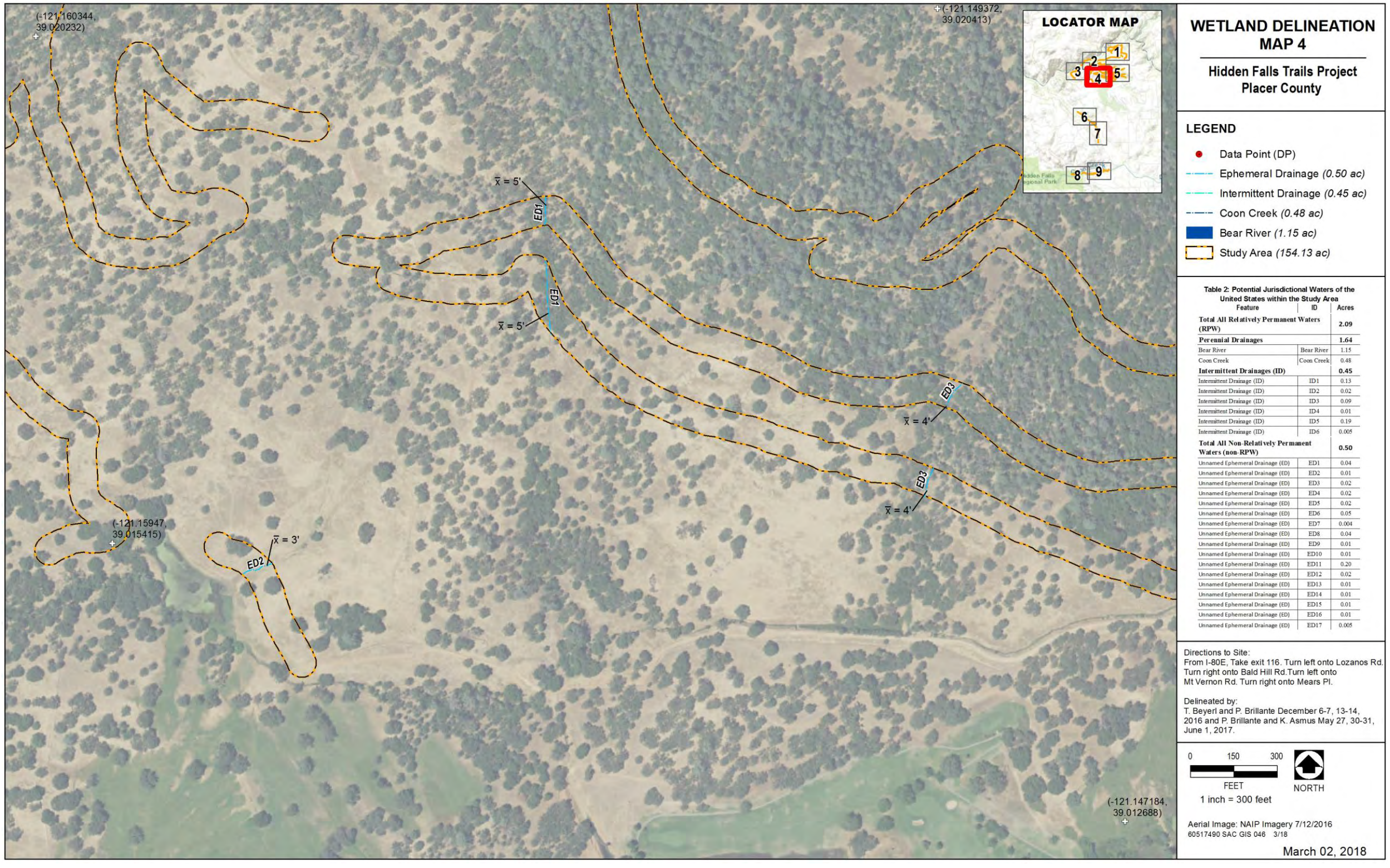
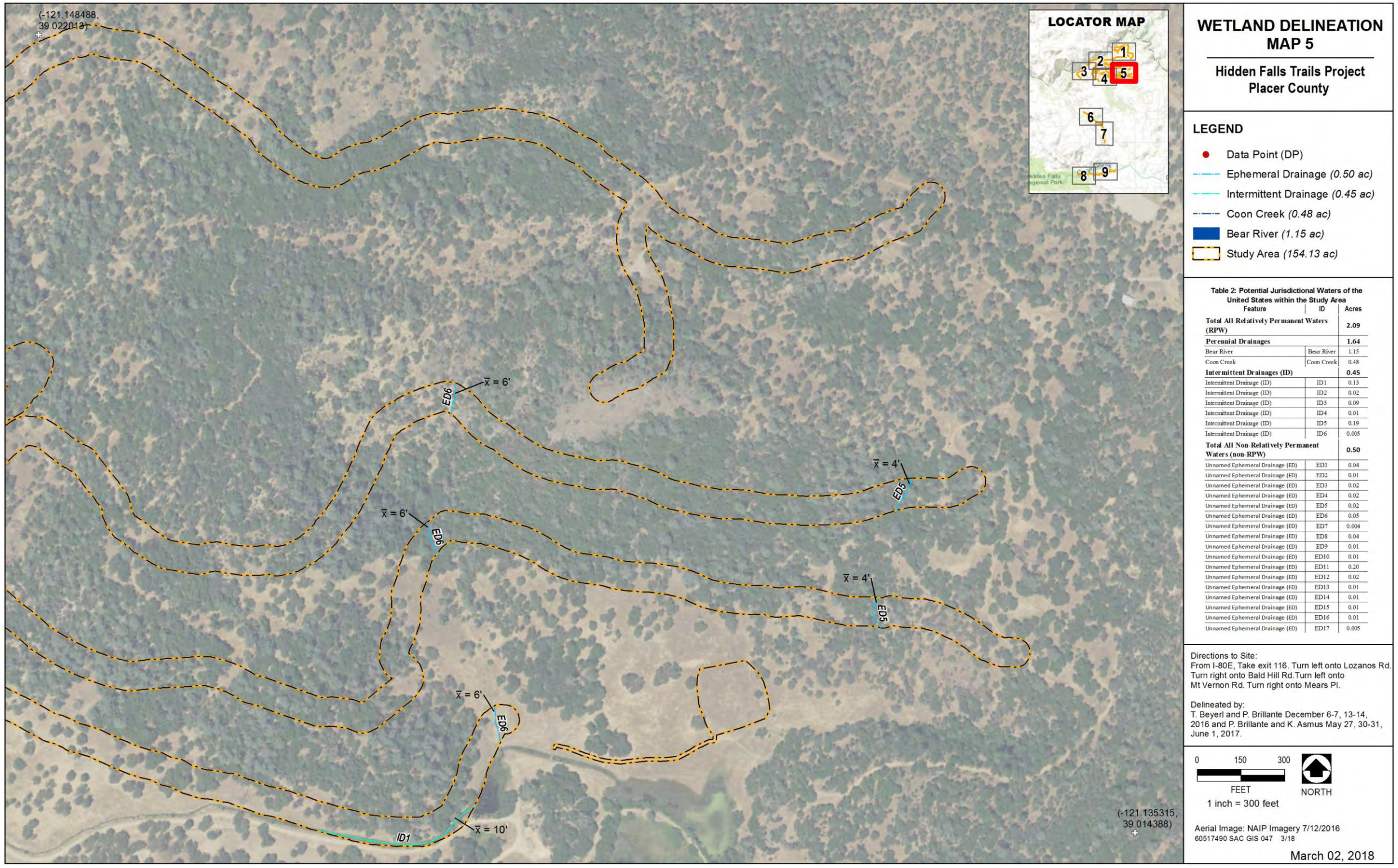



Table 2: Potential Jurisdictional Waters of the United States within the Study Area

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| **Intermittent Drainages (ID)** | | **0.45** |
| Intermittent Drainage (ID) | ID1 | 0.13 |
| Intermittent Drainage (ID) | ID2 | 0.02 |
| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Source: Data compiled by AECOM in 2017

**Figure A-4. Wetland Delineation Map**




# WETLAND DELINEATION MAP 5

**Hidden Falls Trails Project**
**Placer County**

## LEGEND

- Data Point (DP)
- Ephemeral Drainage *(0.50 ac)*
- Intermittent Drainage *(0.45 ac)*
- Coon Creek *(0.48 ac)*
- Bear River *(1.15 ac)*
- Study Area *(154.13 ac)*

**Table 2: Potential Jurisdictional Waters of the United States within the Study Area**

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| **Intermittent Drainages (ID)** | | **0.45** |
| Intermittent Drainage (ID) | ID1 | 0.13 |
| Intermittent Drainage (ID) | ID2 | 0.02 |
| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Directions to Site:
From I-80E, Take exit 116. Turn left onto Lozanos Rd. Turn right onto Bald Hill Rd.Turn left onto Mt Vernon Rd. Turn right onto Mears Pl.

Delineated by:
T. Beyerl and P. Brillante December 6-7, 13-14, 2016 and P. Brillante and K. Asmus May 27, 30-31, June 1, 2017.

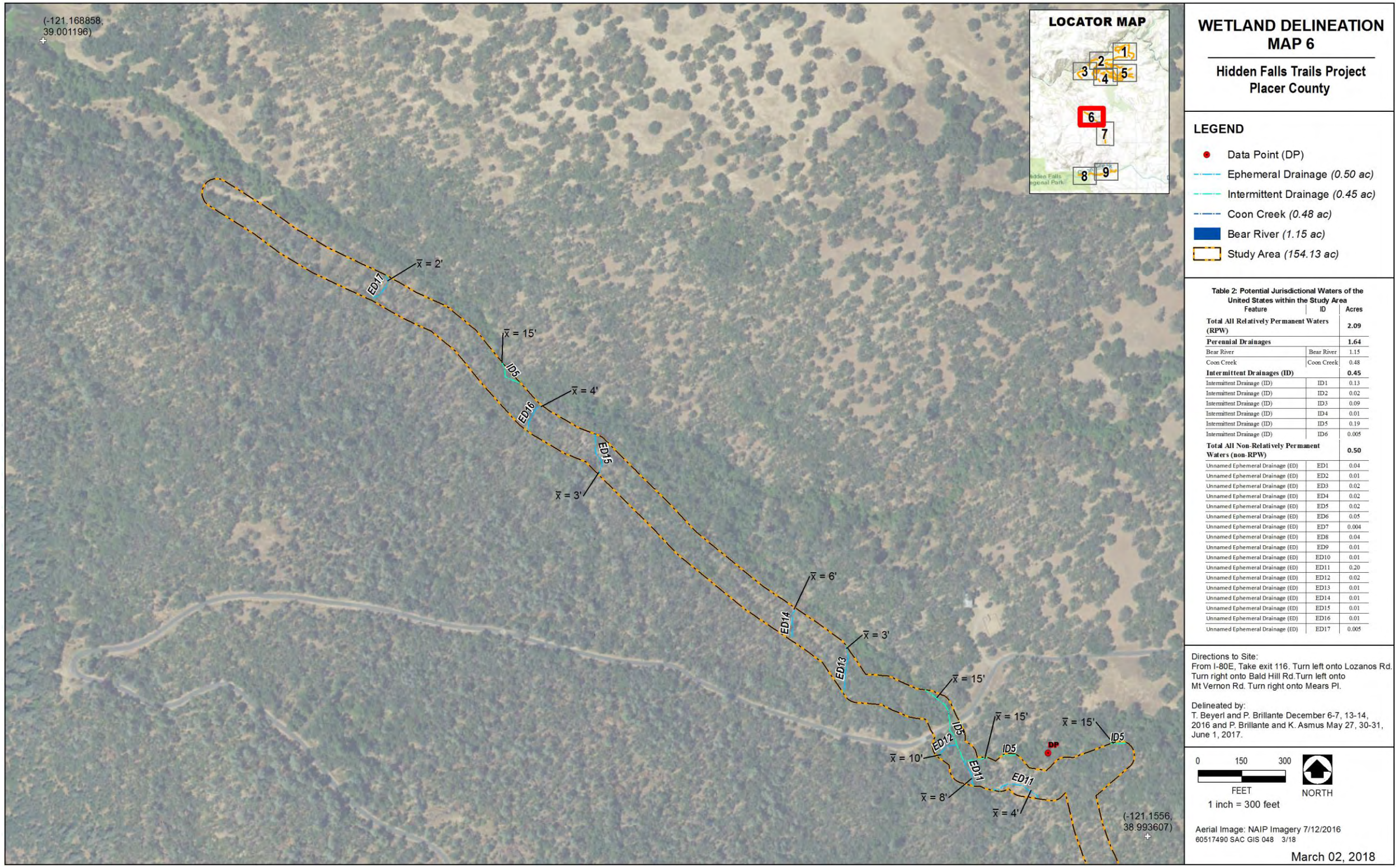
0 150 300
FEET
1 inch = 300 feet
NORTH

Aerial Image: NAIP Imagery 7/12/2016
60517490 SAC GIS 047 3/18

March 02, 2018

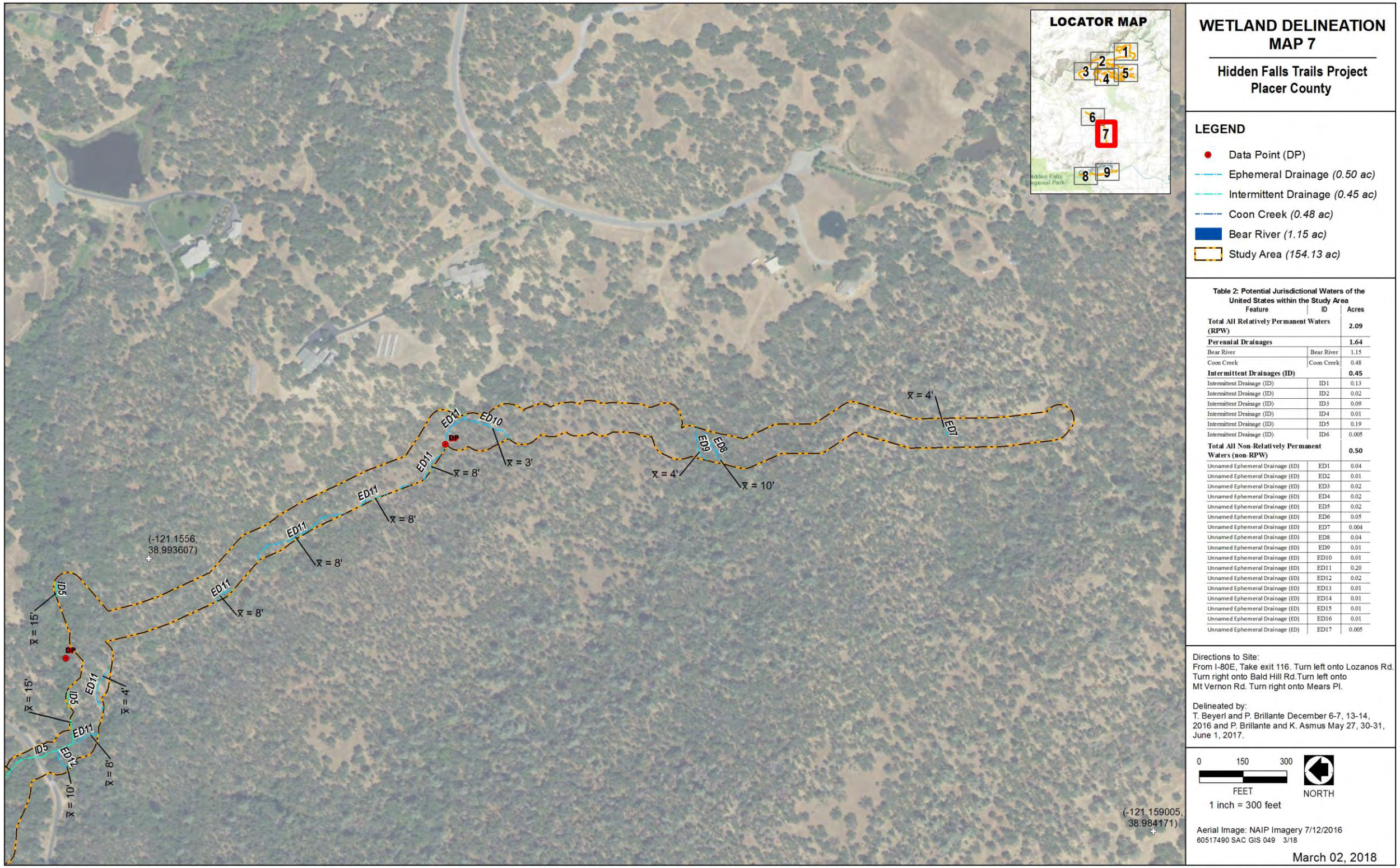
Source: Data compiled by AECOM in 2017

**Figure A-5. Wetland Delineation Map**




Source: Data compiled by AECOM in 2017

**Figure A-6. Wetland Delineation Map**




Source: Data compiled by AECOM in 2017

**Figure A-7. Wetland Delineation Map**

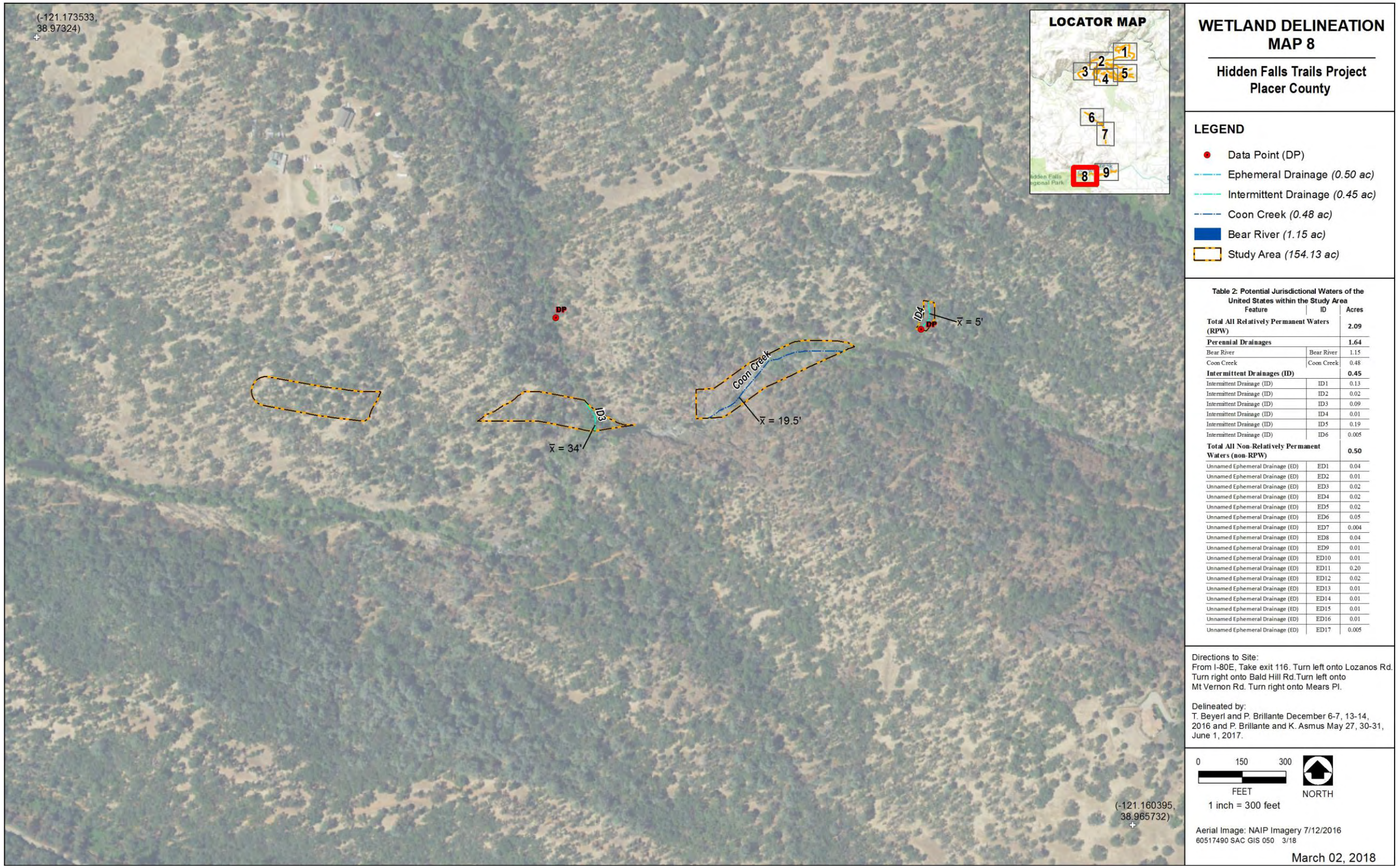



**Table 2: Potential Jurisdictional Waters of the United States within the Study Area**

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| **Intermittent Drainages (ID)** | | **0.45** |
| Intermittent Drainage (ID) | ID1 | 0.13 |
| Intermittent Drainage (ID) | ID2 | 0.02 |
| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Source: Data compiled by AECOM in 2017

**Figure A-8. Wetland Delineation Map**

Table 2: Potential Jurisdictional Waters of the United States within the Study Area

| Feature | ID | Acres |
|---|---|---|
| **Total All Relatively Permanent Waters (RPW)** | | **2.09** |
| **Perennial Drainages** | | **1.64** |
| Bear River | Bear River | 1.15 |
| Coon Creek | Coon Creek | 0.48 |
| **Intermittent Drainages (ID)** | | **0.45** |
| Intermittent Drainage (ID) | ID1 | 0.13 |
| Intermittent Drainage (ID) | ID2 | 0.02 |
| Intermittent Drainage (ID) | ID3 | 0.09 |
| Intermittent Drainage (ID) | ID4 | 0.01 |
| Intermittent Drainage (ID) | ID5 | 0.19 |
| Intermittent Drainage (ID) | ID6 | 0.005 |
| **Total All Non-Relatively Permanent Waters (non-RPW)** | | **0.50** |
| Unnamed Ephemeral Drainage (ED) | ED1 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED2 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED3 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED4 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED5 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED6 | 0.05 |
| Unnamed Ephemeral Drainage (ED) | ED7 | 0.004 |
| Unnamed Ephemeral Drainage (ED) | ED8 | 0.04 |
| Unnamed Ephemeral Drainage (ED) | ED9 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED10 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED11 | 0.20 |
| Unnamed Ephemeral Drainage (ED) | ED12 | 0.02 |
| Unnamed Ephemeral Drainage (ED) | ED13 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED14 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED15 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED16 | 0.01 |
| Unnamed Ephemeral Drainage (ED) | ED17 | 0.005 |

Source: Data compiled by AECOM in 2017

**Figure A-9. Wetland Delineation Map**

# **Appendix B** Data Forms

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Hidden Falls Expansion City/County: Placer Sampling Date: 12/6/16
Applicant/Owner: Placer County State: CA Sampling Point: ID1
Investigator(s): T. Beyerl, P. Brillante Section, Township, Range: _____
Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | Yes ____ No ____ | Is the Sampled Area within a Wetland? Yes ____ No ____ |
| Hydric Soil Present? | Yes ____ No ____ | |
| Wetland Hydrology Present? | Yes ____ No ____ | |

Remarks: Ponded area at convergence of ID2 and ED3
Pam's Photos 4:02, 4:03, 4:11, 4:13

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: ____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Salix laevigata | 1 | Y | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 1 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: ____)** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | | = Total Cover | |
| **Herb Stratum (Plot size: ____)** | | | |
| 1. Eleocharis macrostachya | 70 | Y | OBL |
| 2. Cyperus eragrostis | 10 | N | FACW |
| 3. Paspalum probably dilatatum FAC | 10 | N | FAC/FACW |
| 4. Rumex pulchra no a, -er | 2 | N | FAC |
| 5. Other | 3 | N | NL/UPL |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 95 | = Total Cover | |
| **Woody Vine Stratum (Plot size: ____)** | | | |
| 1. | | | |
| 2. | | | |
| | | = Total Cover | |

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust ____

**Dominance Test worksheet:**
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species ____ | x 1 = ____ |
| FACW species ____ | x 2 = ____ |
| FAC species ____ | x 3 = ____ |
| FACU species ____ | x 4 = ____ |
| UPL species ____ | x 5 = ____ |
| Column Totals: ____ (A) | ____ (B) |

Prevalence Index = B/A = ____

**Hydrophytic Vegetation Indicators:**
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes X No ____

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

## SOIL

Sampling Point: ID1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No _____

Remarks: No soil pit – point is a wetland/ponded area within the OHWM of an intermittent stream at convergence of an ephemeral stream

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ✓ No _____ Depth (inches): 24"

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Downstream of ED3 convergence, OHWM = 20 ft and is currently ponded to about 24" deep. At convergence, an area of wetland veg as noted on front. upstream of convergence, water in low-flow channel ≈ 6 ft wide & up to 10" deep, OHWM = 10 ft.

US Army Corps of Engineers

Arid West – Version 2.0

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Hidden Falls Expansion City/County: Placer County Sampling Date: 12/7/16

Applicant/Owner: Placer County State: _____ Sampling Point: ED4

Investigator(s): T. Beyerl, P. Brillante Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ | No _____ | **Is the Sampled Area within a Wetland?** Yes _____ No ✓ |
| Hydric Soil Present? | Yes _____ | No _____ | |
| Wetland Hydrology Present? | Yes _____ | No _____ | |

Remarks: Ephemeral Drainage OHWM = 2ft 12:13 looking upstream from fork
Pan's Photos 12:12 looking downstream from fork, 12:13 upstream

4
2
1
3
1
1

**VEGETATION – Use scientific names of plants.**

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Quercus douglasii | 3 | Y | NL/UPL |
| 2. Quercus wislizenii | 1 | Y | NL/UPL |
| 3. | | | |
| 4. | | | |
| | 4 | = Total Cover | |
| **Sapling/Shrub Stratum (Plot size: _____)** | | | |
| 1. Toxicodendron diversiloba | 2 | Y | FACU |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 2 | = Total Cover | |
| **Herb Stratum (Plot size: _____)** | | | |
| 1. Cynosurus echinatus | 25 | Y | NL/UPL |
| 2. Geranium molle | 30 | Y | NL/UPL |
| 3. Torilis | 10 | N | NL/UPL |
| 4. Bromus diandrus | 10 | N | NL/UPL |
| 5. Avena | 5 | N | NL/UPL |
| 6. Ranunculus californicus | 3 | N | FACU |
| 7. Vicia sativa | 2 | N | FACU |
| 8. Stellaria media | 5 | N | FACU |
| | 95 | = Total Cover | |
| **Woody Vine Stratum (Plot size: _____)** | | | |
| 1. | | | |
| 2. | | | |
| | | = Total Cover | |

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species _____ | x 1 = _____ |
| FACW species _____ | x 2 = _____ |
| FAC species _____ | x 3 = _____ |
| FACU species _____ | x 4 = _____ |
| UPL species _____ | x 5 = _____ |
| Column Totals: _____ (A) | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes _____ No ✓

Remarks: Grassy channel

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## SOIL

Sampling Point: ED4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR C**)
- __ 1 cm Muck (A9) (**LRR D**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- __ 1 cm Muck (A9) (**LRR C**)
- __ 2 cm Muck (A10) (**LRR B**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (TF2)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes _____ No _____

Remarks: No soil pit - feature is an ephemeral drainage delineated by OHWM

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1) (**Nonriverine**)
- __ Sediment Deposits (B2) (**Nonriverine**)
- __ Drift Deposits (B3) (**Nonriverine**)
- __ Surface Soil Cracks (B6)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- __ Biotic Crust (B12)
- __ Aquatic Invertebrates (B13)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- __ Water Marks (B1) (**Riverine**)
- __ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Shallow Aquitard (D3)
- __ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

**Wetland Hydrology Present?** Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Substrate boulder & mud

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**OHWM Delineation Cover Sheet** Page 1 of 2

**Project:** Hidden Falls **Date:** 12/13/16

**Location:** Placer County **Investigator(s):** T. Beyerl, P. Brillante

**Project Description:** Coon Creek

**Describe the river or stream's condition (disturbances, in-stream structures, etc.):**
Braided channel with ox bow, in-stream gravel bars vegetated with blackberry, willow, alder, grape

**Off-site Information**

**Remotely sensed image(s) acquired?** ☒ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:
aerial imagery

**Hydrologic/hydraulic information acquired?** ☐ **Yes** ☐ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

**List and describe any other supporting information received/acquired:**
Photos: Pam 11:20 (a) looking south (b) looking downstream

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Datasheet # Coon Creek **OHWM Delineation Datasheet** Page 2 of 2

**Transect (cross-section) drawing:** (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)

**Break in Slope at OHWM:** ☐ Sharp (> 60°) | ☐ Moderate (30–60°) | ☒ Gentle (< 30°) | ☐ None

Notes/Description:

**Sediment Texture:** Estimate percentages to describe the general sediment texture above and below the OHWM

| | Clay/Silt <0.05mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
|---|---|---|---|---|---|---|
| Above OHWM | 50 | 30 | 5 | 5 | 10 | |
| Below OHWM | 0 | 5 | 20 | 35 | 40 | |

Notes/Description:

**Vegetation:** Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|---|---|---|---|---|
| Above OHWM | 35 | 10 | 95 | 5 |
| Below OHWM | 10 | 45 | 5 | 40 |

Notes/Description: Below OHWM is a foothill riparian assemblage of alder, willow grape, blackberry, verbena, and very sparse Bermuda grass. Above OHWM is blue oak woodland with Toyon, live oak, Ceanothus, Bromus, Avena, Torilis

**Other Evidence:** List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Bank cutting, exposed roots, leaning vegetation

**OHWM Delineation Cover Sheet** Page 1 of 2

**Project:** Hidden Falls **Date:** 12/13/16

**Location:** Placer County **Investigator(s):** T. Beyerl, P. Brillante

**Project Description:** ID3

**Describe the river or stream's condition (disturbances, in-stream structures, etc.):**

**Off-site Information**

**Remotely sensed image(s) acquired?** ☐ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:

**Hydrologic/hydraulic information acquired?** ☐ **Yes** ☐ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

**List and describe any other supporting information received/acquired:**

Photos: 12:21 (2) upstream & downstream

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Datasheet # ID3 **OHWM Delineation Datasheet** Page 2 of 2

**Transect (cross-section) drawing:** (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)

OHWM ≐ 30 ft

**Break in Slope at OHWM:** ☐ Sharp (> 60°) | ☒ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description: Channel is steep with cascade pools and confined

**Sediment Texture:** Estimate percentages to describe the general sediment texture above and below the OHWM

| | Clay/Silt <0.05mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
|---|---|---|---|---|---|---|
| Above OHWM | ~~5~~ 70 | 15 | ~~20~~ 10 | ~~10~~ 2 | ~~50~~ 3 | |
| Below OHWM | 5 | 15 | 20 | 10 | 50 | |

Notes/Description: Boulder/bedrock channel with pocket of accumulated soil, sand, gravel
by steep slopes on each side

**Vegetation:** Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|---|---|---|---|---|
| Above OHWM | 10 | 25 | ~~6~~5 | 35 |
| Below OHWM | 15 | 10 | 2 | 73 |

Notes/Description: Foothill riparian rooted in channel; fig, alder, willow, blackberry, sparse grasses & ferns & moss on rocks
Live oak woodland above OHWM

**Other Evidence:** List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Cut banks

**OHWM Delineation Cover Sheet** Page 1 of 2

**Project:** Hidden Falls Expansion **Date:** 12/13/16

**Location:** Placer County **Investigator(s):** T. Beyerl, P. Brillante

**Project Description:** ID4

**Describe the river or stream's condition (disturbances, in-stream structures, etc.):**

**Off-site Information**

**Remotely sensed image(s) acquired?** ☐ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:

**Hydrologic/hydraulic information acquired?** ☐ **Yes** ☐ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

**List and describe any other supporting information received/acquired:**

Photos: 1:44 upstream & downstream

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Datasheet # ID4 **OHWM Delineation Datasheet** Page 2 of 2

**Transect (cross-section) drawing:** (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)

2 Photos 1:44

**Break in Slope at OHWM:** ☐ Sharp (> 60°) | ☒ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

**Sediment Texture:** Estimate percentages to describe the general sediment texture above and below the OHWM

| | Clay/Silt <0.05mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
|---|---|---|---|---|---|---|
| Above OHWM | 55 | 5 | 15 | 10 | 15 | |
| Below OHWM | 0 | 2 | 18 | 30 | 60 | |

Notes/Description:

**Vegetation:** Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|---|---|---|---|---|
| Above OHWM | 35 | 20 | 55 | 45 |
| Below OHWM | 5 | 35 | 5 | 55 |

Notes/Description: Blackberry, willow, cyperus, conyza in channel

live oak, tayon, blue oak, poison oak, grasses, torilis above OHWM

**Other Evidence:** List/describe any additional field evidence and/or lines of reasoning used to support your delineation

**OHWM Delineation Cover Sheet** Page 1 of 2

**Project:** Hidden Falls Expansion **Date:** 12/14/16

**Location:** Placer County **Investigator(s):** T. Beyerl, P. Brillante

**Project Description:** ED11

**Describe the river or stream's condition (disturbances, in-stream structures, etc.):**
wide ephemeral drainage in moderately steep topography between two slopes

**Off-site Information**

**Remotely sensed image(s) acquired?** ☒ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:
aerial imagery

**Hydrologic/hydraulic information acquired?** ☐ **Yes** ☐ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

**List and describe any other supporting information received/acquired:**
Photos: 1:52 (2) upstream & downstream

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Datasheet # ED11 **OHWM Delineation Datasheet** Page 2 of 2

**Transect (cross-section) drawing:** (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)

**Break in Slope at OHWM:** ☐ Sharp (> 60°) | ☒ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

**Sediment Texture:** Estimate percentages to describe the general sediment texture above and below the OHWM

| | Clay/Silt <0.05mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
|---|---|---|---|---|---|---|
| Above OHWM | 10 | 20 | 40 | 10 | 20 | |
| Below OHWM | — | 10 | 20 | 30 | 40 | |

Notes/Description: Cascading bedrock/boulder channel

**Vegetation:** Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|---|---|---|---|---|
| Above OHWM | 25 | 10 | 85 | 15 |
| Below OHWM | 15 | 10 | 30 | 70 |

Notes/Description:
Upland blue oak woodland vegetation above and below OHWM

**Other Evidence:** List/describe any additional field evidence and/or lines of reasoning used to support your delineation

**OHWM Delineation Cover Sheet** Page 1 of 2

**Project:** Hidden Falls Expansion **Date:** 12/14/16

**Location:** Placer County **Investigator(s):** T. Beyerl, P. Brillante

**Project Description:** ID5

**Describe the river or stream's condition (disturbances, in-stream structures, etc.):**

**Off-site Information**

**Remotely sensed image(s) acquired?** ☐ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:

**Hydrologic/hydraulic information acquired?** ☐ **Yes** ☐ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

**List and describe any other supporting information received/acquired:**

Photos: Mike 2:19 upstream & downstream
Pam's 2:09 upstream 2:10 downstream

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Datasheet # ID5 **OHWM Delineation Datasheet** Page 2 of 2

**Transect (cross-section) drawing:** (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)

**Break in Slope at OHWM:** ☐ Sharp (> 60°) | ☒ Moderate (30–60°) | ☐ Gentle (< 30°) | ☐ None

Notes/Description:

**Sediment Texture:** Estimate percentages to describe the general sediment texture above and below the OHWM

| | Clay/Silt <0.05mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
|---|---|---|---|---|---|---|
| Above OHWM | 40 | 15 | 25 | 10 | 10 | |
| Below OHWM | 0 | 5 | 45 | 20 | 30 | |

Notes/Description:

**Vegetation:** Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|---|---|---|---|---|
| Above OHWM | 40 | 15 | 90 | 10 |
| Below OHWM | 10 | 40 | 5 | 95 |

Notes/Description:
Foothill riparian below OHWM with scattered alder and dense blackberry. Above OHWM is blue oak woodland.

**Other Evidence:** List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Cut banks

**OHWM Delineation Cover Sheet** Page 1 of 2

**Project:** Hidden Falls Expansion **Date:** 6/2/17

**Location:** Placer County **Investigator(s):** K. ASMUS

Coon Creek Trib

**Project Description:**

#ID 6

**Describe the river or stream's condition (disturbances, in-stream structures, etc.):**

See notes other side

**Off-site Information**

**Remotely sensed image(s) acquired?** ☒ **Yes** ☐ **No** [If yes, attach image(s) to datasheet(s) and indicate approx. locations of transects, OHWM, and any other features of interest on the image(s); describe below] Description:

Viewable on Google Earth. Feature itself is obscured by vegetation

**Hydrologic/hydraulic information acquired?** ☐ **Yes** ☐ **No** [If yes, attach information to datasheet(s) and describe below.] Description:

**List and describe any other supporting information received/acquired:**

Photos taken

Instructions: Complete one cover sheet and one or more datasheets for each project site. Each datasheet should capture the dominant characteristics of the OHWM along some length of a given stream. Complete enough datasheets to adequately document up- and/or downstream variability in OHWM indicators, stream conditions, etc. Transect locations can be marked on a recent aerial image or their GPS coordinates noted on the datasheet.

Datasheet # 1D 6 **OHWM Delineation Datasheet** Page 2 of 2

**Transect (cross-section) drawing:** (choose a location that is representative of the dominant stream characteristics over some distance; label the OHWM and other features of interest along the transect; include an estimate of transect length)

**Break in Slope at OHWM:** ☐ Sharp (> 60°) | ☐ Moderate (30–60°) | ☒ Gentle (< 30°) | ☐ None

Notes/Description:

**Sediment Texture:** Estimate percentages to describe the general sediment texture above and below the OHWM

| | Clay/Silt <0.05mm | Sand 0.05 – 2mm | Gravel 2mm – 1cm | Cobbles 1 – 10cm | Boulders >10cm | Developed Soil Horizons (Y/N) |
|---|---|---|---|---|---|---|
| Above OHWM | / | / | / | / | 5 | Y |
| Below OHWM | 5 | / | 5 | 5 | 85 | N |

Notes/Description:

Cobble & boulder channel. Head starts in boundary, above but is swale. Drains into historic ditch. Breeches 20' away

**Vegetation:** Estimate absolute percent cover to describe general vegetation characteristics above and below the OHWM

| | Tree (%) | Shrub (%) | Herb (%) | Bare (%) |
|---|---|---|---|---|
| Above OHWM | 75 | 15 | 95 | 5 |
| Below OHWM | 75 | 15 | 5 | 95 |

Annual dissipates into sheet flow down to nearby Coon Creek

Notes/Description:

Buckeye, button willow / herb layer typ. of oak woodland elsewhere

**Other Evidence:** List/describe any additional field evidence and/or lines of reasoning used to support your delineation

Water stains, sediment, slight break from bed to bank

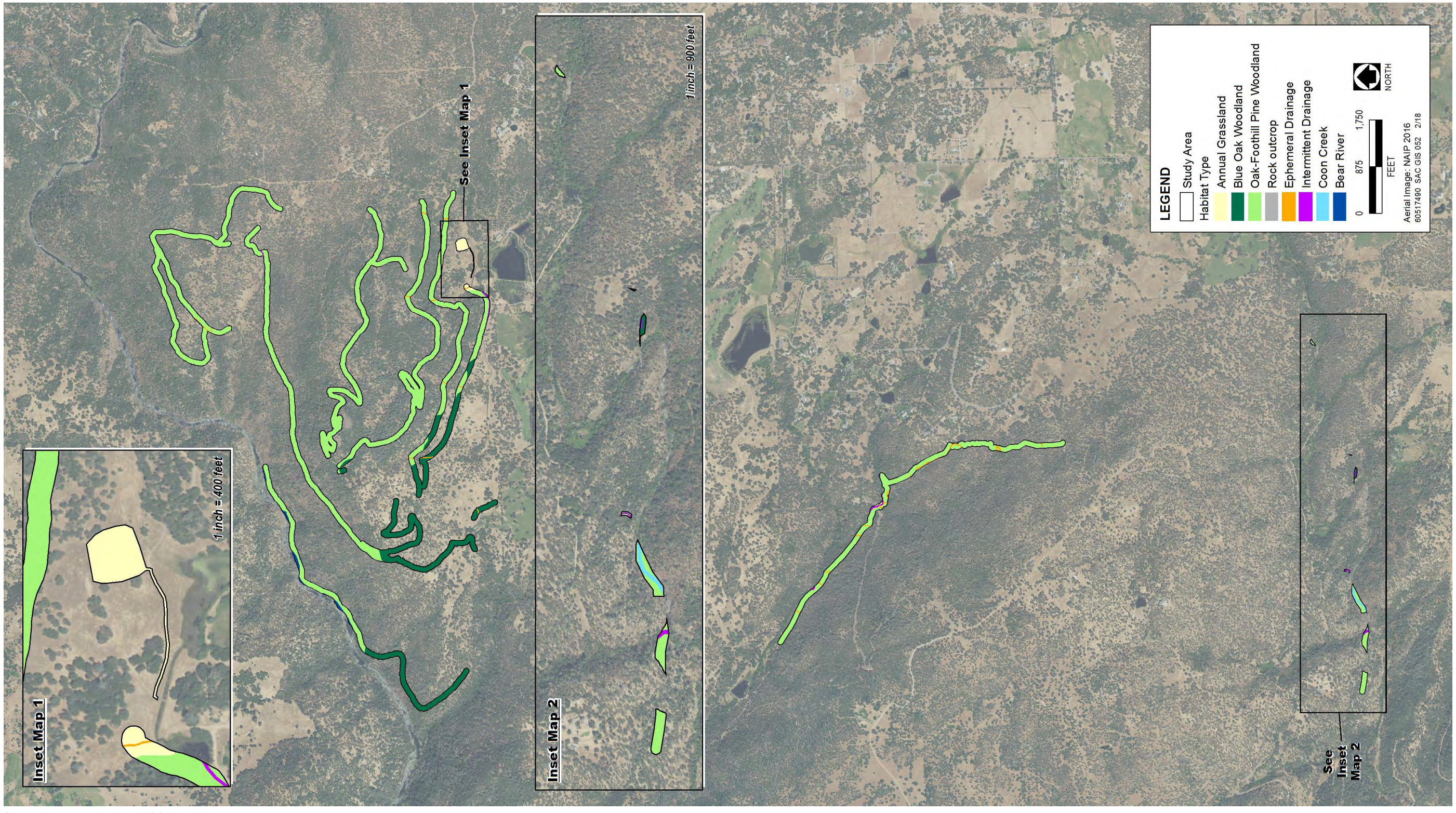
# **Appendix C** Aquatic Resources Table

## Table C-1. Aquatic Resources Table

| Waters Name | Cowardin Code | HGM Code | Measurement Type | Amount | Units Area | Units Linear | Waters Type | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| ED1 | CALIFORNIA | R4SB | RIVERINE | Area | 0.04 | ACRE | NRPW | 39.01772 | -121.15415 |
| ED2 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 39.015156 | -121.157716 |
| ED3 | CALIFORNIA | R4SB | RIVERINE | Area | 0.02 | ACRE | NRPW | 39.016748 | -121.149229 |
| ED4 | CALIFORNIA | R4SB | RIVERINE | Area | 0.02 | ACRE | NRPW | 39.029006 | -121.145312 |
| ED5 | CALIFORNIA | R4SB | RIVERINE | Area | 0.02 | ACRE | NRPW | 39.017592 | -121.138068 |
| ED6 | CALIFORNIA | R4SB | RIVERINE | Area | 0.05 | ACRE | NRPW | 39.017224 | -121.1438 |
| ED7 | CALIFORNIA | R4SB | RIVERINE | Area | 0.00 | ACRE | NRPW | 38.986088 | -121.154144 |
| ED8 | CALIFORNIA | R4SB | RIVERINE | Area | 0.04 | ACRE | NRPW | 38.988288 | -121.154329 |
| ED9 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 38.988414 | -121.154291 |
| ED10 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 38.990396 | -121.154048 |
| ED11 | CALIFORNIA | R4SB | RIVERINE | Area | 0.20 | ACRE | NRPW | 38.992193 | -121.155318 |
| ED12 | CALIFORNIA | R4SB | RIVERINE | Area | 0.02 | ACRE | NRPW | 38.994437 | -121.158043 |
| ED13 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 38.995201 | -121.159232 |
| ED14 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 38.995639 | -121.159872 |
| ED15 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 38.997246 | -121.162208 |
| ED16 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | NRPW | 38.997607 | -121.162989 |
| ED17 | CALIFORNIA | R4SB | RIVERINE | Area | 0.005 | ACRE | NRPW | 38.998833 | -121.164784 |
| ID1 | CALIFORNIA | R4SB | RIVERINE | Area | 0.13 | ACRE | RPW | 39.014431 | -121.144197 |
| ID2 | CALIFORNIA | R4SB | RIVERINE | Area | 0.02 | ACRE | RPW | 39.025947 | -121.140538 |
| ID3 | CALIFORNIA | R4SB | RIVERINE | Area | 0.09 | ACRE | RPW | 38.96963 | -121.166886 |
| ID4 | CALIFORNIA | R4SB | RIVERINE | Area | 0.01 | ACRE | RPW | 38.970533 | -121.162821 |
| ID5 | CALIFORNIA | R4SB | RIVERINE | Area | 0.19 | ACRE | RPW | 38.994615 | -121.157936 |
| ID6 | CALIFORNIA | R4SB | RIVERINE | Area | 0.005 | ACRE | RPW | 38.970029 | -121.156348 |
| Coon Creek | CALIFORNIA | R3RB | RIVERINE | Area | 0.48 | ACRE | RPW | 38.970009 | -121.16471 |
| Bear River | CALIFORNIA | R3RB | RIVERINE | Area | 1.15 | ACRE | TNWRPW | 39.02453 | -121.160766 |

Notes:
ED = ephemeral drainage; ID = intermittent drainage; NRPW = Non-RPWs that flow directly or indirectly into TNWs; RPW = Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs; TNWRPW = Tributary consisting of both RPWs and non-RPWs

# **Appendix D** Habitat Map




Source: Data compiled by AECOM in 2018

**Figure D-1. Habitat Map**

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# **Appendix E** Plant Species Observed List

## Table E-1. Plant List

| Scientific Name | Common Name | Indicator Status |
|---|---|---|
| *Achillea millefolium* var. *millefolium* | white yarrow | FACU |
| *Achyrachaena mollis* | blow wives | FAC |
| *Acmispon parviflorus* | hill lotus | NL |
| *Adiantum jordanii* | California maidenhair fern | FAC |
| *Aesculus californica* | California buckeye | NL |
| *Aira caryophyllea* | silver hairgrass | FACU |
| *Allium peninsulare* | Mexicali onion | NL |
| *Alnus rhombifolia* | white alder | FACW |
| *Amelanchier* sp. | serviceberry | NL |
| *Amsinckia menziesii* var. *intermedia* | fiddleneck | NL |
| *Artemisia douglasiana* | mugwort | FAC |
| *Asclepias cordifolia* | purple milkweed | NL |
| *Avena barbata* | slender wild oat | NL |
| *Avena fatua* | wild oat | NL |
| *Baccharis pilularis* | coyote brush | NL |
| *Bellardia trixago* | Mediterranean linseed | NL |
| *Briza minor* | little quaking grass | FAC |
| *Brodiaea elegans* ssp. *elegans* | elegant harvest brodiaea | FACU |
| *Bromus carinatus* var. *carinatus* | California brome | NL |
| *Bromus diandrus* | ripgut brome | NL |
| *Bromus hordeaceus* | soft chess | FACU |
| *Bromus laevipes* | woodland brome | NL |
| *Bromus madritensis* var. *rubens* | foxtail chess | UPL |
| *Calochortus albus* | white globelily | NL |
| *Calochortus superbus* | yellow Mariposa lily | NL |
| *Calycadenia multiglandulosa* | white rosin weed | NL |
| *Calystegia occidentalis* | western morning-glory | NL |
| *Carduus pycnocephalus* | Italian thistle | NL |
| *Castilleja affinis* ssp. *affinis* | paintbrush | NL |
| *Ceanothus integerrimus* | deer brush | NL |
| *Ceanothus leucodermis* | chapparal whitethorn | NL |
| *Centaurea melitensis* | Maltese star-thistle | NL |
| *Centaurea solstitialis* | yellow star-thistle | NL |
| *Cephalanthus occidentalis* | buttonbush | OBL |
| *Cercis occidentalis* | Western redbud | NL |
| *Chlorogalum pomeridianum* var. *pomeridianum* | common soap plant | NL |
| *Clarkia purpurea* ssp. *purpurea* | purple clarkia | NL |
| *Clarkia purpurea* ssp. *quadrivulnera* | four-spot | NL |

## Table E-1. Plant List

| Scientific Name | Common Name | Indicator Status |
|---|---|---|
| *Clarkia unguiculata* | elegant clarkia | NL |
| *Claytonia perfoliata* | miner's lettuce | NL |
| *Clematis lasiantha* | virgin's bower | NL |
| *Collinsia heterophylla* | Chinese-houses | NL |
| *Collinsia sparsiflora* var. *collina* | foothill collinsia | NL |
| *Croton setiger* | turkey-mullein | NL |
| *Cynodon dactylon* | Bermuda grass | FACU |
| *Cynosurus echinatus* | hedgehog dogtail | NL |
| *Cyperus eragrostis* | umbrella-sedge | FACW |
| *Dactylis glomerata* | orchard grass | FACU |
| *Daucus pusillus* | rattlesnake weed | NL |
| *Dichelostemma capitatum* | blue dicks | FACU |
| *Dichelostemma volubile* | snake lily | NL |
| *Dodecatheon hendersonii* | Henderson's shooting-star | NL |
| *Dudleya cymosa* ssp. *cymosa* | spreading live-forever | NL |
| *Eleocharis macrostachya* | creeping spikerush | OBL |
| *Elymus caput-medusae* | medusa head | NL |
| *Elymus glaucus* | blue wild rye | FACU |
| *Equisetum telmateia* ssp. *braunii* | giant horsetail | FACW |
| *Erigeron canadensis* | horseweed | FACU |
| *Eriophyllum lanatum* | woolly sunflower | NL |
| *Erodium botrys* | broadleaf filaree | FACU |
| *Erodium cicutarium* | red-stem filaree | NL |
| *Eschscholzia caespitosa* | foothill poppy | NL |
| *Eschscholzia californica* | California poppy | NL |
| *Festuca bromoides* | brome fescue | FACU |
| *Festuca myuros* | rattail sixweeks grass | FACU |
| *Festuca perennis* | rye grass | FAC |
| *Ficus carica* | edible fig | FACU |
| *Frangula californica* ssp. *tomentella* | hoary coffeeberry | NL |
| *Galium aparine* | bedstraw | FACU |
| *Galium murale* | yellow wall bedstraw | NL |
| *Geranium dissectum* | cut-leaved geranium | NL |
| *Geranium molle* | dove's foot geranium | NL |
| *Gilia capitata* | blue head gilia | NL |
| *Heteromeles arbutifolia* | toyon | NL |
| *Hordeum murinum* ssp. *leporinum* | foxtail barley | NL |
| *Hypericum perfoliatum* | St. Johnswort | FACU |

## Table E-1. Plant List

| Scientific Name | Common Name | Indicator Status |
|---|---|---|
| *Hypochaeris glabra* | smooth cat's-ear | NL |
| *Hypochaeris radicata* | rough cat's-ear | FACU |
| *Iris pseudacorus* | pale yellow iris | OBL |
| *Juncus bufonius* | toad rush | FACW |
| *Juncus effusus* | common rush | FACW |
| *Keckiella brevifolia* | gaping keckielia | NL |
| *Lactuca serriola* | prickly lettuce | FACU |
| *Lepidium nitidum* | common peppergrass | FAC |
| *Leptosiphon* sp. | leptosiphon | – |
| *Linum bienne* | common flax | NL |
| *Lonicera hispidula* | hairy honeysuckle | FACU |
| *Lonicera interrupta* | chaparral honeysuckle | NL |
| *Lupinus albifrons* | silver bush lupine | NL |
| *Lupinus nanus* | sky lupine | NL |
| *Luzula comosa* var. *subsessilis* | sessile wood-rush | NL |
| *Lysimachia arvensis* | scarlet pimpernel | FAC |
| *Madia elegans* ssp. *vernalis* | common tarweed | NL |
| *Madia glomerata* | mountain tarweed | NL |
| *Matricaria discoidea* | pineapple weed | FACU |
| *Melica californica* | California melicgrass | NL |
| *Mentha arvensis* | field mint | FACW |
| *Micropus californicus* var. *californicus* | cottontop | FACU |
| *Microseris acuminata* | microseris | NL |
| *Microsteris gracilis* | slender phlox | NL |
| *Mimulus cardinalis* | cardinal monkey flower | FACW |
| *Mimulus guttatus* | seep monkeyflower | OBL |
| *Monardella odoratissima* | coyote mint | FACU |
| *Muhlenbergia rigens* | deer grass | FAC |
| *Nasella pulchra* | purple needle grass | NL |
| *Nasturtium officinale* | watercress | OBL |
| *Navarretia intertexta* | needleleaved navarretia | FACW |
| *Navarretia pubescens* | downy pincushionplant | NL |
| *Navarretia tagetina* | marigold navarretia | FACW |
| *Osmorhiza berteroi* | sweetcicely | FACU |
| *Paspalum distichum* | knot grass | FACW |
| *Pentagramma triangularis* | goldenback fern | NL |
| *Perideridia kelloggii* | squawroot | NL |
| *Persicaria amphibia* | water smartweed | OBL |

## Table E-1. Plant List

| Scientific Name | Common Name | Indicator Status |
|---|---|---|
| *Petrorhagia dubia* | grass pink | NL |
| *Pinus ponderosa* | ponderosa pine | FACU |
| *Pinus sabiniana* | foothill pine | NL |
| *Plagiobothrys stipitatus* var. *micranthus* | stalked popcorn flower | FACW |
| *Plantago lanceolata* | English plantain | FAC |
| *Polystichum munitum* | western swordfern | FACU |
| *Populus fremontii* | Fremont cottonwood | FAC |
| *Psilocarphus tenellus* | slender woolly-marbles | OBL |
| *Quercus berberidifolia* | scrub oak | NL |
| *Quercus chrysolepis* | canyon live oak | NL |
| *Quercus douglasii* | blue oak | NL |
| *Quercus kelloggii* | black oak | NL |
| *Quercus lobata* | valley oak | NL |
| *Quercus wislizeni* | interior live oak | NL |
| *Ranunculus californicus* | California buttercup | FACU |
| *Rhamnus ilicifolia* | hollyleaf redberry | NL |
| *Rhus trilobata* | skunkbrush | FACU |
| *Ribes* sp. | gooseberry | – |
| *Rubus armeniacus* | Himalayan blackberry | FAC |
| *Rumex crispus* | curly dock | FAC |
| *Rumex pulcher* | fiddledock | FAC |
| *Salix exigua* | sandbar willow | FACW |
| *Salix laevigata* | red willow | FACW |
| *Salix lasiandra* var. *lasiandra* | Pacific willow | FACW |
| *Salix lasiolepis* | arroyo willow | FACW |
| *Scutellaria californica* | California skullcap | NL |
| *Senecio vulgare* | old-man-in-the-spring | FACU |
| *Sherardia arvensis* | field madder | NL |
| *Sidalcea* sp. | checkerbloom | – |
| *Silybum marianum* | blessed milkthistle | NL |
| *Sisymbrium officinale* | hedge mustard | NL |
| *Sisyrhinchium bellum* | blue-eyed grass | FACW |
| *Solanum* sp. | nightshade | – |
| *Spartium junceum* | Spanish broom | NL |
| *Stachys albens* | white hedge nettle | OBL |
| *Stellaria media* | common chickweed | FACU |
| *Symphoricarpos alba* var. *laevigatus* | snowberry | FACU |
| *Symphoricarpos mollis* | creeping snowberry | FACU |

## Table E-1. Plant List

| Scientific Name | Common Name | Indicator Status |
|---|---|---|
| *Torilis arvensis* | field hedge parsley | NL |
| *Toxicodendron diversilobum* | poison oak | FACU |
| *Tragopogon dubius* ssp. *dubius* | yellow salsify | NL |
| *Trifolium dubium* | little hop clover | UPL |
| *Trifolium fragiferum* | strawberry clover | FAC |
| *Trifolium hirtum* | red clover | NL |
| *Trifolium subterraneum* | subterranean clover | NL |
| *Trifolium willdenovii* | tomcat clover | FACW |
| *Triphysaria eriantha* | johnnytuck | NL |
| *Triphysaria versicolor* ssp. *faucibarbata* | yellow owl's-clover | NL |
| *Triteleia ixioides* | golden brodiaea | FAC |
| *Triteleia laxa* | Ithuriel's spear | NL |
| *Tritieleia hyacinthina* | white brodiaea | NL |
| *Typha angustifolia* | narrow-leaf cattail | OBL |
| *Urtica dioica* | stinging nettle | FAC |
| *Verbena bonariensis* | South American vervain | FACW |
| *Veronica peregrina* | neckweed | FAC |
| *Vicia sativa* | spring vetch | FACU |
| *Viola douglasii* | Douglas' violet | NL |
| *Vitis californica* | California grape | FACU |
| *Wyethia angustifolia* | narrowleaf mule ears | FACU |
| *Zeltnera muehlenbergii* | Monterey centaury | FAC |

Notes:

[1] Wetland indicator status based on the 2017 National Wetland Plant list for the Arid West Region (Lichvar et al. 2016)

OBL = Obligate Wetland—occurs with an estimated 99% probability in wetlands.

FACW = Facultative Wetland—estimated 67–99% probability of occurrence in wetlands.

FAC = Facultative—equally likely to occur in wetlands and nonwetlands (34–66% probability).

FACU = Facultative Upland—67–99% probability in nonwetlands, 1–33% in wetlands.

UPL = Obligate Upland—>99% probability in nonwetlands in this region.

NL = Species not listed.

– = Species could not be taxonomically identified below genus level.

Sources: Lichvar et al. 2016; compiled by AECOM in 2017–2018

# **Appendix F** Representative Photographs

Representative photograph of an NRPW (ED1) in the study area, December 6, 2016. Facing upstream.

Representative photograph of an NRPW (ED11) in the study area, December 14, 2016. Facing upstream.

## Appendix F. Representative Photographs

Representative photograph of an RPW (ID2) in the study area, December 6, 2016. Facing upstream.

Representative photograph of an RPW (ID5) in the study area, December 14, 2016. Facing downstream.

## Appendix F. Representative Photographs

Coon Creek at eastern proposed bridge crossing in the project area, main channel, December 14, 2016. Facing upstream.

Coon Creek at eastern proposed bridge crossing within the project area, side channel, December 14, 2016. Facing upstream.

## Appendix F. Representative Photographs

Access road to proposed parking area at the Harvego BRP, May 15, 2017. Facing east.

Representative photograph of blue oak woodland habitat, December 7, 2016. Facing northwest.

## Appendix F. Representative Photographs

Addendum to Special-Status Plant Surveys–Twilight Parcel

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

October 9, 2018

Lisa Carnahan, Parks Planner
Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603

**Subject: Addendum to Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project – Twilight Parcel, Placer County, California**

Dear Ms. Carnahan:

This letter report is an addendum to the *Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project, Placer County, California* report prepared by AECOM in September 2017 for the Placer County Public Works and Facilities Parks Division (AECOM 2017). In spring of 2018, AECOM conducted biological surveys for additional proposed new parking and trailhead access areas in the recently-acquired Twilight Ride property. This letter summarizes the methods and results of the special-status plant surveys. These surveys consisted of focused botanical surveys to identify occurrences of special-status plants that could be disturbed as a result of proposed improvments and construction. Special-status wildlife and aquatic resources are addressed in separate addendum letter reports.

## PROJECT LOCATION AND PROPERTY DESCRIPTION

The property is in western Placer County, south of the Bear River, approximately 40 miles northeast of Sacramento (Exhibit 1, Appendix A). The Placer Land Trust owns several preserves in the vicinity, including the Harvego Bear River and Outman Big Hill Preserves to the north, and the Kotomyan and Taylor Ranch Preserves to the west (Exhibit 2, Appendix A). As part of the Placer County Hidden Falls Regional Park (HFRP) Trails Network Expansion Project, the County is proposing parking and trailhead access from the Twilight Ride property (a.k.a. Twilight Parcel) on Bell Road to an existing trail system within the adjacent Taylor Ranch Preserve (Exhibit 2, Appendix A). The property is used as a private residence and pasture for goats and cattle. Existing features include an approximately 600-foot driveway, two rural residences, low-voltage power lines, barbed wire fencing, vehicle/equipment storage areas, several small outbuildings, and an excavated stock pond. Surrounding lands are primarily privately-owned and used for agriculture, grazing, and rural residences. The proposed project will involve enhancements to the existing driveway, and construction of parking facilities for vehicles and horse trailers. An additional area may be used for horse boarding/pasture. Proposed activities consist of road improvements (including two stream crossings) for the driveway, and preparation/grading of the areas to be used for parking (Exhibit 3, Appendix A).

## METHODS

Before conducting the field surveys, AECOM biologists compiled a list of special-status plant species with potential to occur on the property by performing database searches of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (Inventory) (CNPS 2018), the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2018), and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation project planning tool (USFWS 2018). The Gold Hill U.S. Geological Survey 7.5-minute

quadrangle and its eight surrounding quads—Rocklin, Pilot Hill, Auburn, Lake Combie, Wolf, Lincoln, Roseville, and Camp Far West—were included in the database record searches. A list of referenced background documents as well as the regulatory and environmental background for the project can be found in the *Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project, Placer County, California* report (AECOM 2017).

AECOM biologists Petra Unger and Kristin Asmus conducted focused special-status plant surveys on May 15, 2018. The surveys were focused on the proposed driveway improvements, drainage crossing, and potential parking and horse trailer areas (Exhibit 3, Appendix A). The protocols for the special-status plant surveys followed CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFG 2009) and U.S. Fish and Wildlife Service's (USFWS) *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000). All plants encountered during the special-status plant surveys were identified to the highest taxonomic level necessary for a rare plant determination. Nomenclature used follows the *Jepson Manual: Vascular Plants of California* (Jepson Manual) (Baldwin et al. 2012). Aquatic features were also identified and delineated and the data are presented in a separate report. Wildlife habitat assessment surveys occurred concurrently with the May 2018 floristic survey and those results are also presented in a separate report.

## RESULTS

### Habitats

Placer County is within the California Floristic Province, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The elevation of the property ranges from approximately 1,075 to 1,240 feet above mean sea level along gently sloping topography from southwest to northeast. The property lies within the Coon Creek watershed and is approximately 0.25 mile north of Coon Creek (USGS 2018).

Soil types within the property consist mostly of either Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes, or Auburn silt loam, 2 to 15 percent slopes, with a small section of Auburn-Argonaut-Rock outcrop complex, 2 to 15 percent slopes, in the southeast corner (NRCS 2018a). The Auburn series soil units are characterized by shallow to moderately deep, well-drained soils formed in material weathered from metabasic or metasedimentary rock, such as amphibolite schist, greenstone schist, or diabase. Depth to bedrock ranges from 10 to 28 inches, and rock outcrops are common. Runoff varies from low to very high (NRCS 2018b). Associated soils include the Sobrante and Argonaut series, which are weathered from igneous/metamorphic and meta-andesite rocks, respectively (NRCS 2018b). Only the Auburn-Argonaut-Rock outcrop complex, 2 to 15 percent slopes, is considered a hydric soil (NRCS 2014).

The property is dominated by annual grasslands with scattered blue oak (*Quercus douglasii*) and patches of blue oak woodland. Full descriptions of these habitats are available in the *Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project, Placer County, California* report (AECOM 2017). A complete list of plant species observed on the property is provided in Appendix B.

### Special-Status Plant Species

Searches of the CNPS and CNDDB databases identified 23 special-status plant species occurring in the vicinity of the property, and one species not reported in the database queries was documented within the Spears Ranch portion of the HFRP in a 2007 rare plant survey (Placer County 2007). The following 21 species were identified as having no potential to occur on the property because they are

either restricted to soils and habitat types that do not exist on the property or they are only found at elevations lower than those found on the property:

- Stebbin's morning glory (*Calystegia stebbinsii*), chapparal sedge (*Carex xerophila*), Pine Hill ceanothus (*Ceanothus roderickii*), Red Hills soap root (*Chlorogalum grandiflorum*), and Layne's ragwort (*Packera layneae*) are restricted to gabrro or serpentine soils, which do not occur on the property.

- Bisbee Peak rush-rose (*Crocanthemum suffrutescens*), El Dorado bedstraw (*Galium californicum* ssp*. sierrae*), and El Dorado County mule ears (*Wyethia reticulata*) are restricted to gabbro soils, which do not occur on the property, and are not known to occur in Placer County.

- Jepson's onion (*Allium jepsonii*) and big-scale balsamroot (*Balsamorhiza macrolepis*) are found on serpentine soils, which do not occur on the property.

- Dwarf downingia (*Downingia pusilla*), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*), Red Bluff dwarf rush (*J. leiospermus* var. *leiospermus*), legenere (*Legenere limosa*), and pincushion navarretia (*Navarretia myersii* spp. *myersii*) occur in vernal pool habitats, which do not occur on the property.

- Hispid bird's-beak (*Chloropyron molle* ssp. *hispidum)* is known to occur in Placer County only in damp alkaline meadows at an elevation of about 150 feet. These conditions are not present on the property.

- Butte County fritillary (*Fritillaria eastwoodiae*) occurs primarily in the northern foothills of the Sierra Nevada and Cascade Range. The southernmost known occurrences are found north of the property in Yuba County, where they occur at higher elevations in ponderosa pine forest.

- Dubious pea (*Lathyrus sulphureus* var. *argillaceus*) is not known to occur in Placer County. A single CNDDB occurrence in Placer County is not confirmed, has no record date, and the occurrence rank is unknown. Variety *argillaceu*s is not recognized in the Jepson Manual, and the elevation range for species *Lathyrus sulphureus* is outside the elevation range of the property.

- Mexican mosquito fern (*Azolla microphylla*) and Brazilian watermeal (*Wolffia brasiliensis*) are not known to occur above elevations of 330 feet, which is outside of the elevation range of the property.

A total of 3 special-status plant species have the potential to occur on the property and were the focus of these targeted surveys; Brandegee's clarkia (*Clarkia biloba* ssp. *brandegeeae*), Sierra monardella (*Monardella candicans*), and oval-leaved viburnum (*Viburnum ellipticum*). Table 1 summarizes the regulatory status, habitat and blooming period, and potential for occurrence on the property for Brandegee's clarkia, Sierra monardella, and oval-leaved viburnum. Habitat and elevation range information for these species was obtained from the CNPS Inventory and the Jepson Manual.

**Table 1. Special-Status Plants with Potential to Occur on the Twilight Ride Property - Hidden Falls Regional Park Trail Expansion Project – Twilight Parcel, Placer County, California**

| Species | | Status [1] | | | Habitat and Blooming Period | Potential for Occurrence |
|---|---|---|---|---|---|---|
| Common Name | Scientific Name | USFWS | CDFW | CRPR | | |
| Brandegee's clarkia | *Clarkia biloba* ssp. *brandegeeae* | — | — | 4.2 | Chaparral, cismontane woodland; often in road cuts; 700 to 3,000 feet elevation; blooms May to July | **Could Occur:** suitable habitat occurs on the property; not found during focused special-status plant surveys. |
| Sierra monardella | *Monardella candicans* | — | — | 4.3 | Chaparral, lower montane coniferous forest, cismontane woodland, 500 to 2,600 feet elevation; blooms April to July | **Could Occur:** suitable habitat occurs on the property; not found during focused special-status plant surveys. |
| Oval-leaved viburnum | *Viburnum ellipticum* | — | — | 2B.3 | Chaparral, cismontane woodland or lower montane coniferous forest; 600 to 4,000 feet elevation; blooms May to June | **Could Occur:** suitable habitat occurs on the property; not found during focused special-status plant surveys. |

Sources: Baldwin et al. 2012; CDFW 2018; CNPS 2018.
Notes
[1] California Native Plant Society's California Rare Plant Ranks (CRPR):
2B = Plants rare, threatened, or endangered in California, but more common elsewhere
4 = Plants of Limited Distribution - A watch list

Threat Ranks:
0.2 = Fairly endangered in California (20%–80% of occurrences are threatened)
0.3 = Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

***Brandegee's Clarkia***

Brandegee's clarkia, a member of the evening primrose family. Prior to 2017 this species was listed as a CRPR 1B.2 plant. However, determined to be more common than was once known, it is now listed as CRPR 4.2. Brandegee's clarkia is found in the central Sierra Nevada foothills between 804 and 2,904 feet above mean sea level in chaparral and woodland habitats, often on road-cuts. It is an annual herb with rose-pink flowers that blooms from May to July. The feature that distinguishes this subspecies from the other two subspecies of *Clarkia biloba* is the length of the notch at the tip of the petal. In Brandegee's clarkia, the notch is less than one-fifth of the petal length.

In spring 2017, populations of Brandegee's clarkia were abundantly distributed throughout the HFRP on north-facing slopes in openings in the black oak woodlands and along recently created trails (AECOM 2017). Brandegee's clarkia was most typically found on steep, north-facing slopes in the shade and in openings of black oak and foothill pine oak woodland, where common associate species include hedgehog dogtail (*Cynosorus echinatus*), field hedge parsley (*Torilis arvensis*), poison oak, blue wild rye (*Elymus glaucus*), and white globe lily (*Calochortus albus*).

No occurrences of Brandegee's clarkia were encountered on the property during the special-status plant surveys.

***Sierra Monardella***

Sierra monardella, a member of the mint family, is a CRPR List 4.3 plant. It is a small, annual plant with half-inch heads of white flowers that bloom from April to July. Sierra monardella grows on sandy or gravelly soils in oak woodland, chaparral, and ponderosa pine forest throughout the Sierra Nevada foothills.

A known occurrence of Sierra monardella was observed within HFRP in spring 2017 within openings of foothill pine-interior live oak woodland on the north side of Coon Creek. Populations consisted of tens of individuals occurring in moderately dense annual grassland on a low-gradient, southwest-facing terrace above the creek. Associate species included species typical of the annual grassland and surrounding woodlands such as bromes, lupines (*Lupinus* sp.), smooth cat's ears (*Hypochaeris glabra*), four spot (*Clarkia purpurea*), Ithuriel's spear (*Triteleia laxa*), needleleaf navarretia (*Navarretia intertexta*), and elegant harvest brodiaea (*Brodiaea elegans*).

No occurrences of Sierra monardella were encountered on the property during the special-status plant survey.

***Oval-leaved viburnum***

Oval-leaved viburnum, a member of the honeysuckle family, is a CRPR List 2B.3 species. It is a small- to medium-sized shrub with flat-topped, 1-inch wide, white inflorescences that bloom from May to June. Oval-leaved viburnum grows in chaparral, cismontane woodland, and ponderosa pine forest, generally on north-facing slopes in the northern and central Sierra Nevada foothills and in northwestern California. No populations of oval-leaved viburnum are known to occur in HFRP.

No occurrences of oval-leaved viburnum were encountered on the property during the special-status plant surveys. The surveys were conducted when oval-leaved viburnum would have been blooming and apparent if it were present.

## CONCLUSION

No populations of special-status plant species were identified during the special-status plant surveys conducted on the property. Brandegee's clarkia and Sierra monardella were observed within the Hidden Falls Regional Park during the special-status plant surveys in 2017, but these species were not detected on the Twilight Ride property.

If you have any questions or require additional information, please do not hesitate to call us at (916) 414-5800.

Sincerely,

Kristin Asmus
Senior Biologist

Attachments:
Appendix A: Exhibits
Appendix B: Plant Species Observed

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AECOM. 2017. *Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project, Placer County, California*. Prepared for Placer County Public Works and Facilities Parks Division, September 2017.

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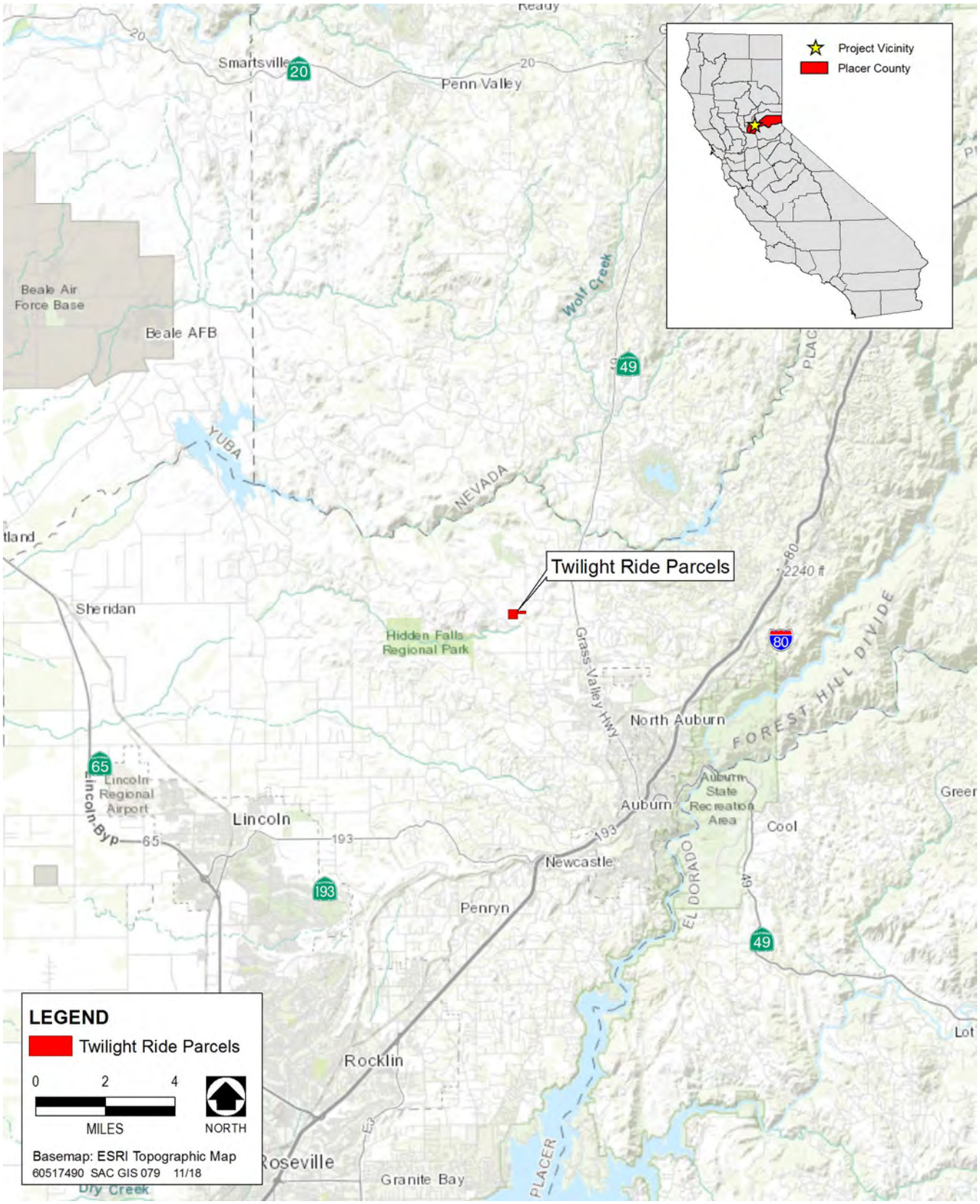
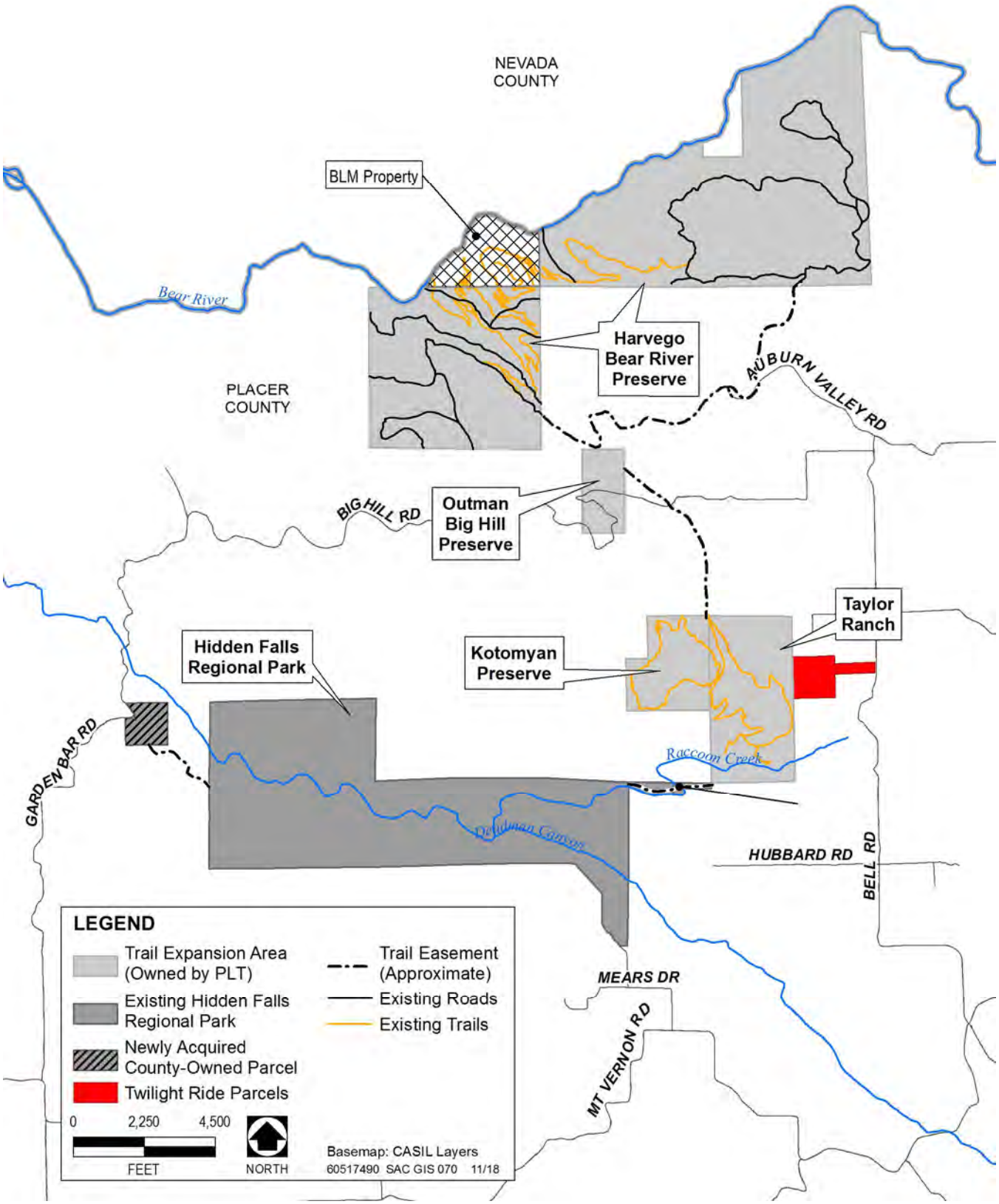
# APPENDIX A

Exhibits




Source: AECOM 2018.

**Exhibit 1. Project Location and Vicinity**




Source: AECOM 2018.

**Exhibit 2. Project Map**

AECOM

Source: AECOM 2018.

**Exhibit 3.** **Project Elements**

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# APPENDIX B

Plant Species Observed

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**Plant Species Observed on the Twilight Ride Property - Hidden Falls Regional Park Trail Expansion Project, Placer County, California, May 2018**

| Scientific Name | Common Name |
|---|---|
| *Amsinckia menziesii* var. *intermedia* | fiddleneck |
| *Avena fatua* | wild oat |
| *Azolla microphylla* | Mexican mosquito fern |
| *Brassica* sp. | mustard |
| *Briza minor* | little quaking grass |
| *Brodiaea elegans* | harvest brodiaea |
| *Bromus diandrus* | ripgut brome |
| *Bromus hordeaceus* | soft chess |
| *Capsella bursa-pastoris* | shephard's purse |
| *Carex nebrascensis* | Nebraska sedge |
| *Carduus pycnocephalus* | Italian thistle |
| *Castilleja attenuata* | Valley tassels |
| *Cirsium vulgare* | Bull thistle |
| *Cyperus eragrostis* | umbrella-sedge |
| *Deschampsia danthonioides* | annual hair grass |
| *Eleocharis acicularis* | needle spikerush |
| *Elymus caput-medusae* | medusa head |
| *Epilobium ciliatum* | willowherb |
| *Erodium botrys* | broadleaf filaree |
| *Eryngium castrense* | Great Valley coyote thistle |
| *Erythranthe guttata* | Yellow monkeyflower |
| *Eschscholzia californica* | California poppy |
| *Festuca arundinacea* | Reed fescue |
| *Festuca perennis* | rye grass |
| *Geranium dissectum* | cut-leaved geranium |
| *Holcus lanatus* | Common velvetgrass |
| *Hordeum marinum* var. *gussoneanum* | Mediterranean barley |
| *Hordeum murinum* var. *leporinum* | hare barley |
| *Hypochaeris radicata* | rough cat's-ear |
| *Juncus balticus* | Baltic rush |
| *Juncus effusus* | common rush |
| *Juncus patens* | spreading rush |
| *Juncus xiphioides* | iris leaved rush |
| *Lactuca serriola* | prickly lettuce |

**Plant Species Observed on the Twilight Ride Property - Hidden Falls Regional Park Trail Expansion Project, Placer County, California, May 2018**

| Scientific Name | Common Name |
|---|---|
| *Linum bienne* | flax |
| *Lotus corniculatus* | bird's foot trefoil |
| *Lupinus bicolor* | miniature lupine |
| *Madia elegans* ssp. *vernalis* | common tarweed |
| *Matricaria discoidea* | pineapple weed |
| *Mentha canadensis* | American cornmint |
| *Microseris acuminata* | microseris |
| *Nasturtium officinale* | watercress |
| *Navarretia pubescens* | purple navarretia |
| *Parentucellia* | parentucellia |
| *Perideridia kelloggii* | squawroot |
| *Petrorhagia dubia* | grass pink |
| *Plagiobothrys stipitatus* var. *micranthus* | stalked popcorn flower |
| *Plantago lanceolata* | English plantain |
| *Poa pratensis* | Kentucky blue grass |
| *Psilocarphus tenellus* | slender woolly-marbles |
| *Quercus douglasii* | blue oak |
| *Quercus wislizeni* | interior live oak |
| *Ranunculus californicus* | California buttercup |
| *Rubus armeniacus* | Himalayan blackberry |
| *Rumex crispus* | curly dock |
| *Rumex pulcher* | fiddledock |
| *Sagittaria lattifolia* | arrowhead |
| *Salix lasiolepis* | arroyo willow |
| *Scandix pectin-veneris* | Venus' needle |
| *Trifolium dubium* | little hop clover |
| *Trifolium hirtum* | red clover |
| *Trifolium subterraneum* | subterranean Clover |
| *Triteleia laxa* | Ithuriel's spear |
| *Tritieleia hyacinthina* | white brodiaea |
| *Typha angustifolia* | narrow-leaf cattail |
| *Veronica americana* | American brooklime |
| *Vicia sativa* | spring vetch |

Source: AECOM 2018.

# Addendum to Habitat Assessment for Special-Status Wildlife–Twilight Parcel

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

October 10, 2018

Lisa Carnahan, Parks Planner
Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603

**Subject: Addendum to Habitat Assessment for Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project – Twilight Parcel, Placer County, California**

Dear Ms. Carnahan:

This letter report is an addendum to the *Habitat Assessment for Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project* prepared by AECOM in September 2017 for the Placer County Public Works and Facilities Parks Division (AECOM 2017). In spring of 2018, AECOM conducted biological surveys for additional proposed new parking and trailhead access areas in the recently-acquired Twilight Ride property. This letter summarizes the results of reconnaissance-level wildlife surveys, including an assessment of potential habitat for special-status wildlife species. Special-status plant species and aquatic resources are addressed in separate addendum letter reports.

## PROJECT LOCATION AND PROPERTY DESCRIPTION

The property is in western Placer County, south of the Bear River, approximately 40 miles northeast of Sacramento (Exhibit 1, Appendix A). The Placer Land Trust owns several preserves in the vicinity, including the Harvego Bear River and Outman Big Hill Preserves to the north, and the Kotomyan and Taylor Ranch Preserves to the west (Exhibit 2, Appendix A). As part of the Placer County Hidden Falls Regional Park (HFRP) Trails Network Expansion Project, the County is proposing parking and trailhead access from the Twilight Ride property on Bell Road to an existing trail system within the adjacent Taylor Ranch Preserve (Exhibit 2, Appendix A). The property is used as a private residence and pasture for goats and cattle. Existing features include an approximately 600-foot driveway from Bell Road, two rural residences, low-voltage power lines, barbed wire fencing, vehicle/equipment storage areas, several small outbuildings, and an excavated stock pond. Surrounding lands are primarily privately-owned and used for agriculture, grazing, and rural residences. The proposed project will involve enhancements to the existing driveway, and construction of parking facilities for vehicles and horse trailers. An additional area may be used for horse boarding/pasture. Proposed activities consist of road improvements (including two stream crossings) for the driveway and preparation/grading of the areas proposed for parking (Exhibit 3, Appendix A).

## METHODS

Before the site surveys were conducted, AECOM biologists searched the following sources for records of special-status wildlife occurring within a nine-quadrangle area containing and surrounding the property: California Natural Diversity Database (CNDDB 2018) and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation project planning tool (USFWS 2018). The Gold Hill U.S. Geological Survey 7.5-minute quadrangle and its eight surrounding quads—Rocklin, Pilot Hill, Auburn, Lake Combie, Wolf, Lincoln, Roseville, and Camp Far West—were included in the database record searches. A list of referenced background documents as well as the regulatory and environmental background for the project can be found in the *Habitat Assessment for*

*Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project* (AECOM 2017).

AECOM biologists Petra Unger and Kristin Asmus conducted pedestrian surveys on the site, which consists of the approximately 50-acre Twilight Property Exhibit 3, Appendix A). Surveys were conducted on May 15, 2018 and were focused on the areas of proposed development, including the driveway and proposed parking lot areas. During the surveys, the weather conditions were sunny and warm with a high temperature of 77° Fahrenheit.

Habitats on the property were assessed to determine their potential to support special-status wildlife species at or near the property. The biologists surveyed the tree canopies within the property boundaries to search for suitable raptor and passerine nesting sites. Habitat for special-status amphibians and reptiles was surveyed by visually scanning any water features that cross the study area for appropriate water depth and flow rate, the substrates along the bottom of the water features, bank structure, and vegetation in the water features and along the banks. The habitat survey for meso-carnivores such as foxes and ringtails was focused on an assessment of potential burrow or denning habitat on the property. Aquatic features were also identified and delineated and the data are presented in a separate report. Floristic inventory surveys occurred concurrently with the May 2018 surveys and those results are also presented in a separate report.

## RESULTS

### Habitat

Placer County is within the California Floristic Province, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The elevation of the property ranges from approximately 1,075 to 1,240 feet above mean sea level, creating a gently sloping topography from southwest to northeast. The property lies within the Coon Creek watershed and is approximately 0.25 mile north of Coon Creek.

The property is dominated by annual grasslands with scattered blue oak (*Quercus douglasii*), and patches of blue oak woodland. Full descriptions of these habitats are available in the *Habitat Assessment for Special-Status Wildlife for the Hidden Falls Regional Park Trail Network Expansion Project* report (AECOM 2017).

The property also has three intermittent drainages that are tributary to Coon Creek, the two western drainages directly and the eastern drainage via Orr Creek. There are two inline, bermed stock ponds on the westernmost drainage, and a diversion pipe and offline stock pond associated with the east drainage. The central drainage bisects the property flowing north to south and is culverted under the existing dirt drive. On the center-east area of the property there is a seasonally wet slope supporting plant species characteristic of wetlands, and a second, similar seasonally wet area to the southwest of the western proposed parking area. The east and central drainages, as well as the south end of the west drainage support fairly dense riparian vegetation including willows and some larger trees, as well as areas of wetland vegetation.

### Special-Status Wildlife Species

Special-status wildlife species include animals in the following categories:

- Species listed by the State of California (State) or the federal government as endangered, threatened, or rare
- Candidates for State or federal listing as endangered or threatened

- Taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in California Code of Regulations Section 15380 of the CEQA Guidelines

- Species identified by the California Department of Fish and Wildlife (CDFW) as species of special concern

- Species listed as fully protected under the California Fish and Game Code

- Species afforded protection under local or regional planning documents

No confirmed special-status species were observed on or adjacent to the study area during the 2018 surveys. The database searches, literature review of previously prepared environmental documents, and knowledge of species occurring in the project region, including within HFRP and several of the surrounding PLT properties (AECOM 2017), identified 29 previously documented or reported special-status wildlife species in the region,. A total of 18 of these species known from the region have no potential to occur in the study area because the project area is outside of their elevation or geographical range or because suitable habitat (e.g., vernal pools) or critical habitat elements are not present. For these reasons, the following species were eliminated from further evaluation in this document:

- American peregrine falcon
- Bald eagle
- Bank swallow
- Burrowing owl
- California black rail
- California red-legged frog
- Foothill yellow-legged frog
- Golden Eagle
- Long-eared owl
- Northern harrier
- Purple martin
- Song sparrow (“Modesto” population)
- Steelhead, Central Valley Distinct Population Segment
- Swainson’s hawk
- Valley elderberry longhorn beetle
- Vernal pool tadpole shrimp
- Vernal pool fairy shrimp
- Western spadefoot

Table 1 provides a list of the remaining 11 special-status wildlife species that were determined to have some potential to occur on site based on the pre-field investigation (database and literature review). No special-status wildlife species were observed and none are known to occur at the site. Three bird species that may nest within or adjacent to the site include tricolored blackbird (*Aegeleius*, yellow warbler (*Dendroica petechial*), and loggerhead shrike. Other migratory bird species may also nest within or adjacent to the site.

**Table 1. Special-Status Wildlife Species Potentially Occurring at the Twilight Ride Property**

| Special-Status Species | | Regulatory Status (Federal; State) [1] | Habitat Requirements | Potential for Occurrence [2] |
|---|---|---|---|---|
| Common Name | Scientific Name | | | |
| **Amphibians/Reptiles** | | | | |
| Western pond turtle | *Emys marmorata* | SSC | Inhabits permanent and intermittent waters, including marshes, streams, rivers, ponds, and lakes with emergent logs or boulders for basking. Nests in sandy banks along large, slow-moving streams or upland in a variety of soils. | **Not likely to occur;** surveys conducted in 2005 within HFRP confirmed presence along Coon Creek. Drainages on site are small, ephemeral, and heavily shaded; however, the stock ponds on site provide suitable pond habitat. There is no suitable nesting habitat on site. |
| **Fish** | | | | |
| **Birds** | | | | |
| Tricolored blackbird (nesting) | *Agelaius tricolor* | SSC, SC | Colonial nester in cattails, bulrush, or blackberries associated with wetland or drainage habitats. Forages in grassland or cropland habitats. | **Could occur;** suitable nesting and foraging habitat present on site and in the vicinity around stock ponds and along drainages. |
| Grasshopper sparrow (nesting) | *Ammodramus savannarum* | SSC | Prefers short- to middle-height, moderately open grasslands with scattered shrubs. | **Not likely to occur;** marginally suitable nesting and foraging habitat is present in vicinity of the site in grasslands with scattered oak trees. |
| Yellow-breasted chat (nesting) | *Icteria virens* | SSC | Forages and nests in riparian thickets of willow and other brushy thickets near streams or other watercourses. | **Not likely to occur;** marginally suitable nesting habitat and suitable foraging habitat present on site. Suitable nesting and foraging habitat in vicinity of the site along Coon Creek and surrounding freshwater marshes and stock ponds. Observed in HFRP and Taylor Ranch during surveys conducted in 2007–2008. |
| Yellow warbler (nesting) | *Dendroica petechial* | SSC | Nests in trees or shrubs, particularly those with spines or thorns. Forages in open country. | **Could occur;** suitable nesting and foraging habitat present on site. Observed on Harvego BRP during surveys conducted in 2010–2013. |
| White-tailed kite (nesting) | *Elanus leacurus* | FP | Nests in riparian corridors along streams and rivers, small woodland patches, or isolated trees in open country and forages in nearby grasslands and fields. | **Not likely to occur;** marginally suitable nesting and foraging habitat present on site and suitable habitat in vicinity of the site in grasslands with scattered oak trees. |
| Loggerhead shrike (nesting) | *Lanius ludovicianus* | SSC | Nests in trees or shrubs, particularly those with spines or thorns. Forages in open country. | **Could occur;** suitable nesting and foraging habitat is present on and in vicinity of site in grasslands with blackberry thickets and scattered oak trees. |

**Table 1. Special-Status Wildlife Species Potentially Occurring at the Twilight Ride Property**

| Special-Status Species | | Regulatory Status (Federal; State) [1] | Habitat Requirements | Potential for Occurrence [2] |
|---|---|---|---|---|
| Common Name | Scientific Name | | | |
| **Mammals** | | | | |
| Pallid bat | *Antrozous pallidus* | SSC | Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats. Roosts in rocky outcrops, cliffs, crevices, trees, and snags. | **Not likely to occur;** marginally suitable roosting and suitable foraging habitat on site. Suitable foraging and roosting habitat is present in the vicinity. |
| Ringtail | *Bassariscus astutus* | FP | Prefers rocky habitats associated with water, including riparian canyons, caves, and mine shafts. Requires rock crevices, hollow trees, or snags for breeding or denning. Forages on ground, among rocks, in trees; usually near water. | **Not likely to occur;** suitable habitat occurs within the vicinity of the site. Ringtail prints were observed within the Harvego BRP during surveys conducted in 2010–2013. |
| Townsend's big-eared bat | *Corynorhinus townsendii* | SSC | Uses a variety of habitats throughout California, from sea-level to 10,000 ft. Requires caves, mines, tunnels, or other man-made structures for roosting. Forages in edge habitats along streams, adjacent to and within a variety of wooded habitats. These bats often travel large distances while foraging. | **Not likely to occur;** marginally suitable foraging habitat on site. Suitable foraging habitat is present in the vicinity and rock crevices in the vicinity may provide suitable roosting sites. |
| Western red bat | *Lasiurus blossevillii* | SSC | Roosts primarily in trees adjacent to streams, fields, or urban areas. Forages in open areas and edge habitats. | **Not likely to occur;** marginally suitable roosting and suitable foraging habitat on site. Suitable foraging and roosting habitat is present in the vicinity. |

Sources: CNDDB 2018; Placer County 2009; PLT 2007a, 2007b, 2007c, 2007d, 2007e, 2010, 2011, 2012, 2013; USFWS 2018; AECOM, 2018.

Notes

[1] Regulatory status definitions

Federal Endangered Species Act (ESA):
FE = federal endangered
FT = federal threatened

California Endangered Species Act (CESA):
FP = California fully protected
SC = State candidate for listing
SSC = California Species of Special Concern
ST = California state threatened

[2] Potential for occurrence definitions

- Not likely to occur: Species is unlikely to be present due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
- Could occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.
- Likely to occur: Suitable habitat is available and indicators observed that the species might be present.

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

## CONCLUSIONS AND RECOMMENDATIONS

Suitable habitat is present on site for a three special-status bird species that occur within the Sierra Nevada foothills. The habitat on site along the proposed driveway improvements and around proposed parking areas could potentially support these special-status species, particularly where proposed activities cross drainages. Drainages and aquatic habitat are afforded specific consideration through Section 1602 of the California Fish and Game Code, Section 404 of the Clean Water Act, and the State's Porter-Cologne Act, and construction in these areas may require a Section 404 permit from the U.S. Army Corps of Engineers, a 401 certification or waiver from the Central Valley Regional Water Quality Control Board, and a Lake and Streambed Alteration Agreement from CDFW. These permits and resource agency consultations would include requirements for avoidance and minimization measures to reduce the potential impacts of proposed activities on aquatic habitats and associated special-status wildlife species potentially occurring within the study area. The following Best Management Practices and other measures provide additional recommendations to avoid or minimize the potential adverse impacts of driveway improvements and construction of parking facilities on sensitive biological resources that may be present in the study area.

### Best Management Practices to Protect Aquatic Resources

- Discharge of pollutants into storm drains or watercourses from vehicle and equipment cleaning will be prohibited.
- Maintenance and refueling areas for equipment will be located a minimum of 50 feet from active stream channels in predesignated staging areas, except at an established commercial gas station or vehicle maintenance facility.
- Spill containment kits will be maintained on-site at all times during construction operations and/or staging or fueling of equipment.
- Dust control measures will include the use of water trucks and dust palliatives to control dust in excavation and fill areas and to cover temporary stockpiles when weather conditions warrant such action.
- Coir rolls or straw wattles that do not contain plastic or synthetic monofilament netting will be installed along or at the base of slopes during construction to capture sediment.
- Permanent erosion control measures, such as biofiltration strips and swales to receive stormwater discharges from the highway or other impervious surfaces will be implemented to the maximum extent practicable.
- Access routes and limits of construction will be clearly marked before initiation of construction or grading.
- All equipment will be maintained to prevent leaks of automotive fluids, such as gasoline, oils, or solvents, and a spill response plan will be prepared.
- Hazardous materials, such as fuels, oils, and solvents, will be stored in sealable containers in a designated location that is located at least 100 feet from wetlands and aquatic habitats.

**Avoidance/Minimization Measures for Special-Status Bird Species and Bird Species Protected under the Migratory Bird Treaty Act (including tricolored blackbird, yellow warbler, and loggerhead shrike):**

- Construction activity will occur outside the nesting season (February 15 to August 31). Alternatively, if construction cannot avoid the nesting season, preconstruction surveys for active nests of special-status birds and other birds protected by the Migratory Bird Treaty Act will be required before commencement of any project activities. The preconstruction survey will cover an area at least 250 feet from the footprint of the proposed construction activities and will be conducted by a qualified biologist within 14 days before project construction begins. If an active nest is detected, the qualified biologist will establish a no-construction buffer around the nest until nesting is verified to be complete. The size of the buffer can range from 50 to 250 feet, depending on the species of bird, nature of the project activity, the extent of existing disturbance in the area, and other relevant circumstances, as determined by a qualified biologist in coordination with CDFW.

If you have any questions or require additional information, please do not hesitate to call us at (916) 414-5800.

Sincerely,

Kristin Asmus
Senior Biologist

Attachments:
Appendix A: Exhibits

## REFERENCES

CDFW (California Department of Fish and Wildlife). 2018. A Guide to Wildlife Habitats of California. Accessed July 2018. https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats.

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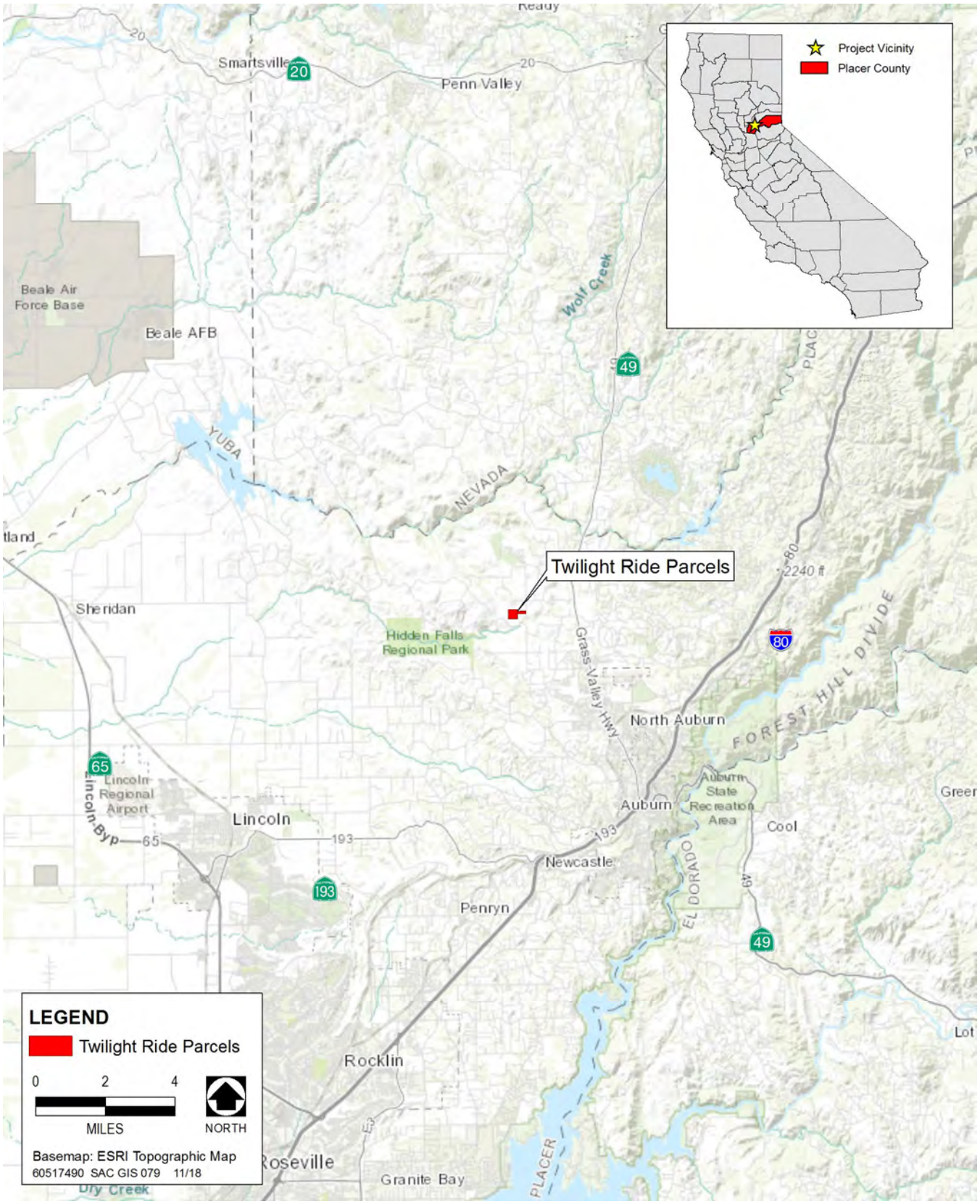
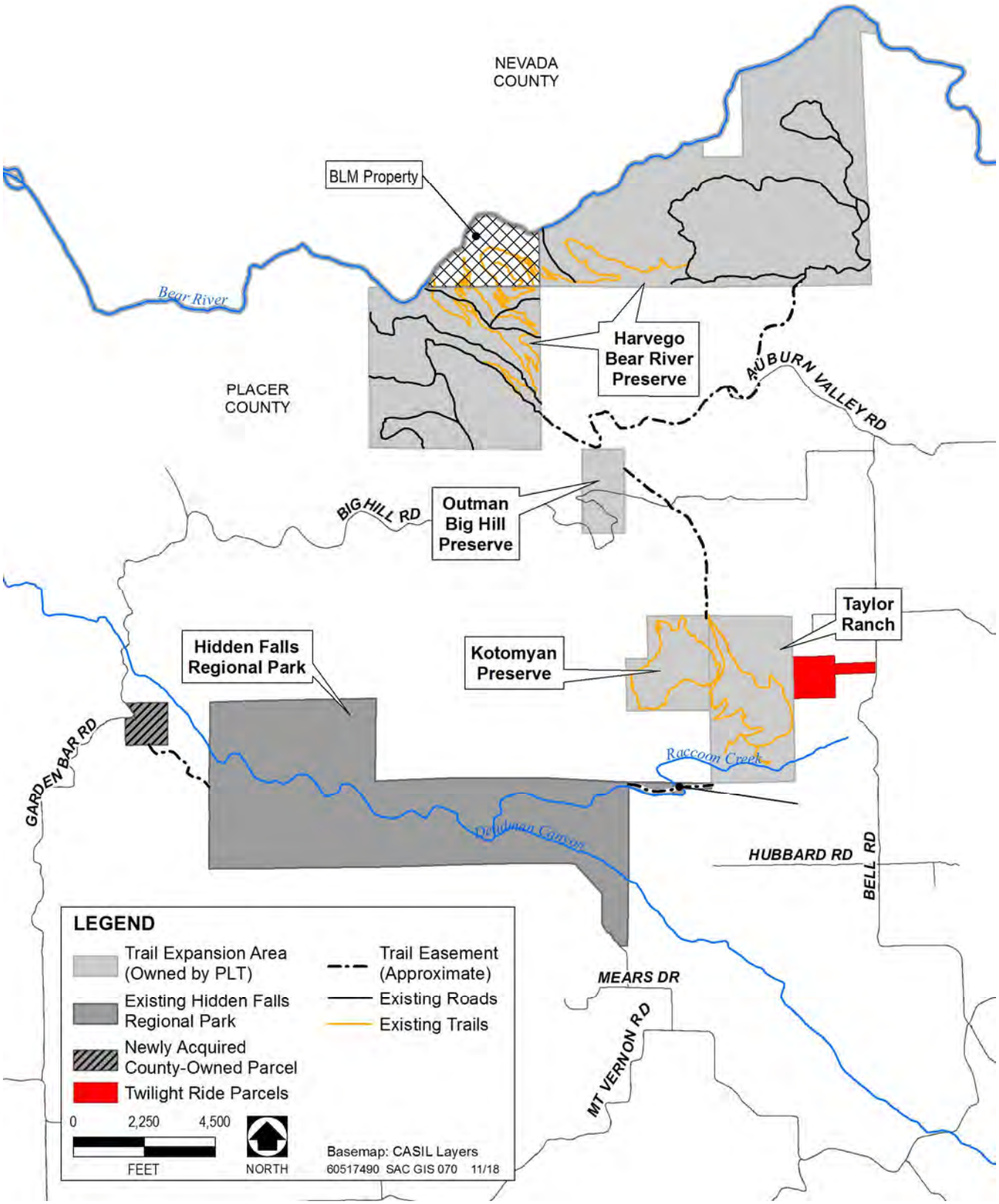
# APPENDIX A

Exhibits




Source: AECOM 2018.

**Exhibit 1. Project Location and Vicinity**




Source: AECOM 2018.

**Exhibit 2. Project Map**

AECOM

Source: AECOM 2018.

**Exhibit 3.** **Project Elements**

Addendum to Wetland Delineation Report–Twilight Parcel

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916.414.5800 tel
916.414.5850 fax

December 6, 2018

Lisa Carnahan, Parks Planner
Placer County Public Works and Facilities
Parks Division
11476 C Avenue
Auburn, CA 95603

**Subject: Addendum to Wetland Delineation Report for the Hidden Falls Regional Park Trail Network Expansion Project – Twilight Ride Property, Placer County, California**

Dear Ms. Carnahan:

This letter report is an addendum to the *Delineation of Wetlands and Other Waters of the United States, Hidden Falls Regional Park Trail Network Expansion Project* prepared by AECOM in March 2018 for the Placer County Public Works and Facilities Parks Division (AECOM 2018). In spring of 2018, AECOM conducted biological surveys for additional proposed new parking and trailhead access areas in the recently-acquired Twilight Ride property. This letter summarizes the results of the wetland delineation and preliminary jurisdictional determination. Special-status wildlife species and special-status plant species are addressed in separate addendum letter reports.

## PROJECT LOCATION AND PROPERTY DESCRIPTION

The property is in western Placer County, south of the Bear River, approximately 40 miles northeast of Sacramento (Exhibit 1, Appendix A). The Placer Land Trust owns several preserves in the vicinity, including the Harvego Bear River and Outman Big Hill Preserves to the north, and the Kotomyan and Taylor Ranch Preserves to the west (Exhibit 2, Appendix A). As part of the Placer County Hidden Falls Regional Park (HFRP) Trails Network Expansion Project, the County is proposing parking and trailhead access from the Twilight Ride property on Bell Road to an existing trail system within the adjacent Taylor Ranch Preserve (Exhibit 2, Appendix A). The property is used as a private residence and pasture for goats and cattle. Existing features include an approximately 600-foot driveway from Bell Road, two rural residences, low-voltage power lines, barbed wire fencing, vehicle/equipment storage areas, several small outbuildings, and an excavated stock pond. Surrounding lands are primarily privately-owned and used for agriculture, grazing, and rural residences. The proposed project will involve enhancements to the existing driveway, and construction of parking facilities for vehicles and horse trailers. An additional area may be used for horse boarding/pasture. Proposed activities consist of road improvements (including two stream crossings) for the driveway and preparation/grading of the areas proposed for parking (Exhibit 3, Appendix A).

## METHODS

Before the site surveys were conducted, an AECOM biologist reviewed color aerial imagery of the study area in Google Earth (Google 2018), as well as National Wetlands Inventory data and the U.S. Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2018a), to assist in locating areas of potential wetlands and waters. AECOM biologists Petra Unger and Kristin Asmus conducted pedestrian surveys and the wetland delineation at the site, which consists of the approximately 50-acre Twilight Property (Exhibit 3, Appendix A). Surveys were conducted on May 15, 2018 and were focused on the areas of proposed development, including the driveway and proposed parking lot areas. During the surveys, the weather conditions were sunny and warm with a high temperature of 77° Fahrenheit.

The U.S. Army Corps of Engineers (USACE) 1987 wetlands delineation manual (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a) were used to delineate wetlands potentially subject to USACE jurisdiction under Section 404 of the Clean Water Act (CWA). The 1987 manual and 2008 Arid West Supplement provide technical guidelines and methods for the three-parameter approach to determining the location and boundaries of jurisdictional wetlands. This approach requires that an area support positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology to be considered a jurisdictional wetland.

Waters of the United States were delineated based on the ordinary high-water mark (OHWM) using the OHWM field guide (Lichvar and McColley 2008). A drainage feature's OHWM typically corresponds with characteristics such as shelving, scour lines, and other natural linear features that define the bed and bank portion of the channel that floods under normal conditions (USACE 2005).

The *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* was consulted to aid the preliminary determination that an area would be subject to USACE jurisdiction under CWA Section 404 (USACE and EPA 2007). The significant nexus test—outlined in a memorandum jointly authored by the U.S. Environmental Protection Agency and USACE—was applied to each potentially jurisdictional habitat type (Grumbles and Woodley 2008).

Details on these methods as well as the regulatory and environmental background for the project can be found in the in *Preliminary Delineation of Waters of the United States, Including Wetlands for the Hidden Falls Regional Park Connectivity Project* (Placer County 2012) and *Delineation of Wetlands and Other Waters of the United States, Hidden Falls Regional Park Trail Network Expansion Project* (Placer County 2018).

## RESULTS

Placer County is within the California Floristic Province, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. The property is located within the Gold Hill U.S. Geological Service (USGS) 7.5 minute topographic quadrangle, Township 13N, Range 7E, Section 13 (Exhibit 4 Appendix A). The elevation of the property ranges from approximately 1,075 to 1,240 feet above mean sea level along gently sloping topography from southwest to northeast. The property lies within the Coon Creek watershed and is approximately 0.25 mile north of Coon Creek.

### Vegetation

The property is dominated by annual grasslands with scattered blue oak (*Quercus douglasii*) (Not Listed [NL]) and patches of blue oak woodland. Full descriptions of these habitats are available in the *Special-Status Plant Surveys for the Hidden Falls Regional Park Trail Expansion Project, Placer County, California* report (Placer County 2017). A map of habitats is provided as Exhibit 5 in Appendix A.

On the center-east area of the property there is a seasonally wet slope with vegetation dominated by umbrella sedge (*Cyperus eragrostis*) (Facultative Wetland [FACW]), spreading rush (*Juncus patens*) (FACW), and soft rush (*Juncus effusus*) (FACW). A second seasonally wet area to the southwest of the western proposed parking area is larger and supports a greater diversity of wetland indicator species. This area is dominated by facultative (Facultative [FAC]) grass species Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*) and Italian rye grass (*Festuca perennis*), with patches of Nebraska sedge (*Carex nebrascensis*) (Obligate [OBL]) and scattered Mexican rush (*J. mexicanus*) (FACW), spike rush (*Eleocharis macrostachya*) (OBL) and curly dock (*Rumex crispus*) (FAC).

Three drainages are present on the site and two support riparian vegetation. The central drainage is moderately vegetated with low thickets of Himalayan blackberry (*Rubus aremeniacus*) (FAC) and patches of wetland vegetation dominated by narrow-leaf cattails (*Typha angustifolia*) (OBL). There are scattered blue oaks along the drainage corridor. The eastern drainage has dense riparian vegetation including very tall thickets of arroyo willow (*Salix lasiolepis*) (FACW) and Himalayan blackberry, as well as areas of wetland vegetation including cattails, arrowhead (*Sagittaria latifolia*) (OBL), and water-cress (*Nasturtium officinale*) (OBL). A complete list of plant species observed on the property is provided in Appendix B.

**Soils**

Soil types within the property consist mostly of Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes and Auburn silt loam, 2 to 15 percent slopes, with a small section of Auburn-Argonaut-Rock outcrop complex, 2 to 15 percent slopes, found in the southeast corner (NRCS 2018a). Only the Auburn-Argonaut-Rock outcrop complex, 2 to 15 percent slopes, is considered a hydric soil (NRCS 2018b). A soils map is provided as Exhibit 6 in Appendix A.

Auburn soils typically occur on undulating to very steep foothills. Slopes range from 2 to 75 percent at elevations of 125–3,000 feet. Auburn soils are characterized by shallow to moderately deep, well-drained soils formed in material weathered from metabasic or metasedimentary rock, such as amphibolite schist, greenstone schist, or diabase. Depth to bedrock ranges from 10 to 28 inches, and rock outcrops are common. These soils, between the depths of 8 and 20 inches or to a lithic contact, are dry in all parts from June to mid-October and moist in all parts from mid-November to May. Runoff varies from low to very high (NRCS 2018c). They are taxonomically classified as loamy, mixed, superactive, thermic Lithic Haploxerepts.

Sobrante soils typically occur on foothills. Slopes range from 2 to 75 percent at elevations of 125–3,500 feet. Sobrante soils consist of moderately deep, well-drained soils derived from basic igneous and metamorphic rock. Depth to paralithic layer is 20 to 40 inches, depth to bedrock is 40 inches. The soils, between depths of about 5 to 15 inches, are usually moist but become dry in all parts in May or early June and remain dry until October to mid-November. Runoff is medium. They are taxonomically classified as fine-loamy, mixed, active, thermic Mollic Haploxeralfs.

Argonaut typically occur on ridges on foothills. Slopes range from 2 to 15 percent at elevations of 120-4,000 feet. Argonaut soils are shallow to moderately deep, well-drained soils formed from residuum weathered from metamorphic rock. Depth to a restrictive layer, bedrock, paralithic, is 25 to 29 inches. Available water to a depth of 60 inches or the restricted depth is low and shrink-swell potential is high. These soils, between depths of about 8 to 24 inches or to a paralithic contact, are dry in all parts from June to mid-October and are moist in all parts from mid-November to mid-May. Runoff is very high. They are taxonomically classified as fine, mixed, superactive, thermic Mollic Haploxeralfs

**Hydrology**

The study area is located within the Coon Creek watershed. There are three intermittent drainages on the property, two in the western portion, within the Deadman Canyon–Coon Creek Hydrologic Unit (USGS Hydrologic Unit Code [HUC] 180201610203) and one to the east in the Orr Creek Hydrologic Unit (HUC 180201610201) (USGS 2018). The boundary between the units runs north-south across the property approximately 480 feet from the eastern property boundary/Bell Road. There are two inline, bermed stock ponds on the westernmost drainage, and a diversion pipe and offline stock pond associated with the east drainage. The central drainage bisects the property flowing north to south and is culverted under the existing dirt drive. Approximately 0.40 miles south of the property boundary is the confluence of Orr Creek and dry Creek, which join to become Coon Creek. Coon Creek and all

drainages associated with Coon Creek flow to the East Side Canal, which flows into the Natomas Cross Canal to the Sacramento River, the nearest truly navigable water (TNW).

Natural hydrology on the site is driven primarily by direct precipitation and associated runoff into streams and channels. Precipitation in the area falls primarily as rain. Snow events are rare. The Auburn Station's Western Regional Climate Center precipitation gauge receives an average annual precipitation of 34.39 inches; in addition, the highest amounts of rainfall occur in November–March (WRCC 2018). The climate is characterized by a hot dry season and a cool wet season. Precipitation in the Sacramento River hydrologic region, American River Basin as measured at Auburn was at 65 percent of historic average for the October 2017–September 2018 water year (DWR 2018).

***National Wetlands Inventory (NWI)***

The U.S. Fish and Wildlife Service National Wetlands Inventory was queried for information regarding any wetlands previously mapped in the study area. The National Wetlands Inventory identifies all three stock ponds on the site as freshwater ponds. The two in-line ponds on the west are classified as PUBHh, and the eastern stock pond is classified as PUBFh (USFWS 2018). However, the western inline pond water regime modifier, H Permanently Flooded, would be more accurately described as E Seasonally Flooded or F Semipermanently Flooded.

## DELINEATION RESULTS

This section presents the results of the delineation of waters of the United States, as defined by USACE under CWA Section 404, for the project site. A total of 3.03 acres of potentially jurisdictional features are present in the study area. These features consist of three intermittent drainages, three stock ponds, and two wetlands. Exhibit 7 in Appendix A shows the location and extent of each of the potentially jurisdictional waters. Appendix C provides sample point data form sheets. Appendix D shows representative photographs of the delineated features. Appendix E is a table of the aquatic resources including linear feet of RPWs and acreage of seasonal wetlands. The delineation map provided in Appendix A was prepared in accordance with the Draft Map and Drawing Standards for the South Pacific Regulatory Program, Special Public Notice (USACE 2012). This map can be used by the County for regulatory permitting purposes pursuant to Section 404 of the Clean Water Act. These results are considered draft until verified by the USACE Sacramento District.

### Relatively Permanent Waters

Relatively permanent waters (RPWs) typically have continuous flow for at least 3 months of the year. The three intermittent drainages on the site are RPWs that are potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act because they are ultimately tributaries to and have a direct surface connection to, the Sacramento River. The western drainage, RPW1, is the westernmost drainage with two inline bermed stock ponds. This drainage originates at the top of a wide draw approximately 0.58 miles northwest of the site. Some sections are ill-defined, but sections where the drainage has an ordinary high water mark (OHWM) on site, the average width is approximately 3 feet and the bed is unconsolidated. The central drainage, RPW2, originates offsite approximately 0.37 miles to the north and flows generally north to south across the property. The average width of the OHWM is 4 feet. Approximately mid-property the drainage passes under an existing unimproved dirt road through two 24-inch metal pipe culverts. The bed is a mix of gravel, cobble and silt with occasional small boulders. RPW1 and RPW2 meet at a confluence just south of the property boundary and are tributary to Coon Creek.

The eastern drainage, RPW3, originates approximately 0.25 miles to the northeast and enters the property through a culvert under Bell Road. There is an offline stockpond to the east with a pump and diversion pipe at the north end. The average width of the drainage is approximately 8 feet and the bottom is unconsolidated. This drainage flows generally south to Orr Creek just before its confluence with Dry Creek to form Coon Creek.

**Seasonal Wetlands**

Three stock ponds are present comprising 1.62 acres. There are two inline ponds on RPW1 and one offline pond on RPW3. The inline ponds are relatively shallow and appear to dry down in the spring while the offline pond is deeper and retains water further into the summer. These ponds are considered to be potentially jurisdictional because they impound or are adjacent to potentially jurisdictional RPWs.

There are two seasonal slope wetlands on site comprising 1.19 acres. SW1 in the northwestern corner of the property originates in a small draw just north of the property boundary. This wetland is situated upslope of RPW1 and is considered to be potentially jurisdictional because it is adjacent to potentially jurisdictional RPW1. SW2 at the center-east area of the property seems to originate on site, though there is no seep or other apparent source. This wetland's waters move downslope to the southwest, south, and then southeast offsite toward RPW3. This wetland is considered to be potentially jurisdictional because it has a significant nexus to potentially jurisdictional RPW3. The data forms in Appendix C provide information about these wetlands.

## CONCLUSION

The study area totals approximately 50 acres. Of this total, 3.03 acres are potentially jurisdictional features. RPW1 (0.04 acre, 552.73 linear feet), RPW2 (0.13 acre, 1,392.62 linear feet) and RPW3 (0.05 acre, 256.81 linear feet) are likely subject to USACE jurisdiction under Section 404 of the CWA. These features exhibit a defined bed, bank, and channel. They also have a clearly identifiable OHWM and are tributary to Coon Creek, which has a direct surface connection to the East Side Canal, the Natomas Cross Canal, and ultimately to the TNW Sacramento River. Pond 1 (0.46 acre) and Pond 2 (0.81 acre) are abutting/impounding RPW1, SW1 (0.48 acre) is adjacent to RPW1, and Pond 3 (0.35 acre) is adjacent to RPW3, and these pond and seasonal wetland features are therefore likely subject to USACE jurisdiction under Section 404 of the CWA due to their proximity to RPWs with direct surface connection to a TNW. SW 2 (0.71 acre) has a significant nexus to RPW3, which has a direct surface connection to a TNW, and is therefore considered likely subject to USACE jurisdiction under Section 404 of the CWA.

Blue oak woodland and annual grassland lack one or more criteria that define wetlands and are located above an OHWM. These habitats are generally not regulated by USACE under CWA Section 404. This jurisdictional determination is considered draft and contingent on verification by the USACE Sacramento District.

If you have any questions or require additional information, please do not hesitate to call us at (916) 414-5800.

Sincerely,

Kristin Asmus
Senior Biologist

Appendix A: Exhibits
Appendix B: Plant Species Observed
Appendix C: Sample Point Data Forms
Appendix D: Representative Photographs
Appendix E: Aquatic Resources Upload Excel Table

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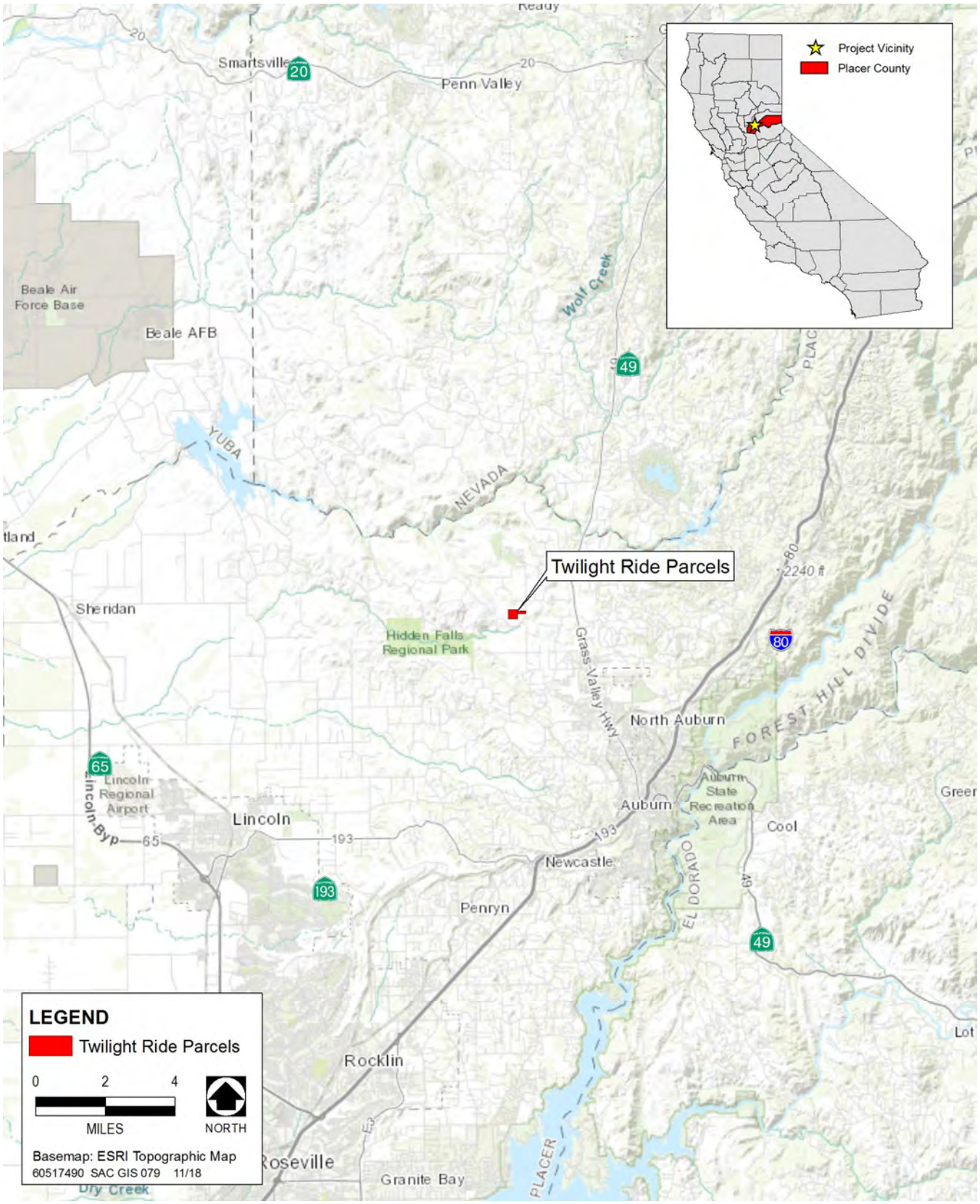
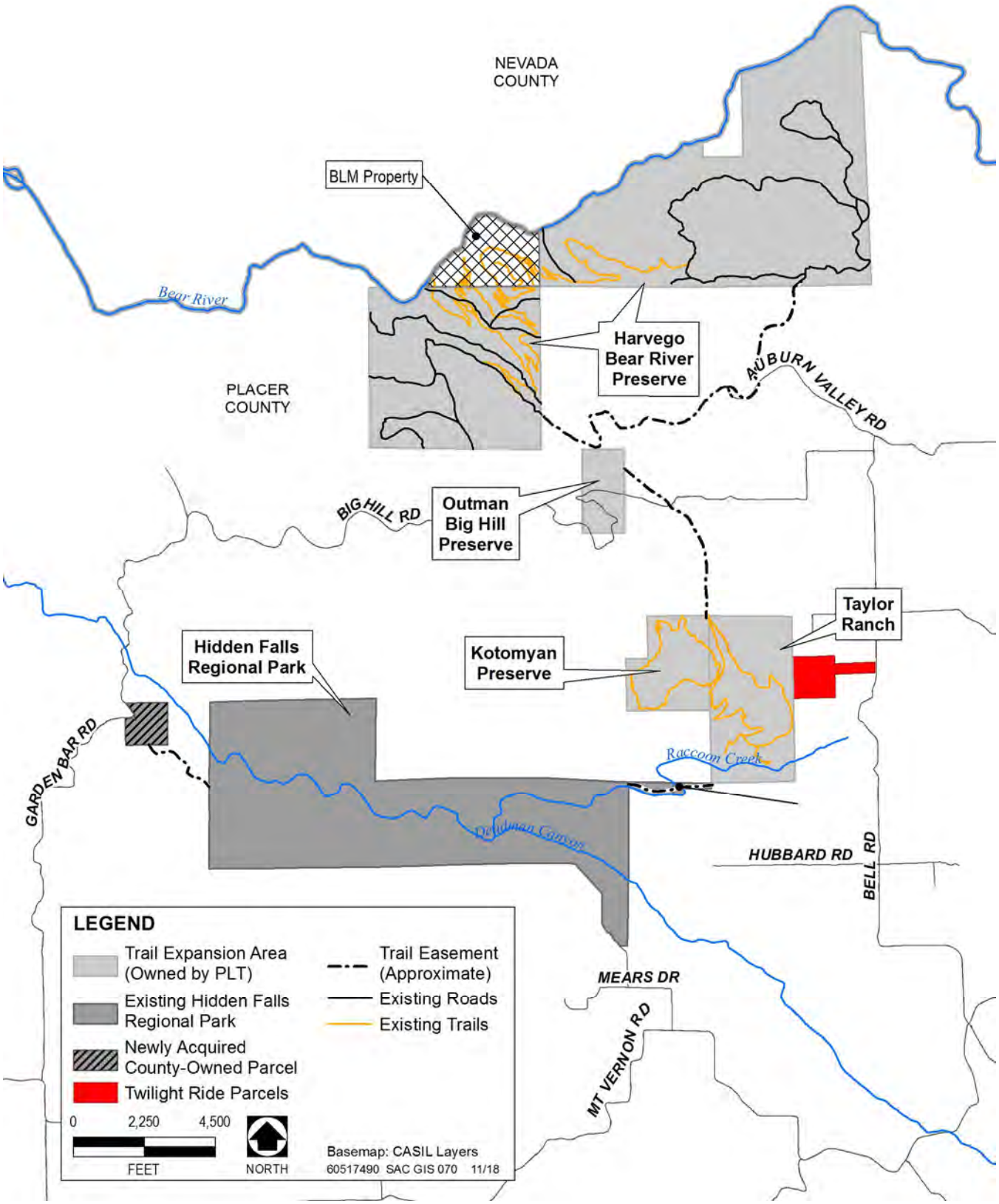
# APPENDIX A

Exhibits




Source: AECOM 2018.

**Exhibit 1. Project Location and Vicinity**



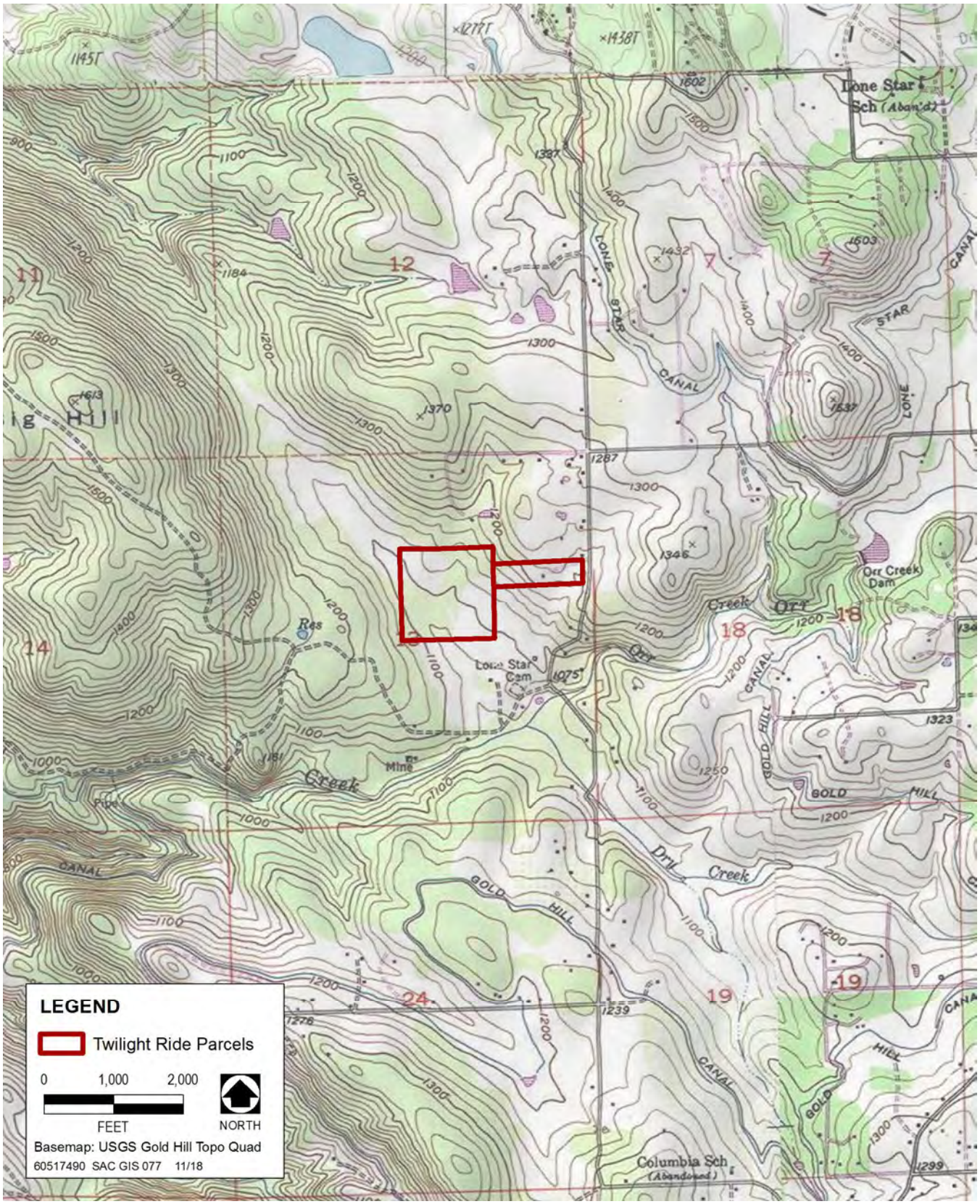

Source: AECOM 2018.

**Exhibit 2. Project Map**

AECOM

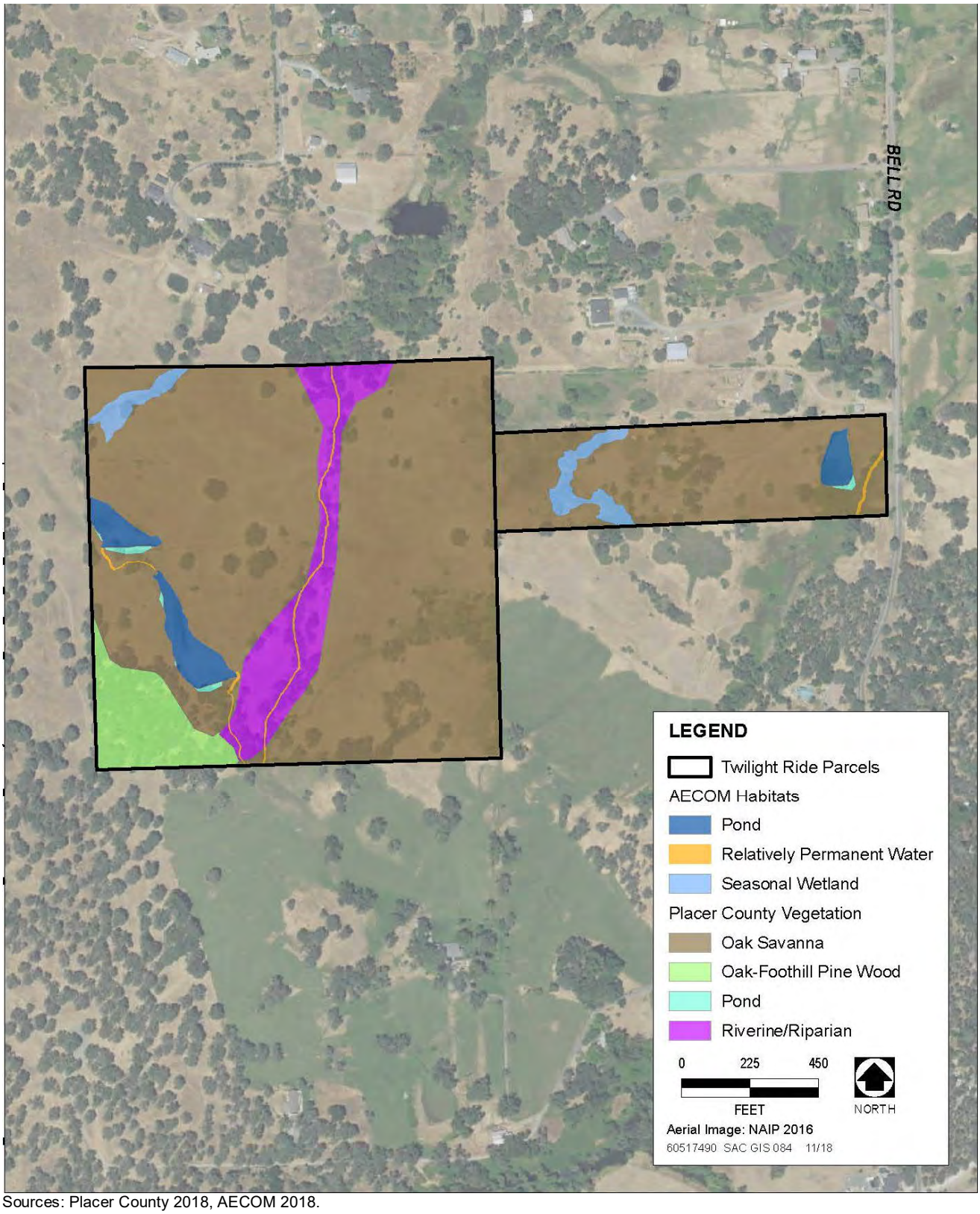
Source: AECOM 2018.

**Exhibit 3.** **Project Elements**



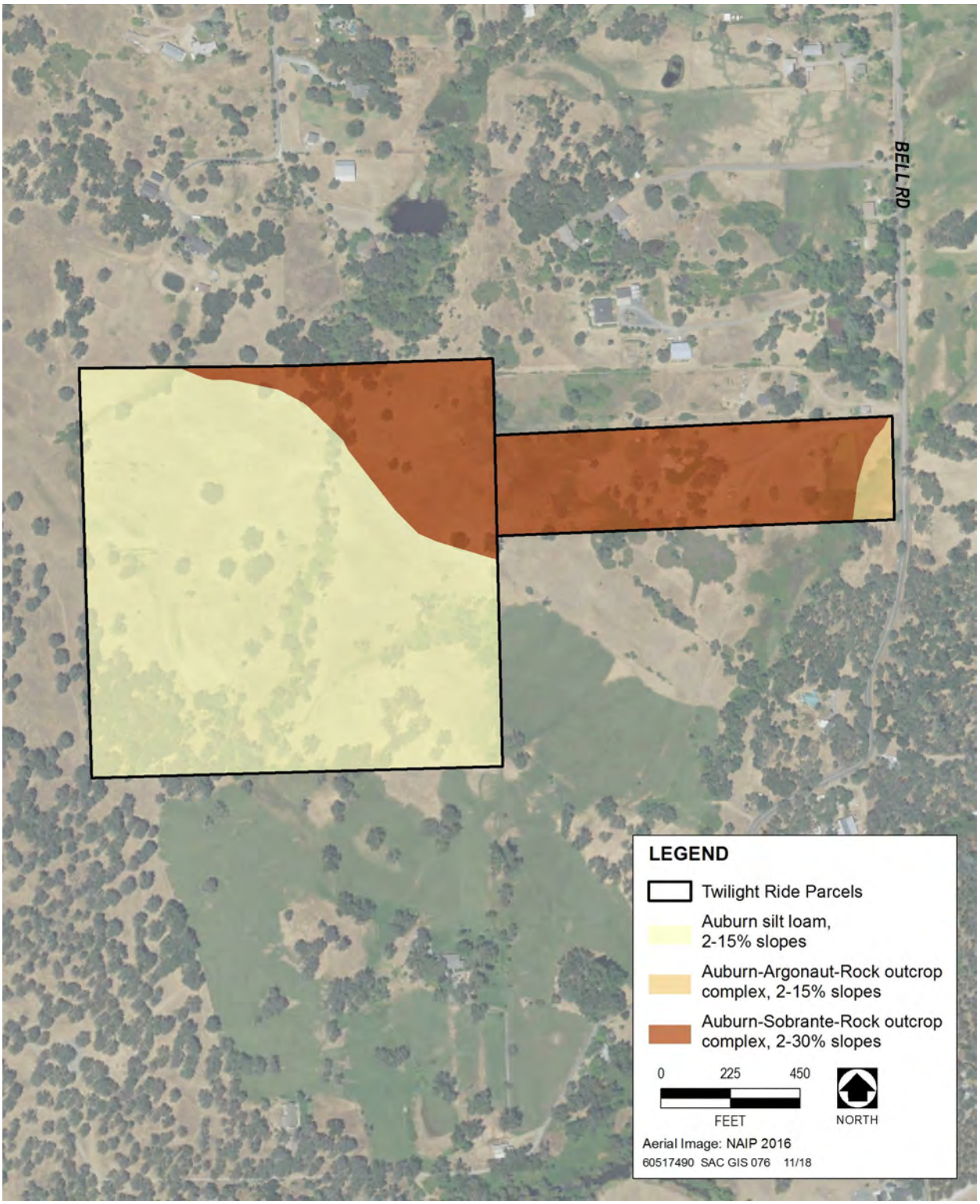

Source: AECOM 2018, USGS.

**Exhibit 4. Study Area Topographic Map**




Sources: Placer County 2018, AECOM 2018.

**Exhibit 5. Habitats Map**




Source: AECOM 2018.

**Exhibit 6. Soils Map**

AECOM

| Potentially Jurisdictional Features | | | | | |
|---|---|---|---|---|---|
| **Waters of the U.S.** | | | | | |
| Relatively Permanent Waters | | | | | 0.22 |
| | RPW1a | 0.01 | RPW1d | 0.01 | |
| | RPW1b | 0.01 | RPW2 | 0.13 | |
| | RPW1c | 0.01 | RPW3 | 0.05 | |
| Seasonal Wetland | | | | | 1.19 |
| | SW1 | 0.48 | SW2 | 0.71 | |
| Pond | | | | | 1.62 |
| | Pond1 | 0.46 | Pond3 | 0.35 | |
| | Pond2 | 0.81 | | | |
| **Total Potentially Jurisdictional Features:** | | | | | **3.03** |

Source: AECOM 2018.

**Exhibit 7. Aquatic Resources Delineation Map**

AECOM

# APPENDIX B

Plants Observed

| Scientific Name (= NWPL synonym) | Common Name | Indicator Status |
|---|---|---|
| *Amsinckia intermedia* | fiddleneck | NL |
| *Avena fatua (=A.sativa)* | wild oat | UPL |
| *Azolla microphylla* | Mexican mosquito fern | OBL |
| *Brassica sp.* | mustard | NL |
| *Briza minor* | little quaking grass | FAC |
| *Brodiaea elegans* | harvest brodiaea | FACU |
| *Bromus diandrus* | ripgut brome | NL |
| *Bromus hordeaceus* | soft chess | FACU |
| *Capsella bursa-pastoris* | shephard's purse | FACU |
| *Carex nebrascensis* | Nebraska sedge | OBL |
| *Carduus pycnocephalus* | Italian thistle | NL |
| *Castilleja attenuata* | Valley tassels | NL |
| *Cirsium vulgare* | Bull thistle | FACU |
| *Cyperus eragrostis* | umbrella-sedge | FACW |
| *Deschampsia danthonioides* | annual hair grass | FACW |
| *Eleocharis acicularis* | needle spikerush | OBL |
| *Elymus caput-medusae* | medusa head | NL |
| *Epilobium ciliatum* | willowherb | FACW |
| *Erodium botrys* | broadleaf filaree | FACU |
| *Eryngium castrense* | Great Valley coyote thistle | OBL |
| *Erythranthe guttata (=Mimulus guttatus)* | Yellow monkeyflower | OBL |
| *Eschscholzia californica* | California poppy | NL |
| *Festuca arundinacea (=Schedonorus arundinaceus)* | Reed fescue | FACU |
| *Festuca perennis (=Lolium perenne)* | rye grass | FAC |
| *Geranium dissectum* | cut-leaved geranium | NL |
| *Holcus lanatus* | Common velvetgrass | FAC |
| *Hordeum marinum var. gussoneanum* | Mediterranean barley | FAC |
| *Hordeum murinum var. leporinum* | hare barley | FACU |
| *Hypochaeris radicata* | rough cat's-ear | FACU |
| *Juncus balticus* | Baltic rush | FACW |
| *Juncus effusus* | common rush | FACW |
| *Juncus patens* | spreading rush | FACW |
| *Juncus xiphioides* | iris leaved rush | OBL |
| *Lactuca serriola* | prickly lettuce | FACU |
| *Linum bienne* | flax | NL |
| *Lotus corniculatus* | bird's foot trefoil | FAC |
| *Lupinus bicolor* | miniature lupine | NL |
| *Madia elegans ssp. vernalis* | common tarweed | NL |
| *Matricaria discoidea* | pineapple weed | FACU |

| Scientific Name (= NWPL synonym) | Common Name | Indicator Status |
|---|---|---|
| *Mentha canadensis (=arvensis)* | American cornmint | FACW |
| *Microseris acuminata* | microseris | NL |
| *Nasturtium officinale* | watercress | OBL |
| *Navarretia pubescens* | purple navarretia | NL |
| *Parentucellia viscosa* | parentucellia | FAC |
| *Perideridia kelloggii* | squawroot | NL |
| *Petrorhagia dubia* | grass pink | NL |
| *Plagiobothrys stipitatus var. micranthus* | stalked popcorn flower | FACW |
| *Plantago lanceolata* | English plantain | FAC |
| *Poa pratensis* | Kentucky blue grass | FAC |
| *Psilocarphus tenellus* | slender woolly-marbles | OBL |
| *Quercus douglasii* | blue oak | NL |
| *Quercus wislizeni* | interior live oak | NL |
| *Ranunculus californicus* | California buttercup | FACU |
| *Rubus armeniacus* | Himalayan blackberry | FAC |
| *Rumex crispus* | curly dock | FAC |
| *Rumex pulcher* | fiddledock | FAC |
| *Sagittaria lattifolia* | arrowhead | OBL |
| *Salix lasiolepis* | arroyo willow | FACW |
| *Scandix pectin-veneris* | Venus' needle | NL |
| *Trifolium dubium* | little hop clover | UPL |
| *Trifolium hirtum* | red clover | NL |
| *Trifolium subterraneum* | subterranean Clover | NL |
| *Triteleia laxa* | Ithuriel's spear | NL |
| *Triteleia hyacinthina* | white brodiaea | FAC |
| *Typha angustifolia* | narrow-leaf cattail | OBL |
| *Veronica americana* | American brooklime | FAC |
| *Vicia sativa* | spring vetch | FACU |

FAC = Facultative
FACU = Facultative Upland
FACW = Facultative Wetland
NL = not listed
NWPL = National Wetland Plant List
OBL = Obligate
UPL = Upland

Source: AECOM 2018

AECOM

# APPENDIX C

Sample Point Data Forms

AECOM

## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Hidden Falls / Twilight Ride Parcels City/County: Placer County Sampling Date: 5/15/18

Applicant/Owner: Placer County Land Trust State: CA Sampling Point: SP1

Investigator(s): K. Asmus and P. Unger Section, Township, Range: Section 13, Range 7E, Township 13N

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 15%

Subregion (LRR): C - Mediterranean California Lat: 38.980583 Long: -121.138982 Datum: WGS84

Soil Map Unit Name: Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ◉ No ◯ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ◯

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ◉ No ◯

Hydric Soil Present? Yes ◉ No ◯

Wetland Hydrology Present? Yes ◉ No ◯

**Is the Sampled Area within a Wetland?** Yes ◉ No ◯

Remarks: Point is within wetted area of a slope wetland, no clear seep/point source.

### VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| Total Cover: | % | | |
| **Sapling/Shrub Stratum** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| Total Cover: | % | | |
| **Herb Stratum** | | | |
| 1. *Juncus effusus* | 30 | Yes | FACW |
| 2. *Juncus patens* | 20 | Yes | FACW |
| 3. *Cyperus eragrostis* | 20 | Yes | FACW |
| 4. *Eleocharis acicularis* | 30 | Yes | OBL |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| Total Cover: | 100% | | |
| **Woody Vine Stratum** | | | |
| 1. | | | |
| 2. | | | |
| Total Cover: | % | | |

% Bare Ground in Herb Stratum 0 % % Cover of Biotic Crust %

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 30 | x 1 = | 30 |
| FACW species | 70 | x 2 = | 140 |
| FAC species | | x 3 = | 0 |
| FACU species | | x 4 = | 0 |
| UPL species | | x 5 = | 0 |
| Column Totals: | 100 (A) | | 170 (B) |

Prevalence Index = B/A = 1.70

**Hydrophytic Vegetation Indicators:**

- ☒ Dominance Test is >50%
- ☒ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes ◉ No ◯

Remarks:

AECOM

## SOIL

Sampling Point: SP1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox % | Type[1] | Loc[2] | Texture[3] | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-3 | 10YR 3/2 | 97 | 7.5YR 5/8 | 3 | C | M | loam | |
| 3-9+ | 10YR 3/2 | 75 | 7.5YR 5/8 | 25 | C | M | clay loam | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[4]:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**

Type:

Depth (inches):

**Hydric Soil Present?** Yes ◉ No ○

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☒ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☒ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ◉ | No ○ | Depth (inches): 1 |
| Water Table Present? | Yes ○ | No ○ | Depth (inches): |
| Saturation Present? (includes capillary fringe) | Yes ◉ | No ○ | Depth (inches): 0 |

**Wetland Hydrology Present?** Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample point is on slope, no clear point source/seep apparent but water trickling all across the slope and edges of area very saturated.

AECOM

## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Hidden Falls / Twilight Ride Parcels City/County: Placer County Sampling Date: 5/15/18

Applicant/Owner: Placer County Land Trust State: CA Sampling Point: SP2

Investigator(s): K. Asmus and P. Unger Section, Township, Range: Section 13, Range 7E, Township 13N

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 15%

Subregion (LRR): C - Mediterranean California Lat: 38.980496 Long: -121.139014 Datum: WGS84

Soil Map Unit Name: Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ◉ No ◯ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ◯

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ◯ | No ◉ | |
| Hydric Soil Present? | Yes ◯ | No ◉ | Is the Sampled Area within a Wetland? Yes ◯ No ◉ |
| Wetland Hydrology Present? | Yes ◯ | No ◉ | |

Remarks:

### VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| Total Cover: | % | | |
| **Sapling/Shrub Stratum** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| Total Cover: | % | | |
| **Herb Stratum** | | | |
| 1. *Avena fatua* | 10 | No | UPL |
| 2. *Trifolium dubium* | 25 | Yes | UPL |
| 3. *Bromus hordeaceus* | 15 | Yes | FACU |
| 4. *Broumus diandrus* | 10 | No | Not Listed |
| 5. *Hordeum murinum ssp. leporinum* | 10 | No | FACU |
| 6. *Festuca perennis* | 10 | No | FAC |
| 7. | | | |
| 8. | | | |
| Total Cover: | 80 % | | |
| **Woody Vine Stratum** | | | |
| 1. | | | |
| 2. | | | |
| Total Cover: | % | | |

% Bare Ground in Herb Stratum 20 % % Cover of Biotic Crust %

**Dominance Test worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 0 | (A) |
| Total Number of Dominant Species Across All Strata: | 2 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 0.0 % | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | | x 1 = | 0 |
| FACW species | | x 2 = | 0 |
| FAC species | 10 | x 3 = | 30 |
| FACU species | 25 | x 4 = | 100 |
| UPL species | 45 | x 5 = | 225 |
| Column Totals: | 80 (A) | | 355 (B) |

Prevalence Index = B/A = 4.44

**Hydrophytic Vegetation Indicators:**

- ◉ Dominance Test is >50%
- ◉ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes ◯ No ◉

Remarks: Sample point is upland pair to SP1.

AECOM

## SOIL

Sampling Point: SP2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox % | Type[1] | Loc[2] | Texture[3] | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-2 | 7.5YR 3/3 | 97 | 7.5YR 5/8 | 3 | C | M | loam | |
| 2-6+ | 7.5YR 3/3 | 90 | 7.5YR 5/8 | 10 | C | M | loam | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[4]:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**

Type:

Depth (inches):

**Hydric Soil Present?** Yes ○ No ●

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ○ | No ● | Depth (inches): |
| Water Table Present? | Yes ○ | No ● | Depth (inches): |
| Saturation Present? (includes capillary fringe) | Yes ○ | No ● | Depth (inches): |

**Wetland Hydrology Present?** Yes ○ No ●

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample point is upland pair to SP1, across slope along contour and out of moist soil area.

AECOM

## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Hidden Falls / Twilight Ride Parcels City/County: Placer County Sampling Date: 5/15/18

Applicant/Owner: Placer County Land Trust State: CA Sampling Point: SP3

Investigator(s): K. Asmus and P. Unger Section, Township, Range: Section 13, Range 7E, Township 13N

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 5-10%

Subregion (LRR): C - Mediterranean California Lat: Long: Datum: WGS84

Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ◉ No ◯ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ◯

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ◉ | No ◯ | |
| Hydric Soil Present? | Yes ◉ | No ◯ | Is the Sampled Area within a Wetland? Yes ◉ No ◯ |
| Wetland Hydrology Present? | Yes ◉ | No ◯ | |

Remarks:

### VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| Total Cover: | % | | |
| **Sapling/Shrub Stratum** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| Total Cover: | % | | |
| **Herb Stratum** | | | |
| 1. *Hordeum marinum ssp. gussoneanum* | 80 | Yes | FAC |
| 2. *Carex nebrascensis* | 15 | No | OBL |
| 3. *Rumex crispus* | 1 | No | FAC |
| 4. *Trifolium dubium* | 2 | No | Not Listed |
| 5. *Geranium dissectum* | 1 | No | Not Listed |
| 6. *Juncus balticus* | 1 | No | FACW |
| 7. *Festuca perennis* | 1 | No | FAC |
| 8. | | | |
| Total Cover: | 101% | | |
| **Woody Vine Stratum** | | | |
| 1. | | | |
| 2. | | | |
| Total Cover: | % | | |

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

**Dominance Test worksheet:**

| | | |
|---|---|---|
| Number of Dominant Species That Are OBL, FACW, or FAC: | 1 | (A) |
| Total Number of Dominant Species Across All Strata: | 1 | (B) |
| Percent of Dominant Species That Are OBL, FACW, or FAC: | 100.0% | (A/B) |

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 15 | x 1 = | 15 |
| FACW species | 1 | x 2 = | 2 |
| FAC species | 82 | x 3 = | 246 |
| FACU species | | x 4 = | 0 |
| UPL species | 3 | x 5 = | 15 |
| Column Totals: | 101 (A) | | 278 (B) |

Prevalence Index = B/A = 2.75

**Hydrophytic Vegetation Indicators:**

- ☒ Dominance Test is >50%
- ☒ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes ◉ No ◯

Remarks: Sample point is toward bottom of slope in a wide draw.

AECOM

## SOIL

Sampling Point: SP3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture[3] | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-9+ | 10YR 3/2 | 95 | 7.5YR 5/8 | 5 | C | M | silt loam | Redox features also in RC |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[4]:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**

Type:

Depth (inches):

**Hydric Soil Present?** Yes ◉ No ◯

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

| | | | | |
|---|---|---|---|---|
| Surface Water Present? | Yes ◉ | No ◯ | Depth (inches): | 1-2 |
| Water Table Present? | Yes ◉ | No ◯ | Depth (inches): | 6-7 |
| Saturation Present? (includes capillary fringe) | Yes ◉ | No ◯ | Depth (inches): | 0 |

**Wetland Hydrology Present?** Yes ◉ No ◯

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample point is located toward bottom of a draw/swale; no defined bed and bank in this section, but area drains to an unnamed tributary of Coon Creek. Surface water was flowing at time of site visit.

AECOM

## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Hidden Falls / Twilight Ride Parcels City/County: Placer County Sampling Date: 5/15/18

Applicant/Owner: Placer County Land Trust State: CA Sampling Point:

Investigator(s): K. Asmus and P. Unger Section, Township, Range: Section 13, Range 7E, Township 13N

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):

Subregion (LRR): C - Mediterranean California Lat: Long: Datum: WGS84

Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ◉ No ◯ (If no, explain in Remarks.)

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ◯

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ◯ | No ◉ | |
| Hydric Soil Present? | Yes ◯ | No ◉ | Is the Sampled Area within a Wetland? Yes ◯ No ◉ |
| Wetland Hydrology Present? | Yes ◯ | No ◉ | |

Remarks:

### VEGETATION

| Tree Stratum (Use scientific names.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| Total Cover: | % | | |
| **Sapling/Shrub Stratum** | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| Total Cover: | % | | |
| **Herb Stratum** | | | |
| 1. *Bromus hordeaceus* | 70 | Yes | FACU |
| 2. *Trifolium subterraneum* | 5 | No | Not Listed |
| 3. *Trifolium dubium* | 5 | No | UPL |
| 4. *Trifolium hirtum* | 5 | No | Not Listed |
| 5. *Festuca perennis* | 15 | No | FAC |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| Total Cover: | 100% | | |
| **Woody Vine Stratum** | | | |
| 1. | | | |
| 2. | | | |
| Total Cover: | % | | |

% Bare Ground in Herb Stratum % % Cover of Biotic Crust %

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | | x 1 = | 0 |
| FACW species | | x 2 = | 0 |
| FAC species | 15 | x 3 = | 45 |
| FACU species | 70 | x 4 = | 280 |
| UPL species | 15 | x 5 = | 75 |
| Column Totals: | 100 (A) | | 400 (B) |

Prevalence Index = B/A = 4.00

**Hydrophytic Vegetation Indicators:**

- ◉ Dominance Test is >50%
- ◉ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes ◯ No ◉

Remarks:

AECOM

## SOIL

Sampling Point: _____

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox % | Type[1] | Loc[2] | Texture[3] | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-6+ | 10YR 4/3 | 90 | 7.5YR 5/8 | 10 | C | M | silty loam | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[4]:**

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes ○ No ●

Remarks: Very rocky soil in this location.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ○ | No ● | Depth (inches): |
| Water Table Present? | Yes ○ | No ● | Depth (inches): |
| Saturation Present? (includes capillary fringe) | Yes ○ | No ● | Depth (inches): |

**Wetland Hydrology Present?** Yes ○ No ●

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample point is pair with SP3, slightly upslope.

AECOM

# APPENDIX D

Representative Photographs

**Photo 1:** View of typical pond (Pond 1), annual grassland and blue oak habitats at the Twilight Ride Property.

**Photo 2:** View of soil profile at Sample Point 1 on the Twilight Ride Property.

AECOM

# APPENDIX E

Aquatic Resources Upload Excel Table

AECOM

| Waters_Name | State | Cowardin_Code | HGM_Code | Meas_Type | Amount | Units | Waters_Type | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| RPW1 | CALIFORNIA | R4SB | RIVERINE | Linear | 552.73 | FOOT | RPW | -121.143018 | 38.978031 |
| RPW2 | CALIFORNIA | R4SB | RIVERINE | Linear | 1,392.62 | FOOT | RPW | -121.142115 | 38.979501 |
| RPW3 | CALIFORNIA | R4SB | RIVERINE | Linear | 256.81 | FOOT | RPW | -121.135618 | 38.980173 |
| Pond 1 | CALIFORNIA | PUB | RIVERINE | Area | 0.46 | ACRE | IMPNDMNT | -121.14432 | 38.979856 |
| Pond 2 | CALIFORNIA | PUB | RIVERINE | Area | 0.81 | ACRE | IMPNDMNT | -121.143509 | 38.978794 |
| Pond 3 | CALIFORNIA | PUB | RIVERINE | Area | 0.35 | ACRE | IMPNDMNT | -121.135995 | 38.980329 |
| SW1 | CALIFORNIA | PEM | SLOPE | Area | 0.48 | ACRE | RPWWN | -121.144105 | 38.980988 |
| SW2 | CALIFORNIA | PEM | SLOPE | Area | 0.71 | ACRE | DELINEATE | -121.138895 | 38.980208 |

# APPENDIX J

Septic Reports

Septic Report–Bell Road

**LINDBLOOM**

Septic Design, Inc.
122 East Street
Auburn, CA 95603

**Date:** April 23, 2019

**Assessor's Parcel Number:** 026-110-018

**Owner/Applicant:** Foothill Associates

**Property Location:** Bell Road, Auburn

**Proposed Use:** Restroom Facility for Park

**Size of Property:** 40± Acres

**Water Supply:** Public Well

**Recommendations:**

Soil mantle testing and percolation testing were conducted on this property to assess the sewage disposal feasibility. The effective soil depth observed in the approved areas is only suitable for a pretreatment septic system.

The septic system design should consist of a pretreatment system* and 11,666 square feet of Geoflow dripfield. The driplines are to be installed 6" deep on 24" centers.

*AdvanTex, Hoot, and sand filter are some of the pretreatment system options currently available.

The projections for the number of daily visitors was provided by Placer County.

Two locations were identified for sewage disposal. The area closer to the proposed parking area and restroom facility has been identified as the primary sewage disposal area. The area at the southeast of the property will be the 100% Repair Area.

Should the 100% Repair Area ever be needed, a 36" deep x 12" wide curtain drain is recommended upslope of the proposed dripfield to divert potential subsurface sheetflow.

Any alterations (such as grading, creating cuts or fills, utility installation, etc.) within or adjacent to the dripfield and 100% repair area may void this report.

This report is not a construction permit. A permit to install this system must be obtained from the Division of Environmental Health.

At the time of a building permit application, a complete design is to be prepared, including pretreatment system design, hydraulic calculations, material specifications, dripfield design, and construction directions.

# DRIPFIELD CALCULATIONS

| | | |
|---|---|---|
| Sewage flows: | | |
| Automobile parking: | 100 | spaces |
| Equestrian parking: | 40 | spaces |
| Total parking: | 140 | spaces |
| Projected maximum vehicles per day:<br>(140 parking spaces x 2) | 280 | |
| Maximum visitors per day:<br>(280 vehicles x 2.5 assumed visitors per vehicle) | 700 | |
| Design sewage flows:<br>700 visitors x 5 gal/visitor<br>(Table 2, Placer County On-Site Sewage Manual) | 3500 | gallons/day |

<u>Primary Sewage Disposal Area:</u>

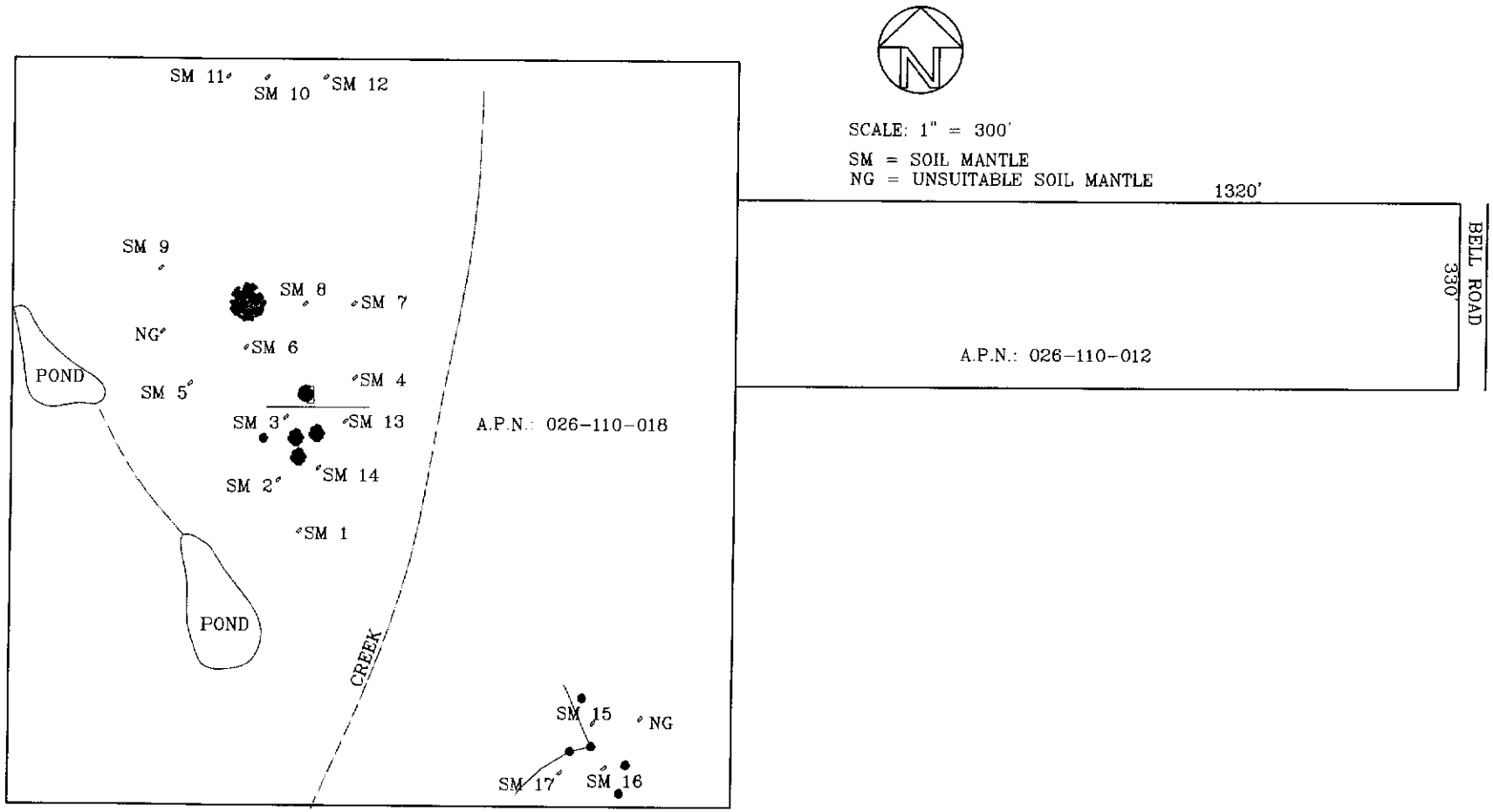
| | | |
|---|---|---|
| Average percolation rate (p-1,2,3): | 28 | mpi at the 17" – 20" depth |
| Soil type: | Clay | |
| Application rate:<br>(pg. 9, Geoflow Design Manual) | 0.3 | gal/sq ft/day |
| Minimum absorption area required:<br>(3500 gal/day ÷ 0.3 gal/sq ft/day) | 11,666 sq ft | |
| Sewage disposal area available: | 18,000 sq ft | |

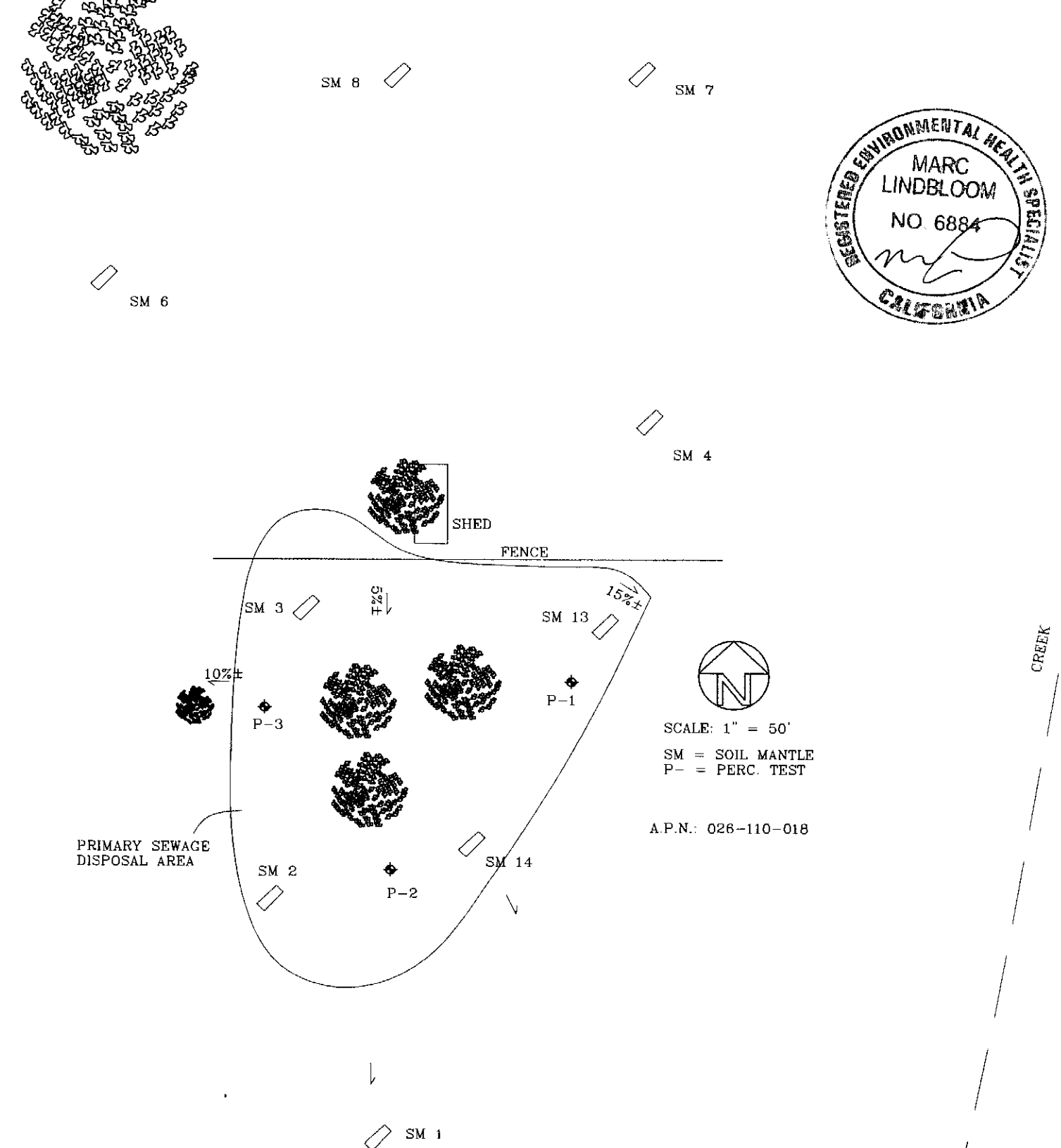
<u>100% Repair Area:</u>

| | | |
|---|---|---|
| Average percolation rate (p-4,5,6): | 45 | mpi at the 12" – 18" depth |
| Soil type: | Clay | |
| Application rate:<br>(pg. 9, Geoflow Design Manual) | 0.3 | gal/sq ft/day |

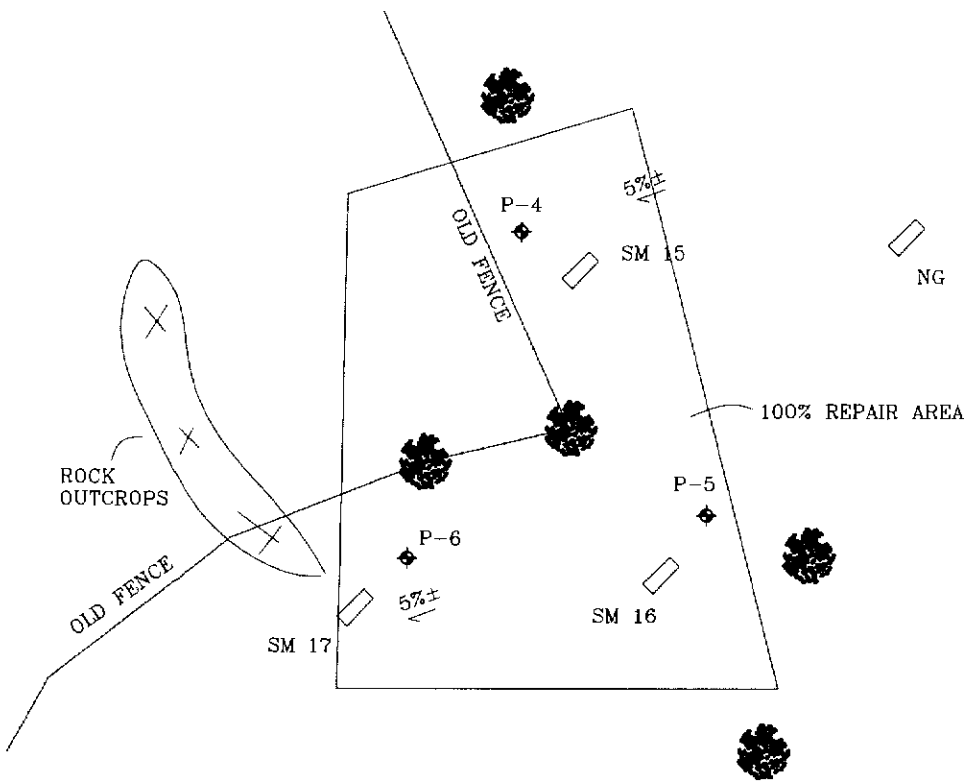
| | |
|---|---|
| Minimum absorption area required:<br>(3500 gal/day ÷ 0.3 gal/sq ft/day) | 11,666 sq ft |
| Sewage disposal area available: | 13,500 sq ft |

Marc Lindbloom, R.E.H.S. #6884
(530) 888-7464


SCALE: 1" = 300'
SM = SOIL MANTLE
NG = UNSUITABLE SOIL MANTLE
1320'
330'
BELL ROAD
A.P.N.: 026-110-012
A.P.N.: 026-110-018
SM 11
SM 10
SM 12
SM 9
SM 8
SM 7
NG
SM 6
POND
SM 5
SM 4
SM 3
SM 13
SM 2
SM 14
SM 1
POND
CREEK
SM 15
NG
SM 17
SM 16


SM 8
SM 7
SM 6
SM 4
SHED
FENCE
SM 3
5%±
15%±
SM 13
10%±
P-3
P-1
PRIMARY SEWAGE
DISPOSAL AREA
SM 2
P-2
SM 14
SM 1
CREEK
N
SCALE: 1" = 50'
SM = SOIL MANTLE
P- = PERC. TEST
A.P.N.: 026-110-018
REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC
LINDBLOOM
NO. 6884
CALIFORNIA

REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC
LINDBLOOM
NO. 6884
CALIFORNIA




SCALE: 1" = 50'

SM = SOIL MANTLE
P- = PERC. TEST
NG = UNSUITABLE SOIL MANTLE
(DENSE CLAY AT 12")

A.P.N.: 026-110-018

# *PERCOLATION REPORT*

TESTING CONDUCTED: April 22, 2019 APN: 026-110-018

| HOLE #: 1 | |
|---|---|
| DEPTH OF HOLE: 18" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 0.95 |
| 60 | 0.9 |
| 90 | 0.9 |
| RATE: 33 MPI | |
| CORRECTED RATE: 35 MPI | |

| HOLE #: 2 | |
|---|---|
| DEPTH OF HOLE: 17" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 0.8 |
| 60 | 0.85 |
| 90 | 0.8 |
| RATE: 38 MPI | |
| CORRECTED RATE: 39 MPI | |

| HOLE #: 3 | |
|---|---|
| DEPTH OF HOLE: 20" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 3.2 |
| 60 | 3.2 |
| 90 | 3.1 |
| RATE: 10 MPI | |
| CORRECTED RATE: 10 MPI | |

| HOLE #: 4 | |
|---|---|
| DEPTH OF HOLE: 12" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 0.8 |
| 60 | 0.75 |
| 90 | 0.75 |
| RATE: 40 MPI | |
| CORRECTED RATE: 42 MPI | |

| HOLE #: 5 | |
|---|---|
| DEPTH OF HOLE: 18" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 1.0 |
| 60 | 0.9 |
| 90 | 0.9 |
| RATE: 33 MPI | |
| CORRECTED RATE: 35 MPI | |

| HOLE #: 6 | |
|---|---|
| DEPTH OF HOLE: 16" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 0.6 |
| 60 | 0.6 |
| 90 | 0.55 |
| RATE: 55 MPI | |
| CORRECTED RATE: 57 MPI | |

*Changed to 10 minute readings

Following the presoak period, the percolation rate was established by taking 30 minute or 10 minute readings until two consecutive readings varied by 10% or less. Test holes refilled after each reading.

A 1.04 correction factor applied to the field percolation rate (required for 7" diameter hole with a ½"gravel pack).

REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC LINDBLOOM
NO 6884
CALIFORNIA

# SOIL MANTLE LOG

APN: 026/110/018 Date: 4/18/15 Consultant: M. Lindbloom Page 1 of ____

**Profile #: 1 Slope: ____**
Depth: 0-15"
Texture: s sl sc scl l c (cl) sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: 5YR 4/3
Mottles: ____ faint distinct prominent
Structure: gr abk (sbk) mass other
Consistence: L VFr (Fr) F VF EF S
Plasticity: NP (SP) P VP
Stickiness: NS (SS) S VS
Roots: none few (common) many (vf) f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr (D) M S Se
Similar to Horizon ____ Profile: ____

**Profile #: 2 Slope: ____**
Depth: 0-15"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

**Depth: 15-30"**
Texture: s sl sc scl l c cl sic sicl (sil) si
gravelly cobbly stoney DRX IWRX (MWRX) DG
Color: 7.5YR 5/2
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

**Depth: 15-32"**
Texture: s sl sc scl l (c) cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: 2.5YR 4/6
Mottles: ____ faint distinct prominent
Structure: gr abk (sbk) mass other
Consistence: L VFr (Fr) F VF EF S
Plasticity: NP SP (P) VP
Stickiness: NS SS (S) VS
Roots: none (few) common many (vf f) m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr (D) M S Se
Similar to Horizon ____ Profile: ____

**Depth: ____**
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

**Depth: 32-50"**
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
Color: 7.5YR
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

**Depth: ____**
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 15"
Ground Water Depth: ____
Minimum System Feasible: None

**Depth: ____**
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 32"
Ground Water Depth: ____
Minimum System Feasible: Pretreatment

# SOIL MANTLE LOG

APN: 026/110/018 Date: 11/18/19 Consultant: M. Lindblom Page 2 of ____

Profile #: 4 Slope: ____
Depth: 0-14"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Profile #: 5 Slope: ____
Depth: 0-10"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 14-
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: 10-20"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s (w) I b
Distinctness: a (c) g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: 20-29"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 14"
Ground Water Depth: ____
Minimum System Feasible: None

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 20"
Ground Water Depth: ____
Minimum System Feasible: None

# SOIL MANTLE LOG

APN: 026/110/018 Date: 4/18/19 Consultant: M. LINDBLOOM Page 3 of ___

Profile #: 7 Slope: ___
Depth: 0-18"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Profile #: 8 Slope: ___
Depth: 0-10"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 18-31"
Texture: s sl sc scl l (c) cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
Color: ___
Mottles: 5YR 5/2 faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D (M) S Se
Similar to Horizon ___ Profile: ___

Depth: 10-19"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: ___
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___

Depth: 19-30" DENSE
Texture: s sl sc scl l (c) cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk (mass) other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D (M) S Se
Similar to Horizon ___ Profile: ___

Depth: ___
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___
Total Depth: ___ Effective Depth: 18"
Ground Water Depth: ___
Minimum System Feasible: None

Depth: ___
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I h
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___
Total Depth: ___ Effective Depth: 17"
Ground Water Depth: ___
Minimum System Feasible: None

# SOIL MANTLE LOG

APN: 026/110/018 Date: 4/18/19 Consultant: N. LINDEBOOM Page 4 of ____

Profile #: 10 Slope: ____
Depth: 0-11"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Profile #: 11 Slope: ____
Depth: 0-15
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 11-21"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: 15-20"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: 21-31"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: 20-35"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 21"
Ground Water Depth: ____
Minimum System Feasible: None

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 20"
Ground Water Depth: ____
Minimum System Feasible: None

# SOIL MANTLE LOG

APN: 026/110/018 Date: 4/18/19 Consultant: M. Lindsay Page 5 of ___

Profile #: 13 Slope: ___
Depth: 0-12"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 12-30"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: 30-40"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___

Depth: ___
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___
Total Depth: ___ Effective Depth: 30"
Ground Water Depth: ___
Minimum System Feasible: PRETREAT

Profile #: 14 Slope: ___
Depth: 0-12"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 12-30"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: 30-47"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___

Depth: ___
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ___
Mottles: ___ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ___ Profile: ___
Total Depth: ___ Effective Depth: 30"
Ground Water Depth: ___
Minimum System Feasible: PRETREAT

# SOIL MANTLE LOG

APN: 026/110/018 Date: 4/18/13 Consultant: [illegible] Page 6 of ____

Profile #: 16 Slope: ____
Depth: 0-16"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 16-38"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: 38-56"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 38"
Ground Water Depth: ____
Minimum System Feasible: PRETREAT

Profile #: 17 Slope: ____
Depth: 0-18"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 18-30"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 2

Depth: 30-60"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____

Depth: ____
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: ____
Mottles: ____ faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon ____ Profile: ____
Total Depth: ____ Effective Depth: 30"
Ground Water Depth: ____
Minimum System Feasible: PRETREAT

Septic Report–Curtola Ranch Road

**LINDBLOOM**

Septic Design, Inc.
122 East Street
Auburn, CA 95603

**Date:** April 19, 2019

**Assessor's Parcel Number:** 026-020-013

**Owner/Applicant:** Foothill Associates

**Property Location:** Curtola Ranch Road, Auburn

**Proposed Use:** Restroom Facility for Park

**Size of Property:** 80± Acres

**Water Supply:** Public Well

**Recommendations:**

Soil mantle testing and percolation testing were conducted on this property to assess the sewage disposal feasibility. The effective soil depth observed in the approved area is only suitable for a pretreatment system.

The septic system design should consist of a pretreatment system* and 10,833 square feet of Geoflow dripfield. The driplines are to be installed 6" deep on 24" centers.

*AdvanTex, Hoot, and sand filter are some of the pretreatment system options currently available.

The projections for the number of daily visitors was provided by Placer County.

A 42" deep x 12" wide curtain drain is recommended upslope of the proposed dripfield to divert potential subsurface sheetflow.

Any alterations (such as grading, creating cuts or fills, utility installation, etc.) within or adjacent to the dripfield and 100% repair area may void this report.

This report is not a construction permit. A permit to install this system must be obtained from the Division of Environmental Health.

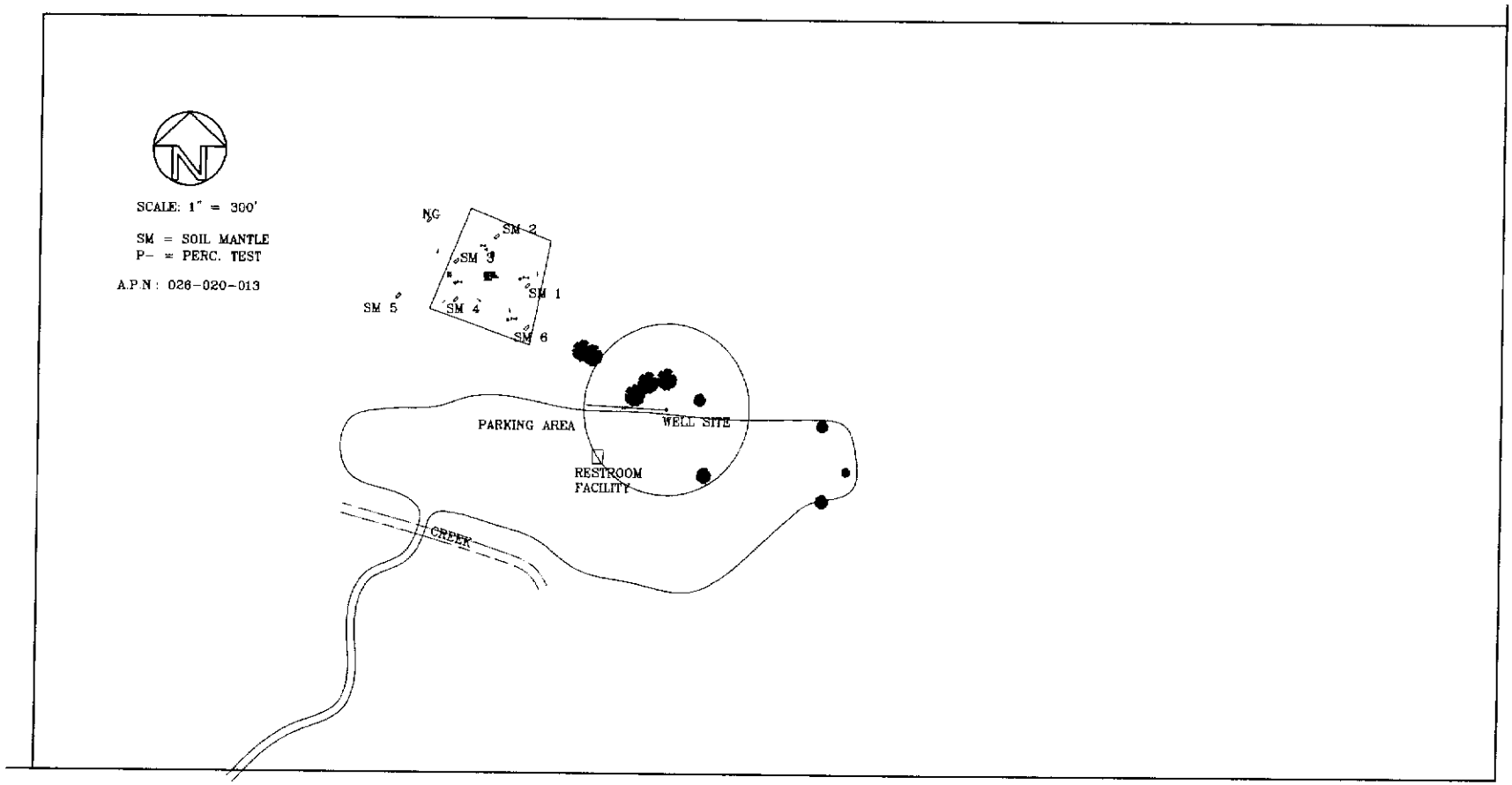
At the time of a building permit application, a complete design is to be prepared, including pretreatment system design, hydraulic calculations, material specifications, dripfield design, and construction directions.

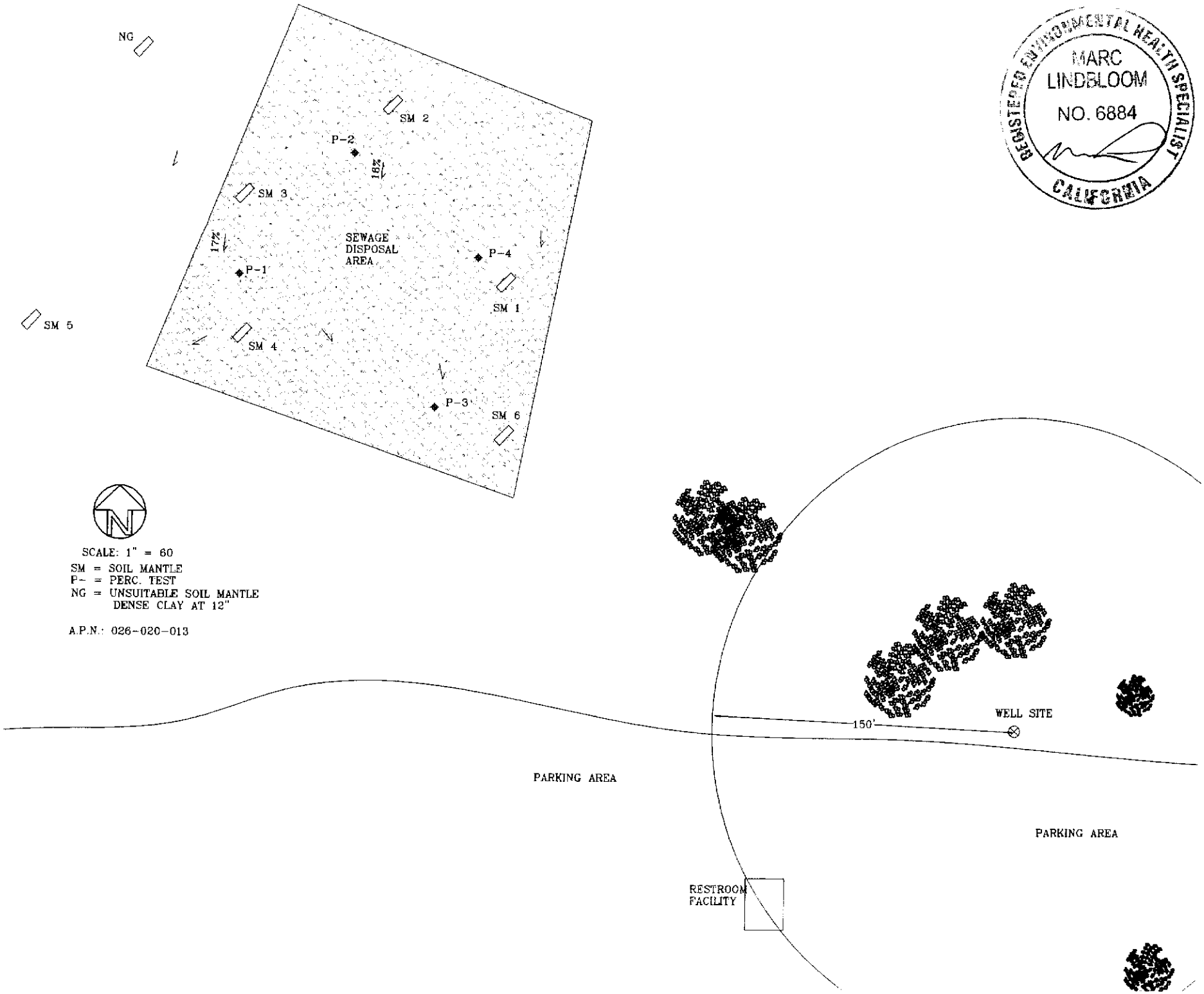
Marc Lindbloom, R.E.H.S. #6884
(530) 888-7464

# DRIPFIELD CALCULATIONS

Calculations:

| | | |
|---|---|---|
| Sewage flows: | | |
| Automobile parking: | 120 | spaces |
| Equestrian parking: | 10 | spaces |
| Total parking: | 130 | spaces |
| Projected maximum vehicles per day:<br>(130 parking spaces x 2) | 260 | |
| Maximum visitors per day:<br>(260 vehicles x 2.5 assumed visitors per vehicle) | 650 | |
| Design sewage flows:<br>(650 visitors x 5 gal/visitor) | 3250 | gallons/day |
| Average percolation rate: | 15 | mpi at the 12" – 24" depth |
| Soil type: | Sandy Clay | |
| Application rate:<br>(pg. 9, Geoflow Design Manual) | 0.3 | gal/sq ft/day |
| Minimum absorption area required:<br>(3250 gal/day ÷ 0.3 gal/sq ft/day) | 10,833 sq ft | |
| Absorption area required including 100% Repair Area:<br>(10,833 sq ft x 2) | 21,666 sq ft | |
| Sewage disposal area available: | 32,000 sq ft | |


SCALE: 1" = 300'
SM = SOIL MANTLE
P- = PERC. TEST
A.P.N: 026-020-013
NG
SM 2
SM 3
SM 1
SM 5
SM 4
SM 6
PARKING AREA
WELL SITE
RESTROOM
FACILITY
CREEK


NG
SM 2
P-2
18%
SM 3
17%
SEWAGE
DISPOSAL
AREA
P-4
P-1
SM 1
SM 5
SM 4
P-3
SM 6
SCALE: 1" = 60
SM = SOIL MANTLE
P- = PERC. TEST
NG = UNSUITABLE SOIL MANTLE
DENSE CLAY AT 12"
A.P.N.: 026-020-013
150'
WELL SITE
PARKING AREA
PARKING AREA
RESTROOM
FACILITY
REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC
LINDBLOOM
NO. 6884
CALIFORNIA

# *PERCOLATION REPORT*

TESTING CONDUCTED: April 19, 2019

APN: 026 020-013

| HOLE #: 1 | |
|---|---|
| DEPTH OF HOLE: 18" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 4.1 |
| 60 | 4.4 |
| 90 | 4.2 |
| RATE: 7 MPI | |
| CORRECTED RATE: 7 MPI | |

| HOLE #: 2 | |
|---|---|
| DEPTH OF HOLE: 12" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 2.55 |
| 60 | 2.6 |
| 90 | 2.5 |
| RATE: 12 MPI | |
| CORRECTED RATE: 12 MPI | |

| HOLE #: 3 | |
|---|---|
| DEPTH OF HOLE: 22" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 3.3 |
| 60 | 3.3 |
| 90 | 3.3 |
| RATE: 9 MPI | |
| CORRECTED RATE: 9 MPI | |

| HOLE #: 4 | |
|---|---|
| DEPTH OF HOLE: 24" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 1.0 |
| 60 | 1.05 |
| 90 | 1.0 |
| RATE: 30 MPI | |
| CORRECTED RATE: 31 MPI | |

| HOLE #: | |
|---|---|
| DEPTH OF HOLE: | |
| TIME IN MINUTES | DROP IN INCHES |
| RATE: | |
| CORRECTED RATE: | |

| HOLE #: | |
|---|---|
| DEPTH OF HOLE: | |
| TIME IN MINUTES | DROP IN INCHES |
| RATE: | |
| CORRECTED RATE: | |

*Changed to 10 minute readings

Following the presoak period, the percolation rate was established by taking 30 minute or 10 minute readings until two consecutive readings varied by 10% or less. Test holes refilled after each reading.

A 1.04 correction factor applied to the field percolation rate (required for 7" diameter hole with a ½"gravel pack).

REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC LINDBLOOM
NO 6884
CALIFORNIA

# SOIL MANTLE LOG

APN: 026/020/013 Date: 4/18/19 Consultant: M. LINDBLOOM Page 1 of 2

**Profile #: 1** Slope:
Depth: 0 - 18"
Texture: s sl sc scl l c (cl) sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: 2.5YR3/3
Mottles: faint distinct prominent
Structure: gr abk (sbk) mass other
Consistence: L VFr (Fr) F VF EF S
Plasticity: NP (SP) P VP
Stickiness: NS (SS) S VS
Roots: none few (common) many (vf f) m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: (Dr) D M S Se
Similar to Horizon Profile:

**Profile #: 2** Slope:
Depth: 0 - 14"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 18 - 30"
Texture: s sl (sc) scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color: 2.5YR4/6
Mottles: faint distinct prominent
Structure: gr abk (sbk) mass other
Consistence: L VFr (Fr) F VF EF S
Plasticity: NP SP (P) VP
Stickiness: NS SS (S) VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr (D) M S Se
Similar to Horizon Profile:

Depth: 14 - 50"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 1

Depth: 30 - 70"
Texture: s sl sc scl l (c) cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
Color: 2.5YR4/4
Mottles: 2.5YR4/6 faint distinct prominent
Structure: gr abk sbk (mass) other
Consistence: L VFr Fr (F) VF EF S
Plasticity: NP SP (P) VP
Stickiness: NS SS (S) VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr (D) (M) S Se
Similar to Horizon Profile:

Depth: 50 - 75"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 3 Profile: 1

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:
Total Depth: Effective Depth: 30"
Ground Water Depth:
Minimum System Feasible: PRETREAT

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:
Total Depth: Effective Depth: 50'
Ground Water Depth:
Minimum System Feasible: PRETREAT

# SOIL MANTLE LOG

APN: 026/029 013 Date: 4/18/19 Consultant: M. Lindblom Page 2 of 2

Profile #: 4 Slope:
Depth: 0-24"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 24-49"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 1

Depth: 49-64"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 3 Profile: 1

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:
Total Depth: Effective Depth: 49"
Ground Water Depth:
Minimum System Feasible: Pretreat

Profile #: 5 Slope:
Depth: 0-20"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 20-27" 85%
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:
Total Depth: Effective Depth: 20"
Ground Water Depth:
Minimum System Feasible: None

Septic Report–Garden Bar Road

**LINDBLOOM**

Septic Design, Inc.
122 East Street
Auburn, CA 95603

**Date:** April 10, 2019

**Assessor's Parcel Number:** 026-072-084

**Owner/Applicant:** Foothill Associates

**Property Location:** Garden Bar Road, Lincoln

**Proposed Use:** Restroom Facility for Park

**Size of Property:** 38± Acres

**Water Supply:** Public Well

**Recommendations:**

Soil mantle testing and percolation testing were conducted on this property to assess the sewage disposal feasibility. The effective soil depth observed in the test holes is suitable for a pretreatment system. Based on the proposed use, I would recommend an Eljen geotextile sand filter.

For the future restroom facility, the septic system should consist of a septic tank, pump tank (their sizes to be determined as part of the septic design), effluent pump, control panel, and approximately 972 lineal feet of 36" wide x 16" deep leachtrench. Eljen A42 modules to be installed above 6" of specified sand in the leachtrenches. Trenches to be installed level, on contours, on minimum 9' centers.

Utillizing pressure distribution should increase the longevity of the Eljen trenches and provide the best treatment.

Calculations:

Sewage flows:

| | | |
|---|---|---|
| Automobile parking: | 50 | spaces |
| Equestrian parking: | 20 | spaces |
| Total parking: | 70 | spaces |
| Projected maximum vehicles per day:<br>(70 parking spaces x 2) | 140 | |

| | | |
|---|---|---|
| Maximum visitors per day:<br>(140 vehicles x 2.5 assumed visitors per vehicle) | 350 | |
| Design sewage flows:<br>(350 visitors x 5 gal/visitor) | 1750 | gallons/day |
| Average percolation rate: | 28 | mpi at the 20" – 28" depth |
| Application rate based on percolation rate:<br>($5 \div \sqrt{28}$) | 0.94 | gal/sq ft/day |
| Soil texture: | Silty clay loam | |
| Application rate based on soil texture*:<br>(sect. 1.16, Placer County Design & Installation Manual) | 0.6 | gal/sq ft/day |
| Absorption area required:<br>(1750 gallons/day ÷ 0.6 gal/sq ft/day) | 2917 | square feet |
| Lineal feet of leachtrench required:<br>(2917 sq ft ÷ 3 sq ft/lin ft) | 972 | lin ft |

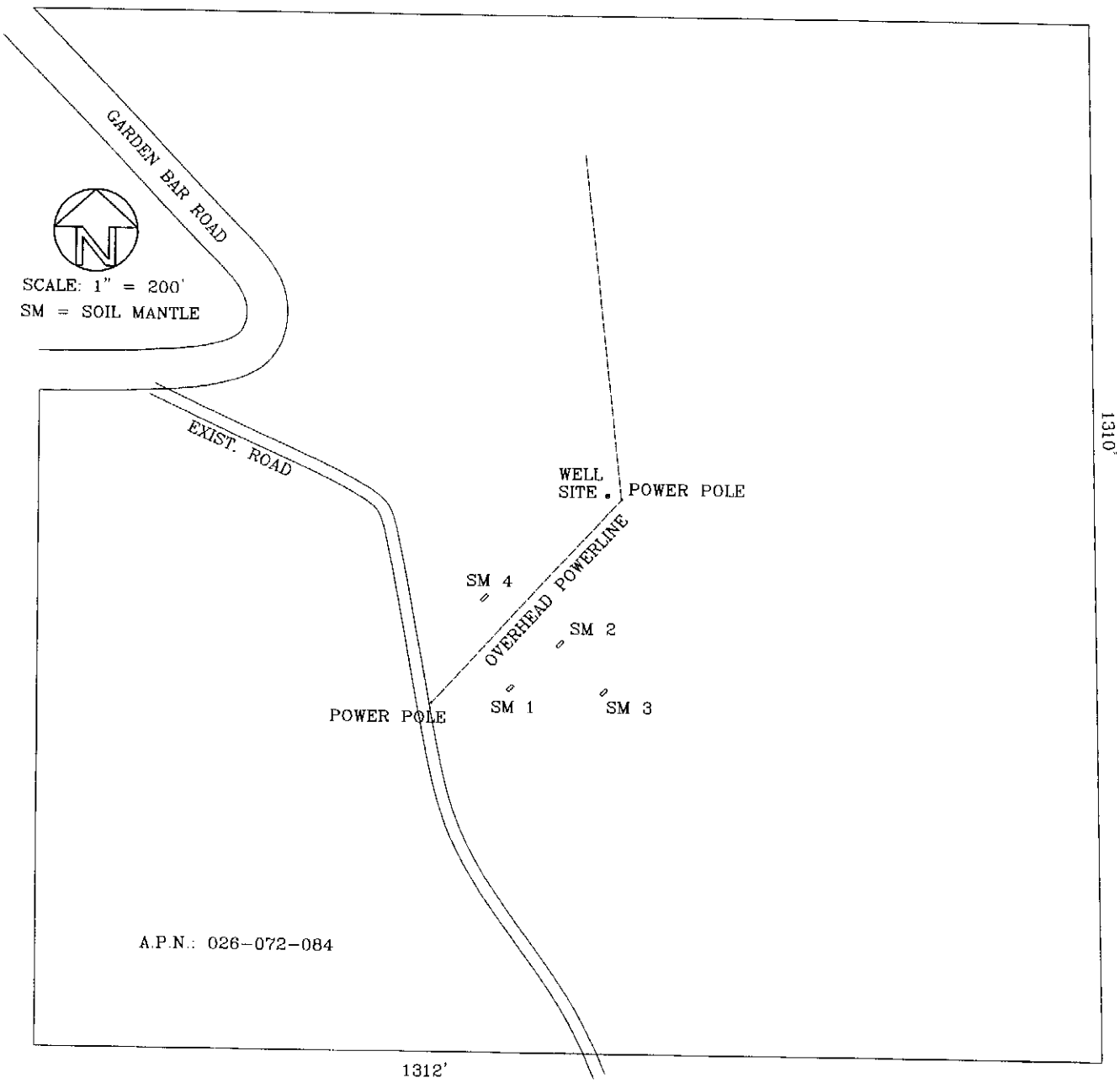
*Per Placer County policy, the slower application rate has been used in these calculations.

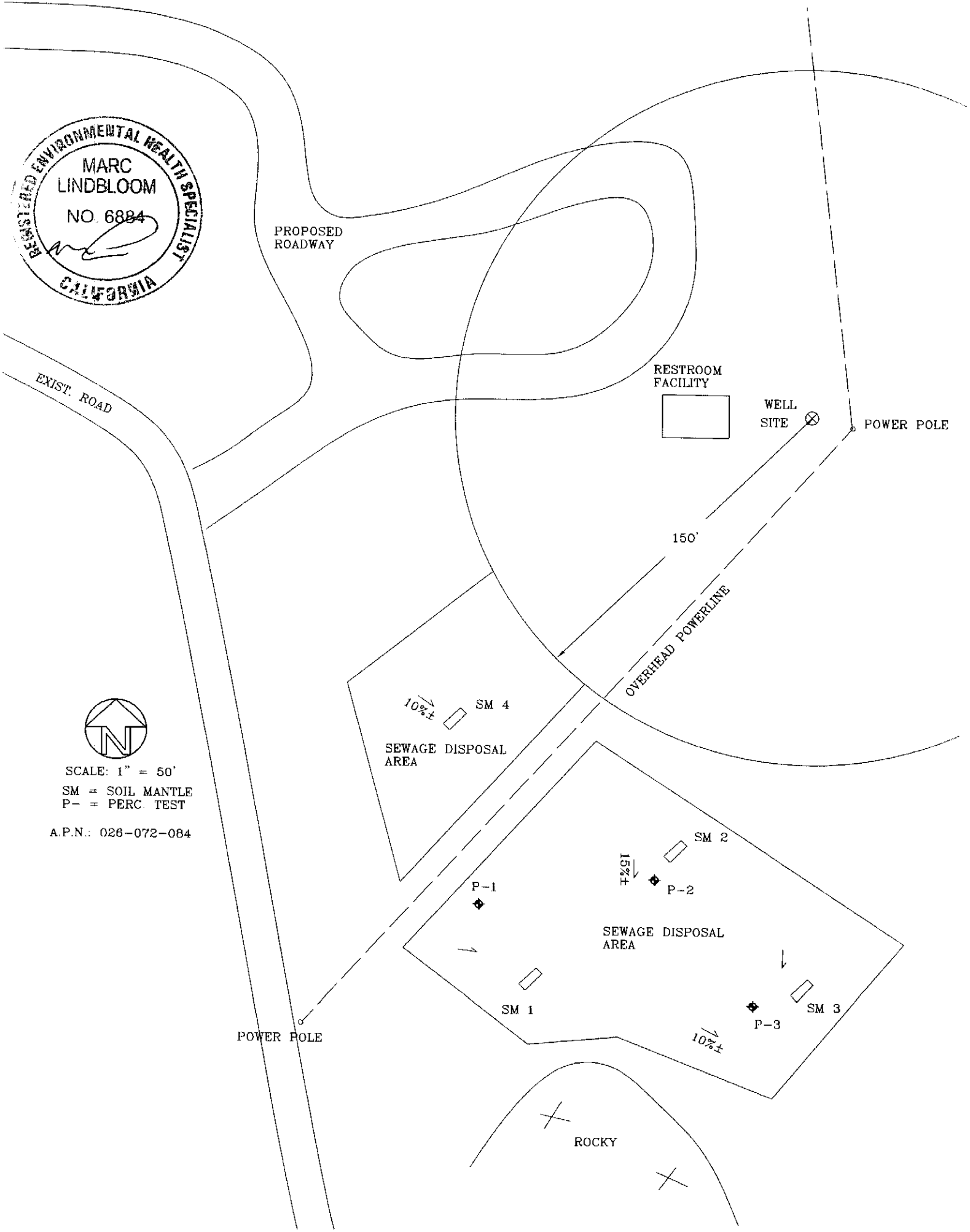
Any alterations (such as grading, creating cuts or fills, utility installation, etc.) within or adjacent to the leachfield and 100% repair area may void this report.

This report is not a construction permit. A permit to install this system must be obtained from the Division of Environmental Health.

At the time of a building permit application, a complete design including pretreatment unit design, leachfield design, hydraulic calculations, leachfield installation instructions, and material specifications will be required.

Marc Lindbloom, R.E.H.S. #6884
(530) 888-7464


GARDEN BAR ROAD
N
SCALE: 1" = 200'
SM = SOIL MANTLE
EXIST. ROAD
WELL SITE
POWER POLE
OVERHEAD POWERLINE
SM 4
SM 2
SM 1
SM 3
POWER POLE
A.P.N.: 026-072-084
1310'
1312'


REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC
LINDBLOOM
NO. 6884
CALIFORNIA
PROPOSED
ROADWAY
EXIST. ROAD
RESTROOM
FACILITY
WELL
SITE
POWER POLE
150'
OVERHEAD POWERLINE
10%±
SM 4
SEWAGE DISPOSAL
AREA
SCALE: 1" = 50'
SM = SOIL MANTLE
P- = PERC. TEST
A.P.N.: 026-072-084
SM 2
15%±
P-1
P-2
SEWAGE DISPOSAL
AREA
SM 1
SM 3
P-3
10%±
POWER POLE
ROCKY

# *PERCOLATION REPORT*

TESTING CONDUCTED: April 9, 2019 APN: 026-072-08

| HOLE #: 1 | |
|---|---|
| DEPTH OF HOLE: 20" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 1.1 |
| 60 | 1.0 |
| 90 | 1.0 |
| RATE: 30 mpi | |
| CORRECTED RATE: 31 mpi | |

| HOLE #: 2 | |
|---|---|
| DEPTH OF HOLE: 24" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 1.65 |
| 60 | 1.65 |
| 90 | 1.6 |
| RATE: 19 mpi | |
| CORRECTED RATE: 20 mpi | |

| HOLE #: 3 | |
|---|---|
| DEPTH OF HOLE: 28" | |
| TIME IN MINUTES | DROP IN INCHES |
| 30 | 1.0 |
| 60 | 0.95 |
| 90 | 0.95 |
| RATE: 32 mpi | |
| CORRECTED RATE: 33 mpi | |

| HOLE #: | |
|---|---|
| DEPTH OF HOLE: | |
| TIME IN MINUTES | DROP IN INCHES |
| RATE: | |
| CORRECTED RATE: | |

| HOLE #: | |
|---|---|
| DEPTH OF HOLE: | |
| TIME IN MINUTES | DROP IN INCHES |
| RATE: | |
| CORRECTED RATE: | |

| HOLE #: | |
|---|---|
| DEPTH OF HOLE: | |
| TIME IN MINUTES | DROP IN INCHES |
| RATE: | |
| CORRECTED RATE: | |

*Changed to 10 minute readings

Following the presoak period, the percolation rate was established by taking 30 minute or 10 minute readings until two consecutive readings varied by 10% or less. Test holes refilled after each reading.

A 1.04 correction factor applied to the field percolation rate (required for 7" diameter hole with a ½"gravel pack).

REGISTERED ENVIRONMENTAL HEALTH SPECIALIST
MARC LINDBLOOM
NO 6884
CALIFORNIA

# SOIL MANTLE LOG

APN: 026/072/084 Date: 4/8/19 Consultant: M. LINDBLOM Page 1 of 2

**Profile #:** 1 **Slope:**
**Depth:** 0 - 13"
**Texture:** s sl sc scl l c cl sic (sicl) sil si
gravelly cobbly stoney DRX IWRX MWRX DG
**Color:** 2.5YR 3/4
**Mottles:** faint distinct prominent
**Structure:** gr abk sbk mass other
**Consistence:** L VFr (Fr) F VF EF S
**Plasticity:** NP (SP) P VP
**Stickiness:** NS SS (S) VS
**Roots:** none few common (many) (vf) f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr (D) M S Se
**Similar to Horizon** **Profile:**

**Profile #:** 2 **Slope:**
**Depth:** 0 - 10"
**Texture:** s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
**Color:**
**Mottles:** faint distinct prominent
**Structure:** gr abk sbk mass other
**Consistence:** L VFr Fr F VF EF S
**Plasticity:** NP SP P VP
**Stickiness:** NS SS S VS
**Roots:** none few common many vf f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr D M S Se
**Similar to Horizon** 1 **Profile:** 1

**Depth:** 13 - 40"
**Texture:** s sl sc scl l c (cl) sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
**Color:** 2.5YR 5/6
**Mottles:** faint distinct prominent
**Structure:** gr abk (sbk) mass other
**Consistence:** L VFr (Fr) F VF EF S
**Plasticity:** NP SP (P) VP
**Stickiness:** NS (SS) S VS
**Roots:** none few (common) many vf f m c
**Boundary:** Topography: s (w) I b
Distinctness: a (c) g d
**Moisture:** Dr (D) M S Se
**Similar to Horizon** **Profile:**

**Depth:** 10 - 28"
**Texture:** s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
**Color:**
**Mottles:** faint distinct prominent
**Structure:** gr abk sbk mass other
**Consistence:** L VFr Fr F VF EF S
**Plasticity:** NP SP P VP
**Stickiness:** NS SS S VS
**Roots:** none few common many vf f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr D M S Se
**Similar to Horizon** 2 **Profile:** 1

**Depth:** 40 - 44" DENSE CLAY
**Texture:** s sl sc scl l (c) cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
**Color:** 2.5YR 5/4
**Mottles:** 2.5YR 6/2 faint distinct prominent
**Structure:** gr abk sbk (mass) other
**Consistence:** L VFr Fr (F) VF EF S
**Plasticity:** NP SP P (VP)
**Stickiness:** NS SS S (VS)
**Roots:** none few common many vf f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr (D) M S Se
**Similar to Horizon** **Profile:**

**Depth:** 28 - 48"
**Texture:** s sl sc scl l c (cl) sic sicl sil si
gravelly cobbly stoney (DRX) (IWRX) MWRX DG
**Color:** 2.5YR 5/4 5/6 6/6
**Mottles:** faint distinct prominent
**Structure:** gr abk (sbk) mass other
**Consistence:** L VFr (Fr F) VF EF S
**Plasticity:** NP SP (P) VP
**Stickiness:** NS (SS) S VS
**Roots:** none few common many vf f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr (D) M S Se
**Similar to Horizon** **Profile:**

**Depth:** 44 - 5'
**Texture:** s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
>50%
**Color:**
**Mottles:** faint distinct prominent
**Structure:** gr abk sbk mass other
**Consistence:** L VFr Fr F VF EF S
**Plasticity:** NP SP P VP
**Stickiness:** NS SS S VS
**Roots:** none few common many vf f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr D M S Se
**Similar to Horizon** **Profile:**
**Total Depth:** **Effective Depth:** 40"
**Ground Water Depth:**
**Minimum System Feasible:** PRETREATMENT

**Depth:** 48 - 72"
**Texture:** s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX (MWRX) DG
>50%
**Color:**
**Mottles:** faint distinct prominent
**Structure:** gr abk sbk mass other
**Consistence:** L VFr Fr F VF EF S
**Plasticity:** NP SP P VP
**Stickiness:** NS SS S VS
**Roots:** none few common many vf f m c
**Boundary:** Topography: s w I b
Distinctness: a c g d
**Moisture:** Dr D M S Se
**Similar to Horizon** **Profile:**
**Total Depth:** **Effective Depth:** 48"
**Ground Water Depth:**
**Minimum System Feasible:** PRETREATMENT

# SOIL MANTLE LOG

APN: 026/072/084 Date: 4/8/19 Consultant: M. LINDBLOM Page 2 of 2

Profile #: 4 Slope:
Depth: 0-16"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 1 Profile: 1

Depth: 16-36"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon 2 Profile: 1

Depth: 36 174"
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:
Total Depth: Effective Depth: 36"
Ground Water Depth:
Minimum System Feasible: PLATFORM

Profile #: Slope:
Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:

Depth:
Texture: s sl sc scl l c cl sic sicl sil si
gravelly cobbly stoney DRX IWRX MWRX DG
Color:
Mottles: faint distinct prominent
Structure: gr abk sbk mass other
Consistence: L VFr Fr F VF EF S
Plasticity: NP SP P VP
Stickiness: NS SS S VS
Roots: none few common many vf f m c
Boundary: Topography: s w I b
Distinctness: a c g d
Moisture: Dr D M S Se
Similar to Horizon Profile:
Total Depth: Effective Depth:
Ground Water Depth:
Minimum System Feasible:

# APPENDIX K

Environmental Site Assessments

Phase I Environmental Site Assessment–Bruin Ranch

# PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

# BRUIN RANCH

WKA No. 7225.01

July 28, 2006

WALLACE · KUHL & ASSOCIATES INC.

WALLACE - KUHL
& ASSOCIATES INC.

# PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

**BRUIN RANCH**
Vicinity of Auburn Valley Road and Bell Road
Placer County, California

July 28, 2006

*Prepared For:*
Tammy Rodrigues
Newland Communities
1508 Eureka Road, Suite 250
Roseville, California 95661

*Prepared By:*
Wallace-Kuhl & Associates, Inc.
500 Menlo Drive, Suite 100
Rocklin, California 95765
WKA No. 7225.01

CORPORATE OFFICE

ROCKLIN OFFICE

STOCKTON OFFICE

**PHASE 1 ENVIRONMENTAL SITE ASSESSMENT**
**BRUIN RANCH**
Vicinity of Auburn Valley Road and Bell Road
Placer County, California
WKA No. 7225.01
July 28, 2006

Wallace-Kuhl & Associates, Inc. on behalf of Newland Communities prepared this Phase 1 Environmental Site Assessment for Bruin Ranch located in the vicinity of Auburn Valley Road and Bell Road, Sutter County, California. The report was prepared in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This report was prepared under the technical direction of a California Registered Environmental Assessor.

**WALLACE-KUHL & ASSOCIATES, INC.**

Prepared By:

REGISTERED ENVIRONMENTAL ASSESSOR I
JANINE M. BRINKMAN
REA I-07881
Expires 6-2007
STATE OF CALIFORNIA

Janine M. Brinkman
Staff Geologist

Reviewed By:

PROFESSIONAL GEOLOGIST
JOHN C. PFEIFFER
No. 2372
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

John C. Pfeiffer
Project Geologist

JMB:JCP:kjw

R:/dept7/active/7225.01 ESA

WALLACE - KUHL & ASSOCIATES INC.

**PHASE 1 ENVIRONMENTAL SITE ASSESSMENT**
**BRUIN RANCH**

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1 Agency Database Search

**PHASE 1 ENVIRONMENTAL SITE ASSESSMENT**
**BRUIN RANCH**

# 1. INTRODUCTION

## 1.1 Purpose

The purpose of this Phase 1 Environmental Site Assessment (ESA) was to evaluate the site for evidence of potential Recognized Environmental Conditions (REC's) resulting from current and/or former site activities. According to the American Society of Testing and Materials (ASTM) Standard E 1527-00 the term recognized environmental conditions is defined as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property" (ASTM 2000).

## 1.2 Scope of Services

This ESA has been completed for the Bruin Ranch, shown on various maps included as Figures 1 through 3. WKA received authorization from Newland Communities to proceed with this assessment on June 15, 2006. This report has been prepared in conformance with the ASTM Standard E 1527-00 and the scope and limitations defined in our authorized proposal, 7PR06158, dated June 7, 2006. The Phase 1 scope of this assessment included the following:

- Site Reconnaissance
- Interviews
- Records Review
- Report Preparation

WKA has also prepared a *Preliminary Naturally Occurring Asbestos Evaluation* (WKA No. 7225.02) and a *Preliminary Geotechnical Engineering Report* (WKA No. 7225.03) for Bruin Ranch as separate reports.

## 1.3 Special Terms and Conditions

No special terms or conditions were requested or performed during the preparation of this Phase 1 ESA.

# 2. SITE DESCRIPTION

## 2.1 Site and Vicinity General Characteristics

The site consists of approximately 2581 acres of developed and undeveloped land located approximately eight miles northerly from the City of Auburn. The site is located at 9895 Auburn Valley Road, immediately north, south and west of the Auburn Valley Country Club (Figures 1 and 2). The site is comprised of Placer County Assessor's Parcel Numbers 026-020-009, -011 through -013; 026-061-001, -003 through -007, -009, -051 and -068; 026-370-018, -019, -039 and -040 (Figure 3).

The site is located within a predominantly rural residential and agricultural area of north Placer County. The land areas both on and off the site range from gently sloping to steeply sloping. Rock outcrops are prevalent in the area.

## 2.2 Site Reconnaissance

The site was visually and/or physically inspected on July 11 and 25, 2006, by walking and driving the site to observe current site conditions. A representative of WKA performed the site reconnaissance. Figure 4 contains color photographs of the site.

Development on the site consists of irrigated pastures, a corral, two livestock holding areas, numerous ponds and reservoirs, two water supply wells, dirt and gravel-surfaced roads, old rock walls and a former maintenance/storage building area, and a portion of Auburn Valley Road. Portions of perimeter and interior areas are secured with barbed wire fences and metal gates. Additionally, rock walls were observed on several areas on the central and west sides of the site. Auburn Valley Road bisects the southeast side of the site. The asphalt pavement was in fair condition at the time of the field reconnaissance. The unimproved dirt roads are located on the north, central and west sides of the site. The gravel-surfaced roads are located on the east-central portion of the site. Four-wheel drive trails were also observed on the north-central and northwest sides of the site. No stained soils, odors or stressed vegetation from use of herbicide sprays or road surface oiling were observed on or around the roadways on the dates of our field reconnaissance. No stained soils, odors or stressed vegetation were observed on or adjacent to the Auburn Valley Road.

The vast majority of the site's surface is covered with a moderate to dense growth of green and dried grasses and forbs. Berry vines and water plants including cattails were also observed. Numerous evergreen and deciduous trees were scattered across the site. The surface of the site displays a very gently rolling to steeply sloping topography. Rock outcrops are prevalent. No odors, discolored surface soils or stressed vegetation were observed anywhere on the site at the time of the field reconnaissance. No field evidence was observed to suggest that the site had been weed abated through the use of chemicals or herbicides. The vast majority of the site is essentially featureless and does not warrant verbose discussion.

Grazing livestock were observed on the site at the time of our field reconnaissance. Three livestock dusting bags that contain over-the-counter pesticides (not restricted use) for fly control were observed on the east-central portion of the site. The corral and two livestock holding areas are located on the east-central side of the site, north of the Auburn Valley Country Club. The livestock holding areas are simply fenced and gated. Stored piping, spools of cable and wood pallets were observed in the general vicinity of the westernmost livestock holding area. The corral area consists of a livestock holding area, an aluminum frame and tarp livestock shelter, and an aluminum frame and tarp cattle workspace. The workspace contains cabinets, a cattle chute. A one-gallon container of antibiotics for livestock was observed on the top of the cabinets. A pile of cow manure was observed east of the corral area. Additionally, a five-foot diameter pile of what appeared to be ash was observed east of the cattle workspace. The pile is several inches high and a barbeque was observed in close proximity. The soils in the livestock holding areas and corrals have been densely compacted by the livestock and vehicles, and little to no vegetation exists in these areas. No unusual stains, odors or stressed vegetation were observed around the livestock holding areas and corral.

The site has several reservoirs and ponds on the east side. Six of the ponds are former sewage disposal ponds. Not all of the ponds contained water and some of the ponds were only partially filled. The two reservoirs are larger than the ponds. Both reservoirs have dams and water release areas. No unusual stains, odors or stressed vegetation were observed on the banks of the reservoirs or ponds, or on the bottoms of the empty ponds during the field reconnaissance. No noxious odors or iridescent sheen were observed on the viewed water surfaces at the time of our field reconnaissance.

Several ditches and deep trenches were observed on the site. The observed ditch sections had built-up sidewalls on the down-slope sides. The trenches ranged from one foot to greater than five feet deep. The ditches appear to route surface water from the up-slope portions of the site away from the access roads as well as routing water to different areas of the site. The trenches appear to route surface water or water discharged from reservoirs or ponds to ponds or stream channels. Clear running water discharged from ponds or reservoirs was observed in some of the drainage ditches and trenches. Other observed drainage ditches and trenches were dry. No unusual stains, odors or stressed vegetation were observed in the ditches or trenches during the field reconnaissance. No noxious odors or iridescent sheen were observed on the viewed water surfaces at the time of our field reconnaissance.

The former building and debris area is located on the east-central portion of the site, west of the Country Club's driving range. The shape and slope on the northerly side of this location suggests its use was previously an old rock or soil borrow area. Two concrete slabs were observed on the northeast side of the former building and debris area. Several vertical steel pipes were observed protruding from the concrete slabs or between and just south of the slabs. One pipe in the concrete held a remnant piece of PVC piping, which suggests the pipes in the concrete supported an overhead horizontal pipe. The two vertical steel pipes located between the slabs were cut close to the ground surface and appeared to be a remnant fence section. No evidence of a third vertical pipe was observed, which might have suggested the pipes were a fill port, a dispenser line and a vent pipe of a UST. Metal, plastic and wood debris and concrete rubble were observed near the concrete slabs. The soils beneath the debris were not visible during the field reconnaissance. No unusual stains, odors or stressed vegetation were observed on or around the concrete slabs and debris during the field reconnaissance.

A large volume of concrete rubble, rock, metal debris, PVC and metal pipes, wood, corrugated fiberglass roof panels, rebar, corrugated sheet metal, remnants of furniture, golf balls and golf equipment, asphalt rubble and soil were observed on the northwest and south sides of the debris area. Additionally, wood power poles and rail ties, an approximate 10,000-gallon empty and rusted UST, empty and rusted 55-gallon drums, vehicle axles, several wheels and tire casings, a truck tailgate and a flatbed trailer were observed on level ground beside the debris and soil piles. Lumber, metal and concrete debris was also observed scattered in a trench located south of the former building area. The soils beneath the debris and soil piles were not visible during the field

reconnaissance. One stained soil area was observed west side of the debris piles. The stain is approximately ten feet diameter and consists of a black hardened substance. WKA staff was unable to break through the hardened substance to observe the underlying soil. No other unusual stains, odors or stressed vegetation were observed in or around the debris piles and abandoned items.

Metal debris, metal boxes (possibly for livestock feed), irrigation and clay pipe debris were also observed on the east-central and southeast sides of the site. No unusual stains, odors or stressed vegetation were observed around debris during the field reconnaissance.

One active groundwater supply well was observed on the site. The well is on the southeast side of the site. Based on WKA's interview with the owner, one additional well is located on the east-central side of the site. No unusual stains or odors were noted around the observed water supply well during the field reconnaissance.

The site contains no agricultural or earthwork contractor equipment steam cleaning or maintenance areas, farm or earthwork equipment staging areas, agricultural or equipment maintenance-related chemical mixing or storage locations, or waste or raw materials storage areas; the site contains no farm operation hubs, residential sites, obvious evidence of lead based paint, or dry cleaning facilities. Similarly, WKA observed no monitoring wells, obvious surface manifestations of septic systems, evidence of ASTs or USTs, vent pipes, fill ports, product piping or dispenser islands, cesspools, sumps, pits, lagoons, catch basins, oil/water separators, leaking pipes, hydraulic hoists or lifts, mechanic's pits, floor drains or drain inlets, discolored or turbid surface waters or noxious odors from surface waters.

The site neither historically nor presently contains any mining, milling or smelting operations, mine openings, mine tailings, mine waste, railroad activity or yards, waste or raw materials storage areas or impounds. Similarly, WKA observed no concentrated holding pens, feedlots, carcass pits, manure piles, dairy operations, dairy production waste ponds or cattle pesticide dip pits. WKA observed no stained or discolored soils, obvious evidence of imported fill, areas of illegal dumping, evidence of illegal drug manufacturing sites or unexplainable ground disturbances, burn piles, burn dumps, burn pits, naturally occurring asbestos or areas of stressed vegetation. WKA also did not observe naturally occurring asbestos (NOA), but the issue is addressed specifically in WKA's Preliminary NOA Evaluation.

### 2.2.1 Municipal Infrastructure and Utilities

No developed provisions for potable water, sanitary sewer or stormwater currently exist on the site. WKA anticipates that when the site is entitled and developed, the site will be tied to municipal water, sanitary sewer and stormwater systems. The site presently has a water supply well used to irrigate the pastures. Evidence of buried irrigation pipes within the pastures was observed during the field reconnaissance.

Pacific Gas & Electric Company (PG&E) buried electric lines service the on-site wells and pumps located near the reservoirs. WKA observed no other evidence of buried utilities located on or adjacent to the site. Pole-mounted neighborhood distribution electric lines bisect the site along Auburn Valley Road. No overhead high-voltage electrical transmission lines, capacitors or electrical transformers were observed on the site.

## 2.3 Adjoining Properties

The site is located within a predominantly rural, agricultural and undeveloped area of north Placer County. The Bear River and undeveloped lands bound the site to the north. Undeveloped land bounds the site to the northeast, west and the majority of the lands to the south. The Auburn Valley Country Club and residential community bound the site to the southeast.

No industrial or heavy commercial facilities, or stationary sources of substantial hazardous air emissions are located on or in the area of the site within one-quarter mile. No businesses that use, produce and/or bulk store hazardous materials or generate reportable quantities of hazardous waste were observed adjacent to or in the neighborhood of the site.

# 3. INTERVIEWS

Interviews with owners, occupants, tenants and/or local or State agencies were conducted by WKA during the preparation of this report in order to obtain information that may indicate RECs in connection with the site.

## 3.1 Key Site Manager

WKA interviewed Mr. Lloyd Harvego, current owner of the site, on July 21, 2006. Mr. Harvego has owned the site since 1999, and as such, is considered a Key Site Manager. According to Mr. Harvego, the site was rangeland and irrigated pasture prior to the purchase. Mr. Harvego's knowledge of the site is limited. According to Mr. Harvego, the golf course storage and maintenance building existed on the site, but he did not know for how long. The site may have had ASTs, but he did not know for sure. Mr. Harvego indicated he has no knowledge of USTs existing on the site. Mr. Harvego stated that the debris on the site is from the former owner. Mr. Harvego is not aware of any homesteads existing on the site, although he is aware of the rock walls that exist on the central portion of the site.

Mr. Harvego indicated that the ponds collect stormwater runoff. A water line helps maintain the water level in the reservoirs. The stored water is used to irrigate pastures. The south reservoir has a pump that draws water to irrigate the golf course.

Mr. Harvego indicated that two water supply wells exist on the site. One well was obtained from a municipal water district when it became contaminated by cattle waste from an area upgradient from the site. An easement for a potable well and water pipeline was given to the Home Owners Association (HOA) of the adjacent residential development. The second well on the site was drilled a few years ago for the HOA.

Mr. Harvego indicated that no restricted pesticides are used on the property. The cattle dusting bags are purchased at a feed store and require no permits. Mr. Harvego has no knowledge of any buried dumps existing on the site.

## 3.2 Occupants (Multi-family or Major)

The site is currently not occupied by tenants.

## 3.3 Past and Present Owners, Operators, and/or Occupants

WKA interviewed Mr. Lloyd Harvego, current owner of the site. See Section 3.1 for that interview.

## 3.4 State and/or Local Government Officials

WKA interviewed the following state and local government officials regarding the site:

*Mr. Ken Sibley, Placer County Building Department (PCBD)*
Mr. Sibley, Supervising Inspector for the PCBD, was interviewed in person on July 25, 2006. According to Mr. Sibley, the PCBD does not have any maps or information on file regarding the locations of mines or mining claims for Placer County.

*Ms. Pat Patton, Placer County Department of Agriculture (PCDA)*
Ms. Patton was contacted on June 27, 2006, regarding *Pesticide Use Reports* (often associated with registered chemical applications to agriculture). Since no restricted use pesticides are used on the site the PCDA does not have records on file for the site.

# 4. RECORDS REVIEW

The purpose of the records review is to obtain and review federal, tribal, state and local records that would help to identify the presence of RECs in connection with the site and nearby properties, within minimum search distances. The records review included examination and discussion of the following, as available:

- Physical Setting Source(s)
- Historical Use Information
- Environmental Record Sources

## 4.1 Physical Setting Source(s)

The site is depicted on the 1998 USGS 7.5 Minute topographic map of the *Wolf Quadrangle* as undeveloped land located south of the Bear River and west of a residential development. The site is located within Sections 1, 2, and 3, Township 13 North, Range 7 East, and Sections 25, 34, 35, and 36, Township 14 North, Range 7 East, Mount Diablo Base and Meridian (MDBM). The site is located at elevations ranging between +460 and +1,694 feet relative to mean sea level (msl).

### 4.1.1 Regional Geology

The site lies within the western block of the Sierra Nevada metamorphic belt, which is comprised of Paleozoic and Mesozoic (older than 65 million years) marine sedimentary and volcanic rocks derived from a volcanic island arc system. The rocks have experienced deformation and metamorphism due to convergent plate tectonic activity during the early Paleozoic to Late Jurassic. These rocks are considered part of the Foothill Melange-Ophiolite Terrain (Kohler, S.L., 1984).

### 4.1.2 Radon

This discussion of the potential for radon exposure at the site and vicinity is based on review of available scientific literature on the topic. Radon isotope-222 is a colorless, odorless, tasteless radioactive gas that is a natural decay product of uranium. Uranium and radon are present in

varying amounts in rocks and soil, and radon is present in background concentrations in the atmosphere. Current evidence indicates that increased lung cancer risk is directly related to radon-decay products. Radon potential of rocks and soils and indoor radon exposure levels in the United States are currently areas of intense research by governmental regulators as well as the geoscience and medical communities. At this time, the EPA has recommended an "action" level for indoor radon concentrations at or exceeding four pico-curies per liter of air (pCi/l). The EPA has extrapolated a 1% to 3% lung cancer mortality rate due to a lifetime of exposure at four pCi/l; that is, 1 to 3 persons per 100 exposed to this concentration for life will die of lung cancer induced by radon.

The 1990 *California Statewide Radon Survey of Homes*, based on the EPA/State Department of Health Services State Radon Survey (DTSC 1990), predicts that only 3.7% of homes in Placer County would exceed the EPA's recommended level of 4 pCi/l. Additionally, California ranks as the third lowest for percentage of homes exceeding 4 pCi/l of the 33 states participating in the study. Specific indoor radon information for the site can only be obtained subsequent to construction of site buildings where radon testing would be feasible. EPA recommends that all owners test their homes or commercial buildings for radon. Site-specific geology, construction materials and methodologies, use characteristics of building occupants and the quality of construction can all affect indoor radon results.

### 4.1.3 Soil Survey

Review of the July 1980 U.S. Department of Agriculture, Soil Conservation Service (SCS) *Soil Survey of Placer County, California Western Part* indicates the near-surface soils on the site are mapped as "Auburn silt loam, 2 to 15 percent slopes," "Auburn-Argonaut complex, 2 to 15 percent slopes," "Auburn-Rock outcrop complex, 2 to 30 percent slopes," "Auburn-Sobrante silt loams, 15 to 30 percent slopes," "Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes," "Auburn-Sobrante-Rock outcrop complex, 30 to 50 percent slopes," "Auburn-Sobrante-Rock outcrop complex, 50 to 70 percent slopes," "Boomer-Rock outcrop complex, 30 to 50 percent slopes," "Boomer-Rock outcrop complex, 50 to 70 percent slopes," "Caperton gravelly coarse sandy loam, 2 to 30 percent slopes," "Riverwash," and "Rock outcrop."

The Auburn soil consists of four-inch thick strong brown silt loam surface layer underlain by 16-inch thick yellowish red silt loam subsoil. The SCS reports that the underlying material is

weathered basic schist. This soil is reportedly used for irrigated pasture and rangeland due to its shallow nature.

Argonaut soil consists of nine-inch thick strong brown loam and yellowish red silt loam surface layer. The subsoil consists of seven-inch thick yellowish red clay underlain by nine-inch thick yellowish brown dense clay. The SCS reports that the underlying material is weathered basic schist. This soil is reportedly used for irrigated pasture and annual rangeland.

Sobrante soil surface layer consists of seven-inch thick yellowish red silt loam. The subsoil consists of 26-inch thick yellowish red silt loam and heavy loam. The SCS reports that the underlying material is weathered basic schist at 33 inches and hard basic schist at 40 inches. This soil is reportedly used for deciduous orchards, irrigated pasture and annual rangeland.

Boomer soil consists of ten-inch thick brown and yellowish red gravelly loam underlain by 48-inch thick reddish yellow gravelly clay loam. The SCS reports that the underlying material is weathered basic schist. This soil is reportedly used for wood crops such as ponderosa pine.

Caperton soil consists of 12-inch thick mixed dark grayish brown, grayish brow, and brown gravelly coarse sandy loam underlain by six-inch thick pale brown gravelly coarse sandy loam. The SCS reports that the underlying material is weathered granodiorite. This soil is reportedly used for irrigated pasture and annual rangeland.

Riverwash occurs in and along channels of the Bear River. "The material is highly stratified stony and bouldery sand that is typically barren. It is inundated yearly by floodwater. About 50 percent of it is covered with water." "Riverwash is used for watershed."

"Rock outcrop is exposed highly resistant metamorphic rock, andesitic rock, serpentine rock, or syenite rock formations. The rock crops out mainly on steep to very steep slopes that break into the major drainageways." "From 50 to 90 percent of the surface is Rock outcrop and stone. The rest is a thin mantle of soil material." Some of the outcrop is two to five feet high and covers up to one acre. Rock outcrop is used for watershed.

### 4.1.4 Regional Groundwater

The site is located within the Sacramento River Hydrologic Basin, as defined in the October 2003 *Groundwater Basins in California* map by the California Department of Water Resources (DWR). Information pertaining to groundwater elevations and gradient data in the general site vicinity is limited. Personnel with DWR's Surface and Ground Water Data Section informed us that the state presently does not monitor groundwater wells in the site vicinity. Additionally, groundwater elevations and gradients in the area vary considerably, due to the highly fractured nature of the underlying rock. Depth to groundwater at the site can typically range from ground surface to less than 100 feet below the ground surface, based on WKA's field observations.

## 4.2 Historical Use Information

Historical sources were reviewed in order to develop a history of the previous uses of the *site* and surrounding area. By doing so, historical sources help identify the likelihood of past uses having led to *recognized environmental conditions* in connection with the *site* and adjoining properties. Standard historical sources reviewed during the preparation of this report included one or more of the following, as available:

- Fire Insurance maps (Sanborn® Maps)
- Topographic maps
- Aerial photographs
- Building department records
- Local street directories
- Zoning/land use records and
- Other historical sources

### 4.2.1 Sanborn® Maps

The availability of Sanborn® Maps with coverage of the site area was determined by Environmental Data Resources, Inc. (EDR®), Sanborn® Maps are detailed drawings of site development, and were typically used by fire insurance companies to determine site fire insurability. Sanborn® Maps coverage of the site was not available.

### 4.2.2 Topographic Maps

Historic United States Geological Survey (USGS) topographic maps with coverage of the subject and outlying land areas were reviewed. Topographic maps of the *Wolf Quadrangle* for years dated 1895, 1949, 1973, 1995, and 1998 were available for review. The maps are each discussed below. The 1998 map was adapted to serve as Figure 2 of this report. In general, the reviewed topographic maps reveal minimal changes on the site.

1895 Map
Scale 1" = 10,417'

The 1895 map shows the site to be undeveloped land located within an undeveloped area south of the Bear River. Bald Rock Mountain is identified and has an elevation of +1,674 feet msl. Three northwest/southeast-trending stream channels are mapped bisecting the site; the stream channels drain into the Bear River. Ranches and towns, as well as the City of Grass Valley are mapped northerly from the site. No other significant site or area features are mapped on the 1895 topographic map.

1949 Map
Scale 1" = 5208'

Minor change is mapped on the site. Nearly the entire site is mapped as wooded land. The three stream channels are now mapped as intermittent streams. The elevation of Bald Rock Mountain is now +1,695 feet msl. One unimproved access road loops on and off the site near its southeast boundary. A trail bisects the northeast boundary and trends northwest/southeast just north of Bald Rock Mountain.

Cranston Ranch is mapped near the southeasterly site boundary; Cranston Ranch was later redeveloped as the Auburn Country Club and Auburn Valley residential development. State Highway 49 is mapped less than two miles east of the site. The Bear River is now marked as the Placer County/Nevada County political boundary.

1973 Map
Scale 1" = 2000'

One small structure is mapped on the site. The structure is located where the easternmost concrete slab was observed in the borrow area. Two reservoirs and the north portion of a third reservoir are now mapped on the site. Additionally five small ponds are mapped in the location of the former wastewater ponds. The contour lines in the vicinity of the ponds and reservoirs have changed since the 1949 mapping, suggesting the banks or dams of these features were built up during excavation. Four additional intermittent stream channels are mapped on the site; three of the streams discharge to on-site and off-site reservoirs. Additional ponds and reservoirs are mapped on and around the Cranston Ranch. Improved and unimproved access roads and trails are mapped on the south, central and northeast sides of the site.

1995 Map
Scale 1" = 2000'

The structure is no longer mapped on the site. Six additional small ponds are mapped on the site. Five sewage disposal ponds are now identified as such. The mapping of the sewage disposal ponds is incorrect, in that one mapped pond is elongate. Based on the aerial photograph review, two ponds are actually present. Several additional four-wheel drive trails and unimproved roads are mapped on the westerly and northeasterly sides of the site.

Improved roads for the Auburn Country Club and adjacent residential community are mapped east of the site. The clubhouse and several dwellings either within a planned community or rural setting are also mapped east of the site. Bald Rock Mountain is now mapped with an elevation of +1,694 feet msl.

1998 Map
Scale 1" = 2000'

No significant changes are mapped on the site or adjacent land areas relative to the 1995 topographic map.

In summary, each of the reviewed topographic maps reveals that the site is located in a historically rural and wooded area of northern Placer County. As shown on the maps, the ground surface

elevation of the site ranges from approximately +460 feet up to +1,694 feet msl. No evidence was observed on the topographic maps to suggest the site was disturbed by human activities typically mapped by the USGS, such as the following: quarrying; installation or removal of pits, occurrences of dredging or subsurface or surface mining.

### 4.2.3 Aerial Photographs

Historic aerial photographs of the site and general vicinity were obtained from Cartwright Aerial Surveys. Photographs covering the years 1962, 1971, 1989 and 2001 were reviewed; the results of the photographic review are discussed below by year. Consistent with the previously discussed topographic maps, the reviewed years of aerial photography reveal only minimal changes on the site during the past 44 years.

July 29, 1962
Identification Numbers: PLA 3-66 through –68, 3-19 and -20
Scale: 1" = 1667'

The site supports woodlands and grasslands. Unimproved dirt roads are visible on the east and central portions of the site. Two ponds, and a third that appears to be under construction, are located on the east and central portions of the site. The ponds are dammed on the westerly down-slope sides. The south reservoir is also constructed by this time and also has dams on the westerly and southerly down-slope sides. A ditch containing water discharges to the pond on its southeast side.

The majority of the Auburn Valley Country Club has been constructed by this time. The clubhouse, south nine holes and numerous ponds are visible. The Bear River is visible north of the site. Improved and unimproved roads are visible in the vicinity of the site. The majority of the surrounding land area is wooded.

June 14, 1971
Identification Numbers: 2942-08-025, -026, -064 and -065
Scale: 1" = 1667'

The second reservoir is constructed by this time and is dammed on the westerly side. The wastewater treatment plant is under construction on the site. The borrow area is excavated by this

time and one 250-foot long structure is visible in the vicinity. The change in rooflines of the structure suggests the majority may have been covered storage with a small square building, possibly an office, on the southeast corner. Nothing is stored around the exterior of the building, although several unidentified items are visible on the southwest side of the borrow area. More unimproved access roads are visible on and off the site. The north nine holes of the golf course are constructed by this time.

May 16, 1989
Identification Numbers: 89189 2-21 and –22, 3-22 and -23
Scale: 1" = 2000'

The wastewater treatment plant is completed by this time; six sewage treatment ponds are present. A large pond is visible on the southwest side of the site. The building is no longer apparent on the site, although two concrete slabs are visible. Stored items or debris, including the 10,000-gallon UST, and soil piles are visible in the borrow area. The residential neighborhood on the east side of the golf course is under construction. Some rural residential sites are apparent east and south of the site.

May 29, 2001
Identification Numbers: SAC 01 16-39 and -40, 17-37 and 038
Scale: 1" = 2000'

By 2001, the site looks similar to its current appearance. The access roads and ponds are still visible, although the cattle holding areas and corral are not apparent. The borrow area contains more debris by this time. Rural residential development is apparent east and south of the site.

### 4.2.4 Ownership Records

WKA obtained ownership information through ParcelQuest®. ParcelQuest® is an on-line distributor of "Assessor-Direct property information throughout the State of California." According to a *Detail Report* for the site, the site owner is listed as Harvego Real Estate LLC.

### 4.2.5 Building Department Records

Archived permit records for the site were reviewed at the Placer County Building Department. This office maintains structural, demolition and other permit records on microfilm dating back to the 1960s. The Building Department was unable to fulfill the request for information due to the agency moving to another building.

### 4.2.6 Local Street Directories

Historic business (street) directory listings with coverage of Placer County and Auburn were obtained by EDR®, a commercial database service. The directories contain business and residential listings based on street number identifiers. The site has an address of 9895 Auburn Valley Road. The site does not appear in any of the directories.

### 4.2.7 Zoning/Land Use Records

According to information obtained from the Placer County Planning Department, the site is zoned for "FB-X 160," "FB-X 10 ac. min PD = 0.2," "FB-X 20 ac. min PD = 0.2," which indicate farms with a farm building and acreage minimums; and "RS-AG-B-X 10 ac min PD = 0.2," which indicates a residential single-family building, agriculture and farm building.

### 4.2.8 Other Historical Sources

Ms. Carmel Barry-Schweyer, Curator of Archives for the Placer County Museums, was interviewed in person on July 25, 2006, regarding historical maps or documents that identify locations of mines or mining claims for Placer County. Ms. Barry-Schweyer assisted WKA with locating the following maps:

- Official Placer County Map showing U.S. land surveys, mining claims, altitudes, roads, ditches, towns and villages and school districts (E.C. Uren, County Surveyor, 1887)
- Placer County Plat Maps, Township 10, 12-14 North, Range 7-8 East (no date)
- Placer County Map showing mining communities and sites (mapped on a 1981 base map).

All of the reviewed maps identified the Bear River. The plat maps identify the owner at the time of mapping. B.F. Graham and C.F. Roth are identified as owners of portions of the site. A third owner was listed but was illegible. The westernmost portion of the site was listed as not assessed for taxes at that time and did not identify the owner(s). Based on the lack of identification of assessed lands around the site, one may assume the plat maps are approximately 100 years old. The other two maps identify no land surveys, mines, mining claims, roads, ditches, towns, villages, mining communities or any other features on the site.

WKA reviewed the 1999 *Mercury Contamination from Hydraulic Placer-Gold Mining in the Dutch Flat Mining District, California* by M.P. Hunerlach, J.J. Rytuba and C.N. Alpers. The document states "Mercury contamination at historic gold mining sites represents a potential risk to human health and the environment. Elemental mercury (quicksilver) was used extensively for the recovery of gold at both placer and hardrock mines throughout the western United States. In placer mine operations, loss of mercury during gold recovery was reported to be as high as 30 percent." The document also states "Elevated mercury concentrations have been detected previously in fish and invertebrate tissues downstream of the placer mines. Extensive transport of remobilized placer sediments [which releases mercury] in the Bear River and other Sierra Nevada watersheds has been well documented. Previous studies in the northwestern Sierra Nevada have shown that the highest average levels of mercury bioaccumulation occur in the Bear and South Fork Yuba River watersheds; this study has demonstrated a positive correlation of mercury bioaccumulation with intensity of hydraulic gravel mining."

### 4.2.9 Prior Assessments and Documents

WKA reviewed the following documents:

- *Phase I Environmental Site Assessment for Proposed Residential Development Auburn Valley Country Club* by Terrasearch, Inc., May 28, 1999

- *Phase II Environmental Site Assessment, Auburn Valley Country Club* by Terrasearch, Inc., December 2, 1999

- *Notice of Adoption of Revised Waste Discharge Requirements for Auburn Valley Community Services District, Auburn Valley Country Club* (WDR) by California Regional Water Quality Control Board (CRWQCB), March, 8, 2002

- *Abandonment Completion Report, Auburn Valley Community Services District Wastewater Pond Treatment System* by 7H Technical Services Group, Inc., January 2004

- Letter to Mr. Lloyd H. Harvego from Thurbon & McHaney, L.P. Attorneys at Law

The Phase I report was completed for a portion of the site. The report identifies the sewage treatment ponds and a ranch dump (the abandoned items, debris and soil piles located in the borrow area). The recommendations include sampling the downstream waters for leaching sewage, obtain a closure letter for the sewage ponds from the CRWQCB, and sampling and analyzing soils from beneath two discarded USTs and from within the partially buried debris area and discolored soil areas at the ranch dump.

The Phase II report states that three water samples were collected from a stream channel down-gradient from the sewage disposal ponds. Seven test pits were excavated in the debris area and four were sampled at two feet below ground surface (bgs). Two samples were also collected at two feet bgs beside one UST. The other UST discussed in the Phase 1 report is not mentioned in the Phase II report and no samples were collected. The conclusions and recommendations indicate that the trash and debris is located on the surface and is not buried. The debris soil samples contained kerosene in one sample and motor oil in two other samples, but are low enough not to warrant additional investigation. Petroleum hydrocarbons, methyl tert-butyl ether or solvents did not impact the soils adjacent to the UST. The water samples contained high concentrations of fecal coliform. The Phase II report recommends proper closure of the sewage treatment ponds.

The information sheet in the WDR is written for the new wastewater treatment system. The WDR explains that the sewage treatment pond system failed and requires abandonment. The new wastewater treatment system is an underground tertiary level activated sludge system that is located in "no play" areas of the golf course. Monthly, quarterly and annual reports for influent, effluent, sludge and groundwater monitoring are to be submitted to the CRWQCB.

The pond abandonment report indicates that three of the six ponds contained sludge that required removal. Liquid and dried sludge were removed from the ponds between the summer of 2003 and January 2004. Subsequent to sludge removal the pond bottoms were sampled and analyzed for volatile solids; very low levels of volatile solids were detected in the soil samples.

According to the letter from Thurbon and McHaney, L.P., the county and state do not issue "certifications" for closure of sewage treatment ponds. The letter states "The agencies rely on the final clean up report... and the CRWQCB performs a site inspection and reports violations, if any. Based on [CRWQCB engineer] Mr. Child's site visitation there were no violations noted or reported and the District's work is complete. Use of the ponds is at the discretion of the property owner, Mr. Harvego.

## 4.3 Environmental Record Sources

WKA contracted with EDR® to review the regulatory agency databases (EDR® June 2006). To maintain currency of the federal, state and tribal databases, EDR contacts the appropriate governmental agencies on a monthly or quarterly basis, as required by the ASTM Standard. EDR® used the ASTM-designated search radii during review of the regulatory agency databases shown on Table 1.

In summary, no confirmed state or federal "Superfund" facilities on or within one mile of the site were identified during review of the former DHS's Bond Expenditure Plan, the U.S. EPA's National Priorities List (NPL) and the Cal-EPA's Annual Workplan Sites list. No potential federal Superfund sites appeared on or within one-half mile of the property during review of U.S. EPA's *Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)*. Additionally, the site and adjacent land areas are not listed as *Resource Conservation and Recovery Act (RCRA) Generator*. The site does not appear in U.S. EPA's *Emergency Response Notification System (ERNS)* database. No RCRA *Treatment, Storage or Disposal (TSD)* facilities are located on or within one-half mile of the site.

No known contaminated municipal groundwater wells or active or inactive landfills are listed on, adjacent to, or within one-half mile of the site. Review of various state databases including but not limited to OEHHA's *Hazardous Waste and Substances Sites List*, the RWQCB *Leaking Underground Storage Tank* database and the Placer County EHD *Master List of Facilities*, reveal

one known contaminated facility within one-half mile of the site. The facility, Auburn Valley Country Club, experienced an unauthorized release from a UST. Based on our July 27, 2006, telephone interviews with Placer County EHD representatives Ms. Brenda Noxon and Mr. Dave Buck, soil contamination was discovered during an in-place abandonment of a 500-gallon UST. Either a minor amount of soil was affected or the levels were low enough not to warrant additional investigation and the facility received closure status from the CRWQCB on April 15, 1996.

The Placer County EHD *Master List of Facilities* and the SWRCB *UST* and *AST* databases revealed that one facility with USTs and ASTs registered for the use and/or storage of reportable quantities of hazardous materials, are located within one-half mile of the site. The Auburn Valley Country Club had a 500-gallon UST and now has a 1,550-gallon AST. Additionally the facility is listed in the Placer County EHD database as generating aboveground hazardous waste and is listed on the HAZNET database for the removal of the hazardous waste. The databases indicate that the facility has no violations with regard to hazardous waste generation or disposal.

The site does not appear in any of the agency databases reviewed during preparation of this report. Table 1 provides a summary of the agency database search and the number of listed facilities within the minimum search radius for each database for the site.

### 4.3.1 California Oil/Gas Well Maps

Review of California Department of Conservation, Division of Oil and Gas (DOG) map *W6-1*, revealed the site is located outside the mapped areas that support natural gas fields. Therefore, no producing or abandoned DOG petroleum wells are located on or within one-half mile of the site.

# 5. CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Data Gaps

The historical research presented in this report documented the site conditions back to 1887. The time intervals between the Standard Historical Sources exceeded the minimum five-year period and therefore represent data gaps. Data gaps exist between 1885 and 1949, 1962 and 1971, 1973 and 1989, and 1989 and 1995. The on-site building was constructed between 1962 and 1971. The last portion of the structure was demolished between 1973 and 1989. The data gaps are not considered significant in terms of identifying recognized environmental conditions related to the site since the overall use of the site during the years where the data gaps were identified has not changed significantly over time. No other data gaps were identified during the preparation of this report.

## 5.2 Conclusions

The historic land use research dating back to 1887, which included reviews of topographic maps, aerial photography, assessor records, and other ASTM standard historical documents, as available, reveals that the site was historically undeveloped land with access roads through the 1940s. Dammed ponds and reservoirs were created on the site after 1949 through 1973. The sewage disposal ponds were constructed in 1971; at the same time a structure existed on the borrow area of the site. The structure was razed by 1989, at which time the abandoned items and debris piles existed. The sewage disposal ponds were closed by 2004. Agriculture on the site has consisted of rangeland and irrigated pasture for cattle. Two water supply wells exist on the site. The site has no known history of having contained USTs, sumps, oil/water separators, hydraulic lifts, dry cleaners or agricultural chemical facilities.

Field reconnaissance, review of agency records, and interviews with local regulatory officials did not reveal current evidence of hazardous materials contamination on the site. Debris and soil piles, abandoned items and an area with a hardened black substance were observed on the site in the former borrow/structure area. The adjacent Auburn Valley Country Club facility received closure status from the CRWQCB for the in-place abandonment of a UST.

## 5.3 Recommendations

Fallow land, rangeland and irrigated pasture typically require little to no applications of environmentally persistent pesticides and we anticipate that the potential for residual agricultural chemical concentrations to exist in surficial soils is low. Therefore, WKA's professional opinion is that sampling and testing surficial site soils for potential persistent pesticide residuals is not necessary.

As indicated in a previous section of this report, the site contains debris and soil piles and abandoned items. As indicated previously, surface soils beneath these items were not evaluated for potential hazmat impacts. However, since most of the items and debris do not appear to be of an obvious hazardous materials nature, WKA simply recommends that all debris and rubble, including the hardened black substance, be removed and appropriately disposed or recycled off site. WKA recommends that surface soils on these areas of the site be visually inspected following the removal of the items, debris and hardened substance. If visual or olfactory evidence of potential soils contamination is observed in the soils beneath the items, debris and hardened substance, soils sampling and testing may in fact be warranted.

The subject property contains two water supply wells; one well supplies water to the golf course residential community. If the use of the irrigation water supply well will cease in the future, the water supply well must be properly destroyed; this procedure requires a well abandonment permit from the Placer County Department of Environmental Health. The former structure area may have had a septic system. The septic system is unlikely to have affected subsurface soils with hazardous materials, based on conventional residential effluent as opposed to commercial or industrial wastewater discharges. When the site is redeveloped, the septic system and associated leachfield, should they exist, must be abandoned in accordance with the recommendations of a qualified geotechnical engineer.

In summary, WKA has performed this Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E 1527-00 for the Bruin Ranch located at 9895 Auburn Valley Road, Placer County, California. Any exceptions to, or deletions from, this practice are described in Section 5.4 of this report. This assessment has revealed no evidence of existing RECs in connection with the site.

## 5.4 Exceptions and/or Deletions

No exceptions or deletions from the ASTM E 1527-00 standard were made during the preparation of this Phase 1 ESA.

## 5.5 Additional Services

No additional services were requested or performed during the preparation of this Phase 1 Environmental Site Assessment.

## 6. LIMITATIONS

The statements and conclusions in this report are based upon the scope of work described above and on observations made only on the dates of the field reconnaissance. Work was performed using a degree of skill consistent with that of competent environmental consulting firms performing similar work in the area. Information regarding the site that is *publicly available* and *practically reviewable,* as described in the ASTM standard was obtained. Additional research or receipt of information regarding the site that was not disclosed or available to WKA during this assessment may result in revision of the conclusions.

The conclusions in this report should be reevaluated if site conditions change. No recommendation is made as to the suitability of the site for any purpose. The results of the assessment do not preclude the possibility that materials currently or in the future defined as hazardous are present on the site, nor do the results of the work guarantee the potability of groundwater beneath the site. This report is applicable only to the investigated site and should not be used for any other site. No warranty is expressed or implied.

# 7. REFERENCES

American Society of Testing and Materials (ASTM), 2000, E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, November 1, 2000.

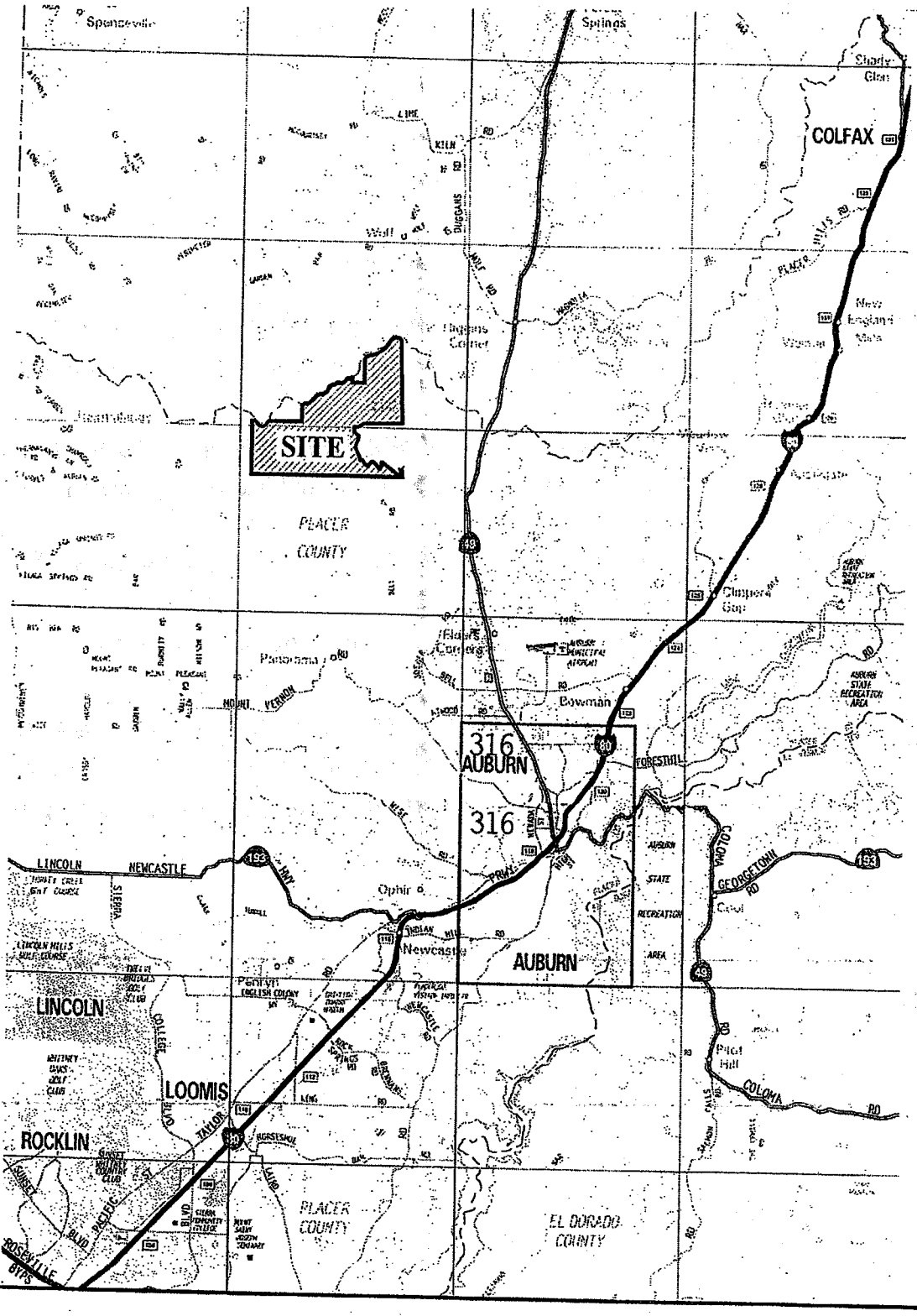
Kohler, S.L., 1984, *Mineral Land Classification of the Auburn 15-Minute Quadrangle, El Dorado and Placer Counties, California,* California Division of Mines and Geology Open-File Report 83-37 SAC, 48 p., 9 plates

U.S. Department of Agriculture, Soil Conservation Service (SCS), 1980, *Soil Survey of Placer County, California Western Part*, July

State of California, Department of Water Resources (DWR), 2003, *Groundwater Basins in California* map, October

California Department of Toxic Substances Control (DTSC), 1990, *California Statewide Radon Survey of Homes*, based on the EPA/State Department of Health Services State Radon Survey

Environmental Data Resources, Inc. (EDR), 2006, The EDR Radius Atlas with GeoCheck, Bruin Ranch, Inquiry Number 1702820.2s, June 23




Adapted from the Compass Maps
Placer County
Street and Road Atlas, 2004 Edition.

0 1.5 3
SCALE IN MILES

WALLACE-KUHL & ASSOCIATES, INC.

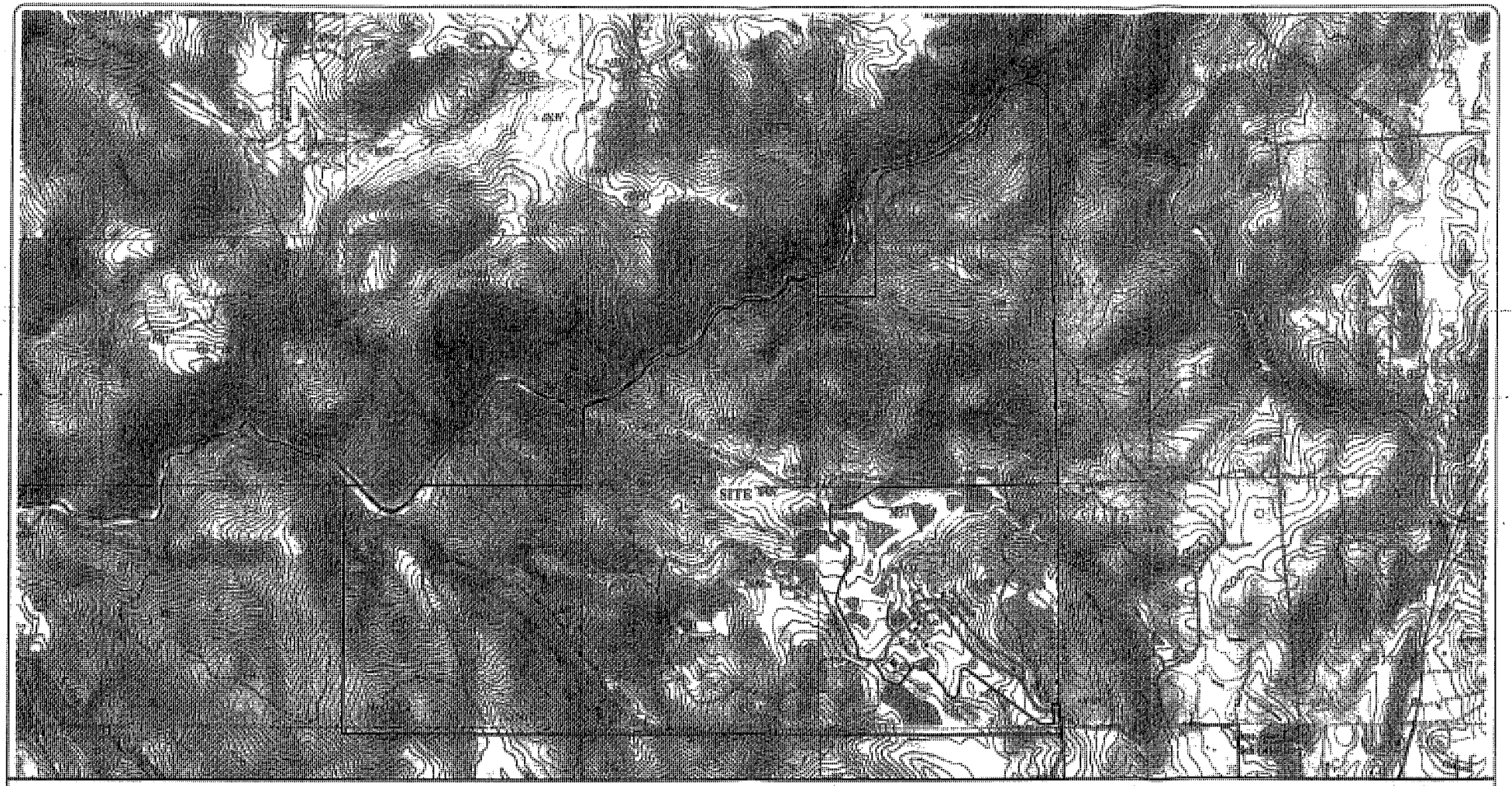
**VICINITY MAP**

BRUIN RANCH

Placer County, California

| FIGURE | 1 |
|---|---|
| DRAWN BY | TLH |
| CHECKED BY | JMB |
| PROJECT MGR | JMB |
| DATE | 07/06 |

WKA NO. 7225.01




Notes:

Adapted from the U.S. Geological Survey 7.5 minute topographic map of the Auburn quadrangle, California, 1981.

Site boundary is approximate.

0 1000 2000
SCALE IN FEET

WALLACE-KUHL
& ASSOCIATES, INC.

TOPOGRAHIC MAP

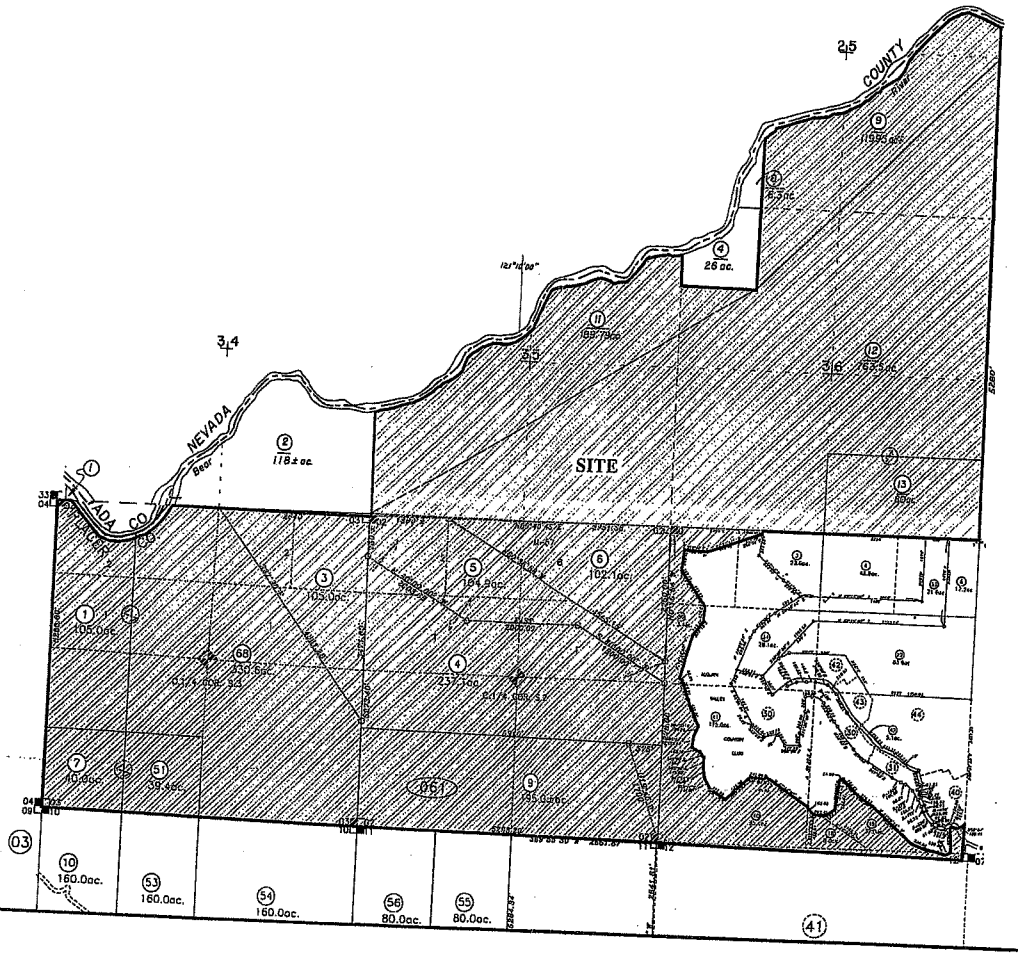
BRUIN RANCH

Placer County, California

FIGURE 2

| | |
|---|---|
| DRAWN BY | TLH |
| CHECKED BY | [illegible] |
| PROJECT MGR. | [illegible] |
| DATE | [illegible] |

WKA NO. 7225.01




Adapted from the Placer County
Assessor's Map Book 26, Pages 2, 6 and 37.

0 1000 2000
SCALE IN FEET

WALLACE-KUHL
& ASSOCIATES, INC.

**PARCEL MAP**

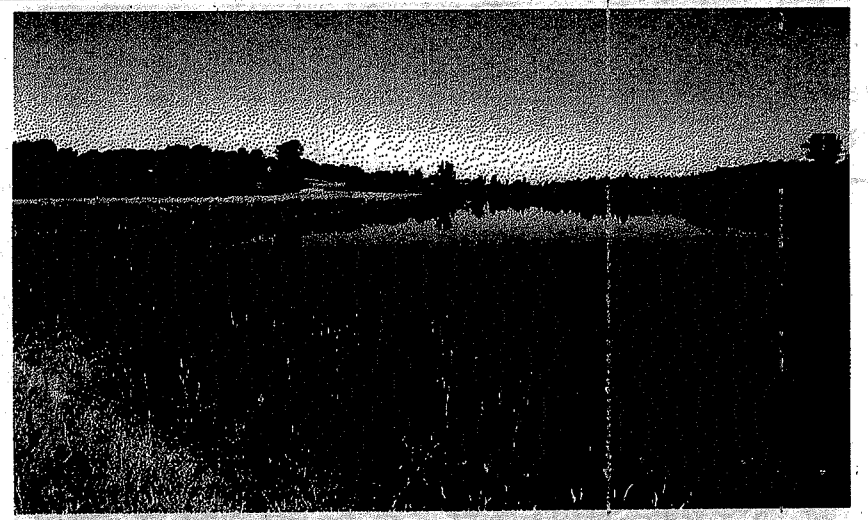
BRUIN RANCH

Placer County, California

FIGURE 3

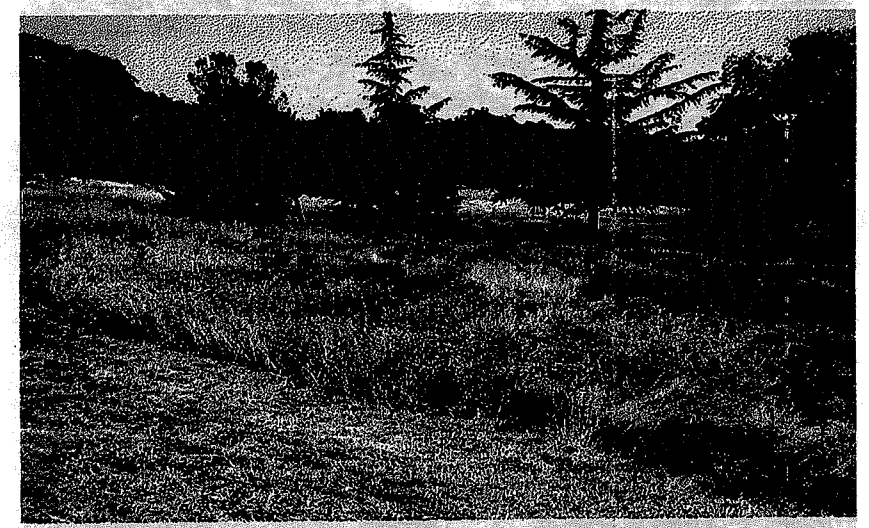
| | |
|---|---|
| DRAWN BY | TLH |
| CHECKED BY | JMB |
| PROJECT MGR | JMB |
| DATE | 07/06 |

WKA NO. 7225.01



Northerly view of the west side of the south reservoir.

View of metal debris located southwest of the south reservoir near the southerly boundary



Southwesterly view of the southeast portion of the site as seen from Auburn Valley Road.

Northwesterly view of one of the concrete slabs and debris located in the former borrow/structure area.

WALLACE-KUHL & ASSOCIATES, INC.

**COLOR PHOTOGRAPHY**

BRUIN RANCH

Placer County, California

FIGURE 4

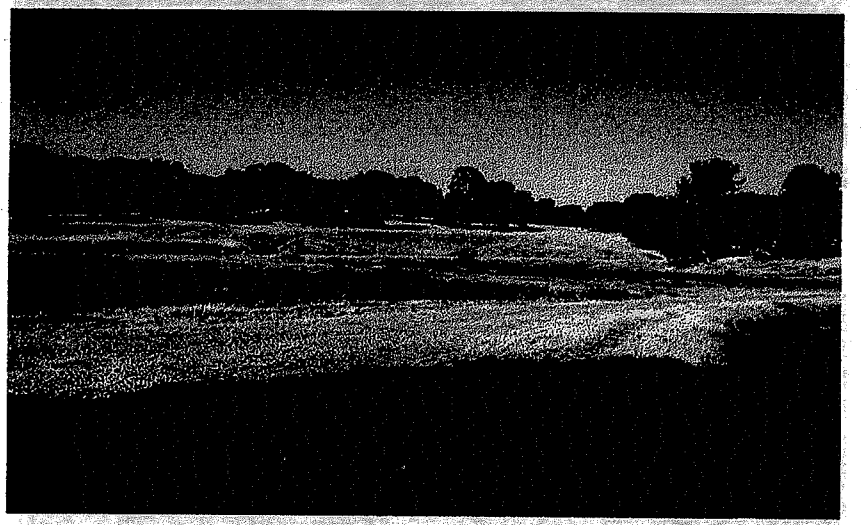
| | |
|---|---|
| DRAWN BY | JMB |
| CHECKED BY | JMB |
| PROJECT MGR | JMB |
| DATE | 07/06 |

WKA NO. 7225.01

View of debris and soil piles and abandoned items located on the west side of the former borrow/structure area.

View of the hardened black substance and debris and soil piles on the west side of the former borrow/structure area.

View of rock walls on the central portion of the site.



View of three former sewage ponds and an access road.

WALLACE-KUHL & ASSOCIATES, INC.

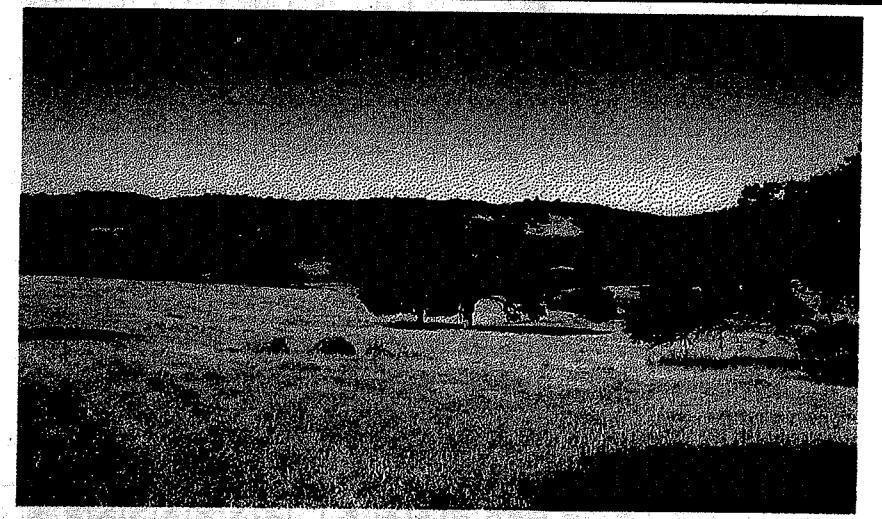
**COLOR PHOTOGRAPHY**

BRUIN RANCH

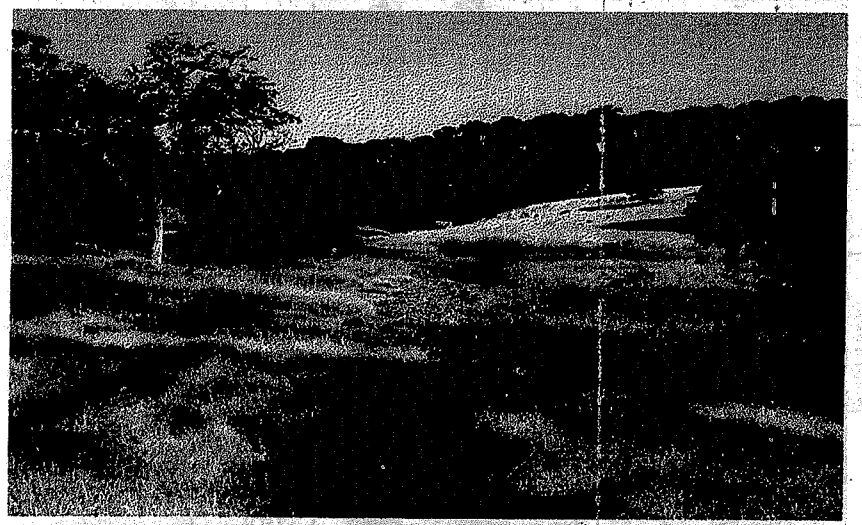
Placer County, California

| FIGURE 4 | |
|---|---|
| DRAWN BY | JMB |
| CHECKED BY | JMB |
| PROJECT MGR | JMB |
| DATE | 07/06 |
| WKA NO. 7225.01 | |

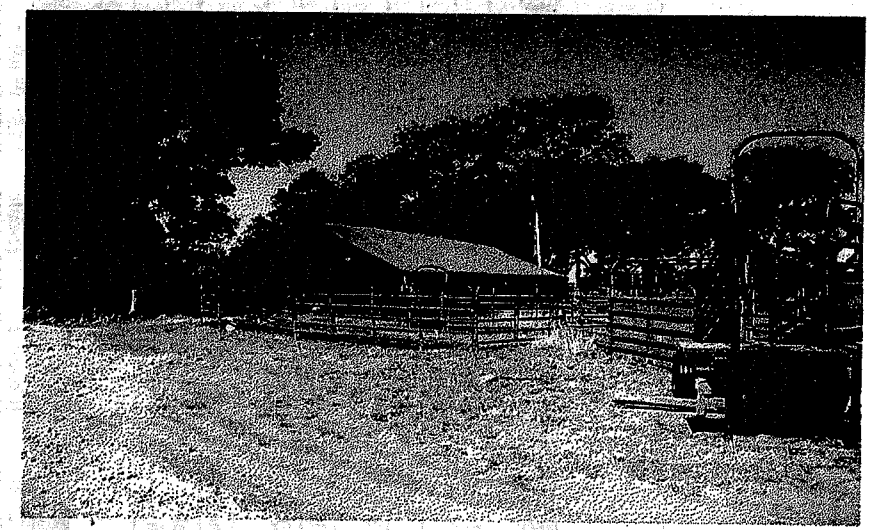
View of the northerly reservoir.



Southeasterly view of a valley on the northeast side of the site.



View of a stream channel on the northeast side of the site.



View of the corral and sheltered cattle work area.

WALLACE-KUHL & ASSOCIATES, INC.

**COLOR PHOTOGRAPHY**

BRUIN RANCH

Placer County, California

FIGURE 4

| | |
|---|---|
| DRAWN BY | JMB |
| CHECKED BY | JMB |
| PROJECT MGR | JMB |
| DATE | 07/06 |

WKA NO. 7225.01

Table 1

AGENCY DATABASE SEARCH

| | EDR Listed Database | ASTM E 1527-00 Search Distance | Date of Government Version | Date of last EDR contact | No. of Facilities Listed (within Search Radius) | Facility Listings |
|---|---|---|---|---|---|---|
| **Federal** | | | | | | |
| Federal NPL Site List | *NPL* | 1-mile | 04/19/06 | 05/05/06 | 0 | |
| Federal Delisted NPL Site List | *Delisted NPL* | 1/2-mile | 04/19/06 | 05/05/06 | 0 | |
| Federal CERCLIS List | *CERCLIS* | 1/2-mile | 02/01/06 | 06/22/06 | 0 | |
| Federal CERCLIS NFRAP Site List | *CERCLIS NFRAP* | 1/2-mile | 02/01/06 | 03/21/06 | 0 | |
| Federal RCRA CORRACTS Facilities List | *CORRACTS* | 1-mile | 03/15/06 | 05/21/06 | 0 | |
| Federal RCRA Generators List: | *RCRAInfo* | | | | | |
| Small Quantity and Large Quantity Generators | *RCRA SQG* | property & adjoining | 03/09/06 | 04/27/06 | 0 | |
| | *RCRA LQG* | | 03/09/06 | 04/27/06 | 0 | |
| Treat, Store and Dispose Facilities | *RCRA TSDF* | 1/2-mile | 03/09/06 | 04/27/06 | 0 | |
| Federal Institutional Control / Engineering Control Registries | *US ENG Controls* | property only | 03/21/05 | 03/03/06 | 0 | |
| | *US INST Controls* | | 03/21/05 | 03/03/06 | 0 | |
| Federal Brownfield Sites | *US Brownfields* | 1/2-mile | 04/26/06 | 06/12/06 | 0 | |
| Federal ERNS List | *ERNS* | property only | 12/31/05 | 04/26/06 | 0 | |
| **State** | | | | | | |
| State-equivalent NPL (Cal-Sites) | *Cal-Sites* | 1-mile | 08/08/05 | 05/10/06 | 0 | |
| State-equivalent CERCLIS | *AWP* | 1/2-mile | 08/08/05 | 05/10/06 | 0 | |
| State Landfill and/or Solid Waste Disposal Site Lists | *SWF/LF (SWIS)* | 1/2-mile | 03/13/06 | 06/14/06 | 0 | |
| | *WMUDS/SWAT* | | 04/01/00 | 06/19/06 | 0 | |
| State Leaking Underground Storage Tanks | *LUST-Geotracker* | 1/2-mile | 04/01/06 | 04/27/06 | 1 | Auburn Valley Country Club 8800 Auburn Valley Road |
| Tribal Leaking Underground Storage Tanks | *Indian LUST* | 1/2-mile | 03/01/06 | 02/20/06 | 0 | |
| State Registered Underground Storage Tanks | *UST* | property & adjoining | 04/10/06 | 04/11/06 | 1 | Auburn Valley Country Club 8800 Auburn Valley Road |
| Tribal Registered Underground Storage Tanks | *Indian UST* | property & adjoining | 03/01/06 | 05/23/06 | 0 | |
| State Registered Aboveground Storage Tanks | *AST* | property & adjoining | 01/30/06 | 05/26/06 | 1 | Auburn Valley Country Club 8800 Auburn Valley Road |
| State Institutional Control Registries [No State-equivalent for Eng. Controls] | *DEEDS* | property only | 04/04/06 | 04/05/06 | 0 | |
| State Voluntary Cleanup Sites | *VCP* | 1/2-mile | 08/08/05 | 06/07/06 | 0 | |
| **Local - County & City** | | | | | | |
| Placer County Master List (ASTs, USTs, Cleanup Sites) | Pla Co MS | 1/2-mile | 4/3/2006 | 3/20/2006 | 1 | Auburn Valley Country Club 8800 Auburn Valley Road |
| **Additional Environmental Record Sources** | | | | | | |
| Hazardous Waste & Substances Sites List | *CORTESE* | 1/2-mile | 4/1/2001 | 4/25/2006 | 1 | Auburn Valley Country Club 8800 Auburn Valley Road |
| SLIC | *SLIC* | 1/2-mile | 4/1/2005 | 4/5/2006 | 0 | |
| Cleaner Facilities | *Drycleaners* | 1/4-mile | 4/18/2005 | 4/3/2006 | 0 | |
| HAZNET | *HAZNET* | 1/4-mile | 12/31/2003 | 2/24/2006 | 1 | Auburn Valley Country Club 8800 Auburn Valley Road |

Phase I Environmental Site Assessment–Taylor Ranch

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# PHASE I ENVIRONMENTAL SITE ASSESSMENT
# TAYLOR RANCH (APNs 026-110-001-000 & 026-120-028-000)
# ORR CREEK LANE
# AUBURN, PLACER COUNTY, CALIFORNIA

Prepared By

Youngdahl Consulting Group, Inc.
1234 Glenhaven Court
El Dorado Hills, California 95762

Prepared For

The Trust for Public Land
116 New Montgomery, 3rd Floor
San Francisco, CA 94105

Project No. R04178.006
March 2007

YOUNGDAHL CONSULTING GROUP, INC.
Geotechnical ▪ Geoscience ▪ Materials Testing ▪ Storm Water Compliance
1234 Glenhaven Court, El Dorado Hills, CA 95762
PH 916.933.0633 FX 916.933.6482
502 Giuseppe Court, Suite 2, Roseville, CA 95678
PH 916.773.7633 FX 916.773.7833
EM mail@youngdahl.net

*Privileged & Confidential*

Project No. R04178.006
30 March 2007

The Trust for Public Land
116 New Montgomery, 3rd Floor
San Francisco, CA 94105

Subject: **TAYLOR RANCH (APNs 026-110-001-000 & 026-120-028-000)**
**ORR CREEK LANE, AUBURN, PLACER COUNTY, CALIFORNIA**
**PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Reference: 1. Proposal and Contract for PE07-045; Prepared by Youngdahl Consulting Group, Inc.; dated 1 February 2007.

Dear Mr. Park:

As requested, Youngdahl Consulting Group, Inc., has performed a Phase I Environmental Site Assessment for Taylor Ranch (subject property). The subject property is located at the terminus of Orr Creek Lane in Auburn, Placer County, California (Figure 1 - Vicinity Map). The 320.5-acre property is assigned the following Placer County assessors parcel numbers (APNs): 026-110-001-000 and 026-120-028-000. The subject property is currently undeveloped grazing land that was previously used as cattle grazing land and for gold exploration. A small portion of the property, at the southeast portion north of Coon Creek, was historically mined. A lode gold mine, identified as 161 on the CDMG Open-File Report 95-10, is present on the property. Mine waste rock is present to the south of the mine shaft. This mining feature has not been active since 1968. Nevada Irrigation District (NID) flows into Coon Creek across the southern portion of the property. There is a narrow one-lane gravel county road that provides access to the property from Bell Road (approximately 0.4 miles to the east). There are two small cabins at the mine and a recreational day cabin on parcel 026-120-028-000. There is a small NID concrete diversion dam at the junction of Coon Creek and Camp Far West Canal at the southwestern portion of parcel 026-120-028-000. Adjacent property includes rural residential property, residential subdivisions, and cattle grazing land.

Our study consisted of a review of environmental record sources, physical setting sources, review of site related documents, historical use information, and a site reconnaissance. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property. Placer County and the Regional Water Quality Control Board – Central Valley District noted that investigation into the contents of the mine shaft would be prudent to confirm that only vegetation is present in the shaft and that decaying material would not create a physical hazard on the property.

This Phase I Environmental Site Assessment has been completed in accordance to the ASTM Practice E 1527-05. Youngdahl Consulting Group, Inc. (YCG) declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Very truly yours,
Youngdahl Consulting Group, Inc.

Reviewed by:

Laurie B. Israel, R.E.A.
Senior Environmental Scientist

Roy C. Kroll, C.E.G., R.E.A.
Associate/Environmental Manager

Distribution: Mr. Robin Park, TPL (3 copies)

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Phase I ESA Questionnaire
Telephone Conversation Records
Preliminary Title Document
EDR Environmental LienSearch Report

Appendix B – Historical Record Documentation
EDR Radius Map Report with GeoCheck®
EDR Aerial Photo Decade Package
EDR Historical Topographic Map Report
EDR City-Directory Abstract
EDR Sanborn® Map Report - No coverage

# PHASE I ENVIRONMENTAL SITE ASSESSMENT
# TAYLOR RANCH (APNs 026-110-001-000 & 026-120-028-000)
# ORR CREEK LANE
# AUBURN, PLACER COUNTY, CALIFORNIA

## EXECUTIVE SUMMARY

Taylor Ranch, described herein, is based on a parcel map received from The Trust for Public Land (TPL). Topographic maps are the basis for the "Vicinity Map" - Figure 1. The property is assigned the following Placer County assessors parcel numbers (APN): 026-110-001-000 and 026-120-028-000. Taylor Ranch is situated in Section 13, Township 13 North, Range 7 East of the Mount Diablo Base and Meridian. The subject property is currently undeveloped land that is used for cattle grazing. Historically the property was used as cattle and horse grazing property and for gold exploration. A lode mine with vertical shaft covered at the surface with vegetation and other inert debris (wood, concrete, vegetation, and miscellaneous trash), a waste rock pile, and associated structures are located at the eastern boundary of parcel 026-120-028-000, north of Coon Creek. Hazardous materials containers, 55-gallon drums, automotive batteries or tires were not observed in the debris at the surface of the shaft. The materials contained in the subsurface portions of the mine shaft are unknown. A waste rock pile was observed immediately adjacent to the south of the mine shaft. The approximate quantity of waste rock is estimated to be approximately 50 cubic yards. Milling operations do not appear to have been conducted at the mine site. Ground rock was not observed during the site visit. Dilapidated buildings (one storage and one residential), a water tank, an outhouse, and a pile of plastic pipe were observed in the vicinity of the mine shaft. According to Mr. Taylor (property owner), the adjacent landowner, Mr. Curt Wurst, ranches the subject property and is responsible for depositing debris into the mine shaft. Mr. Wurst stated that mining operations occurred from at least the 1930s until 1968. The miner lived on the property until he died in 1968. It is unknown if the miner used mercury as part of his mining activities. After Miner Paul died, Mr. Jack Taylor (prior owner and John Taylor's grandfather) used the mine to collect and annually burn vegetation (wood and brush) from 1968 until 1993. This practice was continued by Mr. Wurst until approximately 2000. Mr. Wurst stated that to his knowledge, only vegetation was burned in the mine shaft.

Nevada Irrigation District (NID) flows as Coon Creek across the southern portion of the property. There is a narrow one-lane gravel county road that provides access to the property from Bell Road (approximately 0.4 miles to the east). There is a small NID concrete diversion dam at the junction of Coon Creek and Camp Far West Canal at the southwestern portion of parcel 026-120-028-000.

The mine waste rock presented a potential for elevated concentrations of arsenic. A Limited Phase 2 Soil Investigation was conducted to evaluate the waste rock pile. This investigation is presented under separate cover. The results of the investigation indicated that arsenic is NOT present at total concentrations above the Title 22 Total Threshold Limit Concentration (TTLC) of 500 mg/kg. In addition, the waste extraction test identified the material is not soluble above the Soluble Threshold Limit Concentration of 5.0 mg/l. The waste rock has a pH of 5.61. The result of the WET analysis indicated that soluble concentrations of arsenic in the waste rock pile is not detected above the reporting limit of 0.2 mg/l. This value is below the STLC of 5 mg/l.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property. Placer County and the Regional Water Quality Control Board – Central Valley District noted that investigation into the contents of the mine shaft would be prudent to confirm that only vegetation is present in the shaft and that decaying material would not create a physical hazard on the property.

## 1.0 INTRODUCTION

This report presents the results of the Phase I Environmental Site Assessment (ESA) performed for Taylor Ranch (subject property). The subject property is located at 9455 Orr Creek Lane in Auburn, Placer County, California (Figure 1 - Vicinity Map). The 320.5-acre property is assigned the following Placer County assessors parcel numbers (APNs): 026-110-001-000 and 026-120-028-000. This report is intended for the use of The Trust for Public Land and The Placer Land Trust. The users of this report, The Trust for Public Land and The Placer Land Trust, may rely on the information contained herein for all purposes in connection with making a loan secured by, or investment in, the subject property. This report is valid as of the date stated on the document; the report should not be relied upon for information concerning changes in the condition of the property after the report was prepared.

### 1.1 Purpose

This Phase I ESA was conducted according to the American Society for Testing and Materials (ASTM) Designation E1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Phase I Standards). The ASTM E1527-05 standard is consistent with the requirement of the All Appropriate Inquiry (AAI) rule in Title 40 of the Code of Federal Regulations (40 C.F.R. § 312). The ASTM practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability. The purpose of this Phase I ESA was to identify recognized environmental conditions which may affect the property. Recognized environmental conditions are defined in the ASTM Phase I Standards to mean "the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product into structures on the property or into the ground, groundwater, or surface water of the property." The term recognized environmental condition is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.

Controlled substances are not included within the scope of this standard. Petroleum products are included within the scope of this practice because they are of concern with respect to many parcels of commercial real estate and current custom and usage is to include an inquiry into the present of petroleum products when doing an ESA of commercial real estate. This practice does not address requirements of any state or local laws or of any federal laws other than the appropriate inquiry provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)'s landowner liability protection. Users are cautioned that federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this practice. Users should also be aware that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the property that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for non-compliance. The scope of this practice includes research and reporting requirements that support the user's ability to qualify for landowner liability protection. As such, sufficient documentation of all sources, records, and resources utilized in conducting the inquiry required by this practice must be provided in the written report.

### 1.2 Detailed Scope of Services

This scope of services is site specific in that it relates to assessment of environmental conditions on a specific parcel of commercial real estate. The Phase I ESA will be performed by an environmental professional. An environmental professional is defined as a person meeting the education, training, and experience requirements set forth in 40 CFR § 312.10(b). We

declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined in 40 CFR § 312.10(b). The scope of services for this Phase I ESA is as follows:

Government Records Review: Standard environmental record sources, including Federal, Tribal, and State lists as well as local sources of environmental records were reviewed. We authorized Environmental Data Resources (EDR), to conduct a search of specified government databases and produce a map-based radius search report which would identify sites within the approximate minimum distances pursuant to the ASTM E1527-05 Standard. A current USGS 7.5 Minute Topographic Map showing the area on which the property is located was reviewed.

Review of Historical Sources
Historical records that may have been reviewed include, but are not limited to, aerial photographs, fire insurance (Sanborn®) maps, building department records, chain-of-title documents, city directory abstracts, land use records, and USGS Topographic Maps. The AAI rule requires that historical documents be reviewed as far back in time as the property contained structures or the property was used for agricultural, residential, commercial, industrial, or governmental purposes. Under the AAI rule, historical sources of information must be reviewed as far back as 1960. The AAI rule does not specify a research interval for reviewing historical records.

Site Reconnaissance: A Site Reconnaissance was conducted by Youngdahl Consulting Group, Inc. on 9 March 2007. During our visit to the property, we visually and physically observed the property and any structure(s) located on the property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The AAI rule requires that a visual inspection of adjoining properties be performed from the subject property line, public rights-of-way, or another vantage point. The periphery of the property was also observed, as well as the periphery of all structures on the property, and the property was viewed from all adjacent public thoroughfares. Current and past uses of adjoining properties and properties in the surrounding area were also identified if they were likely to indicate recognized environmental conditions in connection with the adjoining properties or the property. The topographic conditions of the property were also noted to the extent visually and/or physically observed to evaluate whether hazardous substances or petroleum products are likely to migrate to the property, or within or from the property, into groundwater or soil.

Interviews: Prior to the site visit, the Client was asked to identify a person with good knowledge of the property (the key site manager). Phase I ESA Questionnaires completed by the Owner's representative to facilitate the collection of information are provided in Appendix A. The AAI rule requires interviews be conducted with the current owner(s) and occupant(s) of the subject property. The AAI rule also requires that additional interviews be conducted with current and past facility manager, past owners, operators or occupants of the property, and past employees, as necessary to meet the objectives of the AAI rule. The AAI rule allows the environmental professional to determine whether such interviews are necessary.

Identify Data Gaps: If data failure is encountered, the report shall document the failure and, if any of the standard historical sources were excluded, the environmental professional will give the reasons for their exclusion. If data failure represents a significant data gap, the report shall comment on the impact of the data gap on the ability of the environmental professional to identify recognized environmental conditions.
If the data gaps are found, the Environmental professional can and does not warrant nor

guarantee that no significant events, releases, or conditions arose during the periods of such data gaps.

Evaluation and Report Preparation: The findings, opinions, and conclusions in the Phase I ESA report are supported by documentation. The report: (1) describes all services performed; (2) has a findings section which summarized known or suspect environmental conditions associated with the property, and which may include recognized environmental conditions, historical recognized environmental conditions, and de minimis conditions; (3) includes Youngdahl Consulting Group Inc.'s opinion(s) of the impact on the property of the known or suspect environmental conditions identified in the findings section as well as the logic and reasoning used in evaluating information collected during the course of the investigation; and (4) includes a conclusions and recommendations section that summarizes the recognized environmental conditions connected with the property and presents recommendations to address those conditions. The report will include an analysis of the relationship of the purchase price of the subject property to the fair market value of the property, if it were not contaminated.
Report Shelf Life: Under the AAI rule, a prospective property owner may use a Phase I ESA Report without having to update any information collected as part of the inquiry: (1) if the all appropriate inquiries investigation was completed less than 180 days prior to the date of acquisition of the property or (2) if the Phase I ESA report was prepared as part of a previous all appropriate inquiries investigation and was completed less than 180 days prior to the date of acquisition of the property. A prospective property owner may use a previously conducted Phase I ESA Report: (1) if the Phase I ESA report was prepared as part of a previous all appropriate inquiries investigation for the same property; and (2) if the information was collected or updated within one year prior to the date of acquisition of the property; and (3) certain aspects of the previously conducted report are conducted or updated within 180 days prior to the date of acquisition of the property. These aspects include the interviews, on-site visual inspection, the historical records review, and the search for environmental liens.

### 1.3 Significant Assumptions

This report and review of the subject property is limited in scope. All appropriate inquiry does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained or the time required to gather it outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of the ASTM 1527-05 practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. The appropriate level of inquiry will be guided by the type of property subject to assessment, the expertise and risk tolerance of the user, and the information developed in the course of the inquiry.

This type of investigation is undertaken with the risk that the presence, full nature, and extent of contamination would not be revealed by visual observation and review of available data alone. The findings presented in this report were based on field observations and review of available data. Therefore, the data obtained is clear and accurate only to the degree implied by the sources and methods used. The information presented herewith was based on professional interpretation and on the data obtained. No other warranty, expressed or implied, is made.

### 1.4 Limitations and Exceptions

This study did not include an asbestos survey, or lead paint, or electric and magnetic field (EMF) studies and this study intentionally did not include inquiries with respect to those issues. Those issues are best addressed, where required in isolated studies, by specialty firms licensed or certified to evaluate such technically intricate issues in focused evaluations from a

quantitative viewpoint. A review of regional radon values was performed as part of this study. Furthermore, it was not the intent of this report to address issues more appropriate to an Environmental Impact Report such as project feasibility, ecological concerns (such as wetlands delineations), or aesthetic concerns. No analysis of potential flood hazards, slope stability, or other geologic hazards was conducted.

### 1.5 Special Terms and Conditions and/or Additional Services

A Phase I ESA meeting or exceeding the ASTM 1527-05 practice and completed less than 180 days prior to the date of acquisition (the date on which a person acquires title to the subject property) or the date of the intended transaction is presumed to be valid. If within this period the assessment will be used by a different user than the user for whom the assessment was originally prepared, the subsequent user must also satisfy the User's Responsibilities set forth in Section 1.6. Users and environmental professionals may use information in prior environmental site assessments provided such information was generated as a result of procedures that meet or exceed the requirements of ASTM 1527-05.

### 1.6 User Responsibilities

The user should provide reasonably ascertainable land title records and judicial records for review for the existence of environmental liens or activity and use limitations (AUL), if any, that are currently recorded against the property. AULs are an explicit recognition by a federal, tribal, state, or local regulatory agency that residual levels of hazardous substances or petroleum products may be present on a property, and that unrestricted use of the property may not be acceptable.

If the user is aware of any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property, it is the user's responsibility to communicate any information based on such specialized knowledge or experience in the environmental professional, and before the site reconnaissance is conducted. In a transaction involving the purchase of a parcel of commercial real estate, the user shall consider the relationship of the purchase price of the property to the fair market value of the property if the property was not affected by hazardous substances or petroleum products. The user should try to identify an explanation for a lower price which does not reasonably reflect fair market value if the property were not contaminated, and make a written record of such explanation. If the user is aware of any commonly known or reasonable ascertainable information within the local community about the property that is material to recognized environmental conditions in connection with the property, it is the user's responsibility to communicate such information to the environmental professional before the site reconnaissance is conducted.

## 2.0 PROPERTY DESCRIPTION

The property description referred to herein is based on parcel maps and on a site reconnaissance performed by Youngdahl Consulting Group, Inc. The subject property is assigned the following Placer County Assessors Parcel Numbers (APNs): 026-110-001-000 and 026-120-028-000. Taylor Ranch is situated in Section 13, Township 13 North, Range 7 East of the Mount Diablo Base and Meridian. The subject property is a 320.5-acre rectangular property in the Coon Creek watershed. The property slopes upward gradually from south to north. Nevada Irrigation District (NID) flows as Coon Creek across the southern portion of the property. There is a narrow one-lane gravel county road that provides access to the property from Bell Road (approximately 0.4 miles to the east). There is a lode gold mine shaft, a waste rock pile, two small mining cabins and a day cabin on parcel 026-120-028-000. There is a small NID concrete diversion dam at the junction of Coon Creek and Camp Far West Canal at the southwestern portion of parcel 026-120-028-000. The subject property is surrounded by agricultural land, oak woodland, and rural residential property on all four sides. Zoning for both parcels is Farm 40-acre minimum. The subject property is located in an area designated as

Zone X on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (1998). Zone X is defined as an area outside of a 100-year flood plain.

## 3.0 USER PROVIDED INFORMATION

### 3.1 Title Records

Mr. Robin Park with The Trust for Public Land (TPL) provided a preliminary title report produced by Chicago Title Company. The Preliminary Report is dated 13 June 2006. Exhibit "A" provides a legal description of the properties. An easement identified in the Preliminary Report is that recorded to South Yuba Company for a diversion dam in the southwesterly portion of parcel 026-120-028-000 (1907). Right to the public may exist or arise over said land for Camp Far West Canal, Coon Creek, and existing road. An easement agreement exists between Curt V. Wurst, et ux and Susan L. Taylor, et al, recorded July 27, 2001. A copy of the Preliminary Report is provided in Appendix A.

### 3.2 Environmental Liens or Activity and Use Limitations

The user, Mr. Robin Park with TPL, did not identify any environmental liens, activity or use limitations. The Preliminary Reports provided by Chicago Title Company (see Section 3.1) did identify that a Land Conservation Contract, executed by County of Placer and John M. Taylor and Elizabeth T. Taylor, was recorded in 1971.

The EDR Environmental LienSearch Report was received on 21 March 2007. The EDR Environmental LienSearch report includes results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls. The search for parcel information for the Taylor Ranch APNs 026-110-001-000-000 and 026-120-028-000 identified the title is vested in: John Charles Taylor; John Charles Taylor, Martha Elizabeth Taylor Lachtreck and Matthew Everest Taylor; and Susan L. Taylor, Trustee of the Susan L. Taylor Revocable Trust. No environmental liens were found by EDR. Other activity and use limitations (AULs) found included a Land Conservation Agreement recorded February 28, 1968 as Document Number 1968-3290. Notice of Revision recorded January 17, 1978 as Document Number 1978-2120 (Attachment E of the EDR LienSearch Report). A copy of the EDR Environmental LienSearch Report is provided in Appendix B.

### 3.3 Specialized Knowledge and Commonly Known or Reasonably Ascertainable Information

The user, Mr. Robin Park with TPL, did not identify any environmental lien or activity or use limitation encumbering the property or in connection with the property.

### 3.4 Valuation Reduction for Environmental Issues

According to Mr. Robin Park with TPL, this transaction does not involve the purchase of a parcel with a purchase price below fair market value. A professional appraisal was made and accepted.

### 3.5 Reasons for Performing the Phase I

The user, Mr. Robin Park with TPL, requested the completion of the Phase I ESA per ASTM E1527-05 to facilitate the acquisition of the subject property from the John M. Taylor Credit Trust to The Trust for Public Land.

## 4.0 INTERVIEWS

Copies of the Phase I ESA Questionnaire and Project Contact Reports documenting the interviews conducted for this Phase I ESA are presented in Appendix A.

**4.1 Interviews with Past and Present Owners, Key Site Manager, and or Occupants**

The owner, Mr. John Taylor, was interviewed by telephone on 8 March 2007 and during the 9 March 2007 site visit. Mr. Taylor stated that his grandfather, Mr. Jack Taylor, purchased the property in the late 1940s or early 1950s as ranch land. The mine shaft, mining cabins, and miner, were already present on the subject property. Mr. Taylor stated that the miner was permitted to remain on the property and Mr. Jack Taylor had little interaction with him over the years. According to Mr. Taylor, the miner died in 1980. Historically, the subject property was used for seasonal grazing purposes and for recreational purposes. A day cabin is located north of Coon Creek in the southeastern portion of parcel 026-120-028-000. The cabin is of wood construction with a stone fireplace. The day cabin has no improvements. According to Mr. Taylor, there are no wells or septic systems on the subject property.

Mr. Curt Wurst, cattle ranches the subject property and lives adjacent to the east of the subject property at 9455 Orr Creek Lane. Mr. Wurst was contacted by telephone and interviewed on 26 March 2007. Mr. Wurst stated that mining operations were conducted by a single individual, Miner Paul, who lived and prospected on the subject property from the late 1930s until 1968. Miner Paul lived on the property until he died in 1968. During that time, his only source of income was the gold he extracted from the mine. According to Mr. Wurst, the mine was hand dug by Miner Paul to a depth of 60 feet below ground surface. Mr. Wurst stated that there are also 200 feet of horizontal tunnels branching off of the main shaft. It is unknown if Miner Paul used mercury in his extraction process. After Miner Paul died, Mr. Jack Taylor used the mine as a burn dump and deposited vegetation debris into the mine for annual burning until 1993. This practice was continued by Mr. Wurst until approximately 2000. Mr. Wurst stated that to his knowledge, only green waste was burned in the mine shaft. Mr. Wurst also stated that the irrigation pipe and the drum in the mining building are his property and he stores them on the subject property. According to Mr. Wurst, Miner Paul also used dynamite, a diesel engine, and a mule to work the mine. Miner Paul reportedly also prospected on the adjacent property to the east and connecting tunnels between the two mines may exist.

**4.2 Interviews with State and/or Local Government Officials**

The Placer County Solid Waste Management Department was contacted for information regarding the subject property. Mr. Dave Altman stated that their main concern is securing the mine shaft to prevent accidental falls into the mine. Mr. Altman noted that if the shaft hold organic material, shifting may occur as the material decays. Mr. Altman recommended that the Regional Water Quality Control Board – Central Valley Region (RWQCB-CVR) be contacted to discuss the potential for acid mine drainage at the property.

Mr. John Moody with RWQCB-CVR was contacted regarding the existence of waste rock at the property. Mr. Moody concurred that there is a potential for acid mine drainage at an abandoned mine site and that sampling would be beneficial in characterization of the waste rock pile. Mr. Moody stated that the following key factors about the Taylor Ranch mine indicate that it is less likely to be high risk mine site: only waste rock is present, no processed material (mill tailings) were identified on the site, the mine is not directly adjacent to a creek or drainage, no visual indications of acidic runoff or leachate were observed, the quantity of waste rock is small. Mr. Moody also noted that the stability of the material in the shaft should be evaluated.

Warren Hart with the Nevada Irrigation District (NID) was interviewed by telephone on 20 March 2007 regarding the diversion dam on Coon Creek on the subject property. According to Mr. Hart, the Camp Far West system was started by PG&E in the early 1900s. NID took control of the system in 1926. NID had done periodic improvements to the canal system since 1926. NID does not store equipment or materials on the subject property. NID has no knowledge of any dumping occurring on the subject property. Mr. Hart had no knowledge of any mining activity on the subject property.

### 4.3 Interview with the User

The user, Mr. Robin Park with TPL, had no knowledge of the history of the subject property.

## 5.0 RECORDS REVIEW

The records review consisted of a review of reasonable ascertainable environmental record sources, physical setting sources, and historical use information that will help identify recognized environmental conditions in connection with the property. Reasonably ascertainable record information must be publicly available, obtainable from its source within reasonable time and cost constraints, and be practically reviewable.

### 5. 1 Standard Environmental Record Sources

A commercial database search of Federal, Tribal, State, and Local regulatory lists were conducted in order to assess whether documented environmental conditions exist on or near the property. In an effort to fulfill due diligence requirements, Youngdahl Consulting Group, Inc. employed the services of Environmental Data Resources, Inc. (EDR) to identify sites listed on regulatory agency databases within approximate minimum search distances from the subject property with potential of existing environmental problems. The term approximate minimum search distances means the distances within the area which government records must be reviewed pursuant to ASTM Phase I Standards. The term minimum search distance is used in lieu of radius as to include irregularly shaped properties.

The EDR Radius Map with GeoCheck® (EDR Reports) for Taylor Ranch received on 9 March 2007 and reviewed. Copies of the EDR Reports are presented as Appendix C. Included in the reports are the dates the original government sources were updated and the dates the sources were last updated by EDR, as well as a list of acronyms used by EDR and descriptions of the various lists searched.

The subject property was not identified in the EDR Report. There is one surrounding site listed within the minimum search distances in the EDR Report, James Weddle (5150 Bell Road) on the CA MS list. The facility status is listed as closed. Due to poor or inadequate information, EDR is unable to map certain sites. These sites are referred to by EDR as Orphans. None of the sites listed in the "Orphans List" of the EDR Report are within the minimum search distances from the subject property.

### 5.3 Physical Setting Sources

Geologic maps and current U.S.G.S. 7.5 Minute Topographic Maps of the Gold Hill, California quadrangle, as well as observations made during our site reconnaissance were used to make interpretations regarding the physical setting of the subject property and the surrounding area. Taylor Ranch is located within the western foothills of the Sierra Nevada and lies at elevations ranging from 1020 to 1425 feet above mean sea level. The topography of the subject property is sloping towards Coon Creek, which flows through the southern portion of parcel 026-120-028-000 in a southwesterly direction.

#### 5.3.1 Regional Geology

The subject property is located in the foothills of the Sierra Nevada geomorphic province of California. Mountain building occurred during the Mesozoic era as oceanic plate was subducted underneath the continental plate margin. As the Sierra Nevada consequently uplifted, the range experienced related volcanism and rising granitic plutons. Regional erosion of the rising mountains deposited materials into the deep marine basin of the Great Valley during the same period. The northwest trending, east and west branches of the Bear Mountain Fault Zone and the Foothills-Melones Fault Zone are the major fault lineaments of the province, which were initially generated by either collision or subduction along the active Mesozoic plate margin.

According to the Mineral Land Classification of the Auburn 15' Quadrangle (Kohler, 1984), the subject property is predominantly underlain by Paleozoic age metavolcanic rocks associated with the Smartville ophiolite, and larger Foothill Melange-Ophiolite Terrane. These rocks have been deformed, fractured, intruded, and metamorphosed. Surficial soil materials are derived mainly from the weathering of the underlying bedrock and consist of sands, silts, and clays. A lode gold mine (161) is identified on the subject property, north of Coon Creek. A name is not provided and the commodity is believed to be gold (Au-?).

According to the Fault Activity Map of California and Adjacent Areas (Jennings, 1994), and the Map Index to Alquist-Priolo (Earthquake Hazard) Zones (Hart, 1995), no active faults are located on or adjacent to the project site. Local Foothills Fault System faults in proximity to the site include the Wolf Creek Fault Zone located roughly 2 miles to the east, and two branches of the Deadman Fault, one located ¼ mile to the east and the other roughly one mile to the southwest. The Foothills Fault System is generally classified as "potentially active" (as defined by Hart, 1995) with displacement recorded as during the Quaternary Period (< 1.6 million years before present). However, the historic Cleveland Hill Fault located roughly 13 miles northwest of the site is within the Foothills Fault Zone. The Cleveland Hill Fault is believed to be the source of the 1975 magnitude 5.7 Oroville earthquake (Schwartz, et al, 1996) and appears to be the closest "active" fault (movement within 10,000 years before present) to the subject site. The closest mapped fault to the site is the eastern branch of the Deadman Fault which appears to be within ¼ mile of the east property boundary. According to the report, "Relative Likelihood For the Presence of Naturally Occurring Asbestos in Placer County, California", the subject property is in an area moderately likely to contain Naturally Occurring Asbestos (NOA); (Higgins and Clinkenbeard, 2006). Depth to first groundwater is estimated to be approximately 6 to 10 feet below ground surface in the vicinity of the subject property.

According to the USDA Soil Conservation Service Soil Survey of Placer County, California Western Part (1980) notes the subject property to consist of one soil type, Auburn-Rock outcrop complex, 2 to 30 percent slopes (117). This unit is about 60 percent Auburn soil and 15 percent metamorphic Rock outcrop. The Auburn soil is shallow and well drained. It formed in residuum from vertically tilted metabasic bedrock. Permeability is moderate, surface runoff is medium or rapid, and the erosion hazard is slight to high. This type of soil is used for annual range, irrigated pasture, and some areas are urbanized. The soil survey indicates the presence of a mine shaft on the subject property, in the southeast portion, north of Coon Creek.

### 5.3.2 Regional Radon Values

According to Geologic Controls on the Distribution of Radon in California by Ronald Churchill for the Department of Health Services (1991, revised 2003), elevated radon gas levels in indoor air are a result of radon moving into buildings from the soil, either by diffusion or flow due to air pressure differences. The ultimate source of radon gas in buildings is the uranium naturally present in rock, water, and soil. Some rock types are known to contain more uranium than others. In California, most uranium deposits are relatively small in aerial extent and are located in rural areas. Consequently, the chance of severe radon levels (>200 pCi/L) occurring in buildings in California should be very low. The following rock units contain uranium in concentrations above the crustal average: the Monterey Formation, asphaltic rocks, marine phosphatic rocks, granitic rocks, felsic volcanic rocks, and certain metamorphic rocks. According to EPA publication 402-R-93-025, entitled EPA's Map of Radon Zones, California, dated September 1993, Placer County is shown to be in Zone 2. Zone 2 has a predicted average radon screening level of between greater than 2 Pico Curies per Liter (pCi/l) to less than 4 pCi/l. This is considered to be a moderate value of geologic radon potential. The State of California Department of Health Services California Statewide Radon Survey Screening Results (May 1990) indicated that Placer County (Region 5) had a value of 3.7% as the percent of homes with predicted radon levels of over 4 pCi/l.

**5.4 Historical Use Information on the Property and Adjoining Properties**

All obvious uses of the property shall be identified from the present, back to the property's first developed use, or back to 1940, whichever is earlier. The term developed use includes agricultural uses and placement of fill dirt. Standard historical sources shall be reviewed at approximately five year intervals. Uses in the area surrounding the property shall also be identified. Standard historical sources include: aerial photographs, fire insurance maps, property tax files, recorded land title records, USGS topographic maps, local street directories, building department records, and zoning/land use records. There are no Sanborn Maps that cover the subject property.

**5.4.1 Aerial Photographic Review**

EDR aerial photographs for 1952, 1962, 1984, 1993, and 1998 were reviewed. Digital images for 2006 obtained from terraserver.com were also reviewed. Interpretations were made in an effort to evaluate former uses of the subject property and adjacent areas, and to determine if any significant topographic or cultural changes have occurred. A summary of all of the aerial photographs reviewed is provided in Table 1. A copy of the EDR Aerial Photo Decade Package is provided in Appendix C following the EDR Report. The subject property appears to be oak woodland traversed by Coon Creek on all of the photographs reviewed. The NID pipeline can be seen on the subject property beginning on the 1984 photograph. Due to the scale of the aerial photographs and the dense tree canopy near Coon Creek, the mine and associated structures could not be seen on the photographs. Surrounding property consists of rural residential property to the east and south. Property to the north and west appears to be undeveloped on the photographs reviewed.

**5.4.2 Review of Historical and Current USGS Topographic Maps**

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topographic maps show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. The EDR - Historical Topographic Map Report provided maps dated 1954 and 1973. Interpretations were made in an effort to evaluate former uses of the subject property and adjacent areas, and determine if any significant topographic or cultural changes have occurred. The 1954 Auburn 15 Minute map shows the subject property to be undeveloped land with a "Shaft" and small structure located north of Coon Creek on parcel 026-120-028-000. An unimproved road traverses through the parcel in an east/west direction. Rural residential properties and Lone Star Cemetery are identified to the east. The 1954 and 1973 (revision) Gold Hill 7.5 minute maps have "Mine" instead of "Shaft" next to the small structure north of Coon Creek. In addition, a small reservoir is shown in the center of the property. A summary of the topographic maps review is provided below. A copy of the EDR - Historical Topographic Map Report is provided in Appendix B.

**5.4.3 Historical City Directory Abstract Review**

EDR provided the EDR-City Directory Abstract for review. Building directories including city, cross reference and telephone directories were reviewed, if available, as approximately five year intervals for the years spanning 1975 through 2005. The address 9455 Orr Creek Lane was not listed in the resource list between 1975 and 1985. From 1990 until 2005, a residence is identified at 9455 Orr Creek Lane. No surrounding addresses are identified on the report. A copy of the EDR-City Directory Abstract is provided in Appendix B, following the EDR Report.

**5.4.4 Review of Historical Sanborn® Maps**

There are no Sanborn Maps that cover the subject property.

## 6.0 SITE RECONNAISSANCE

A reconnaissance of the subject property and a windshield survey of the surrounding area were conducted by Youngdahl Consulting Group, Inc. on 9 March 2007. Typical views of the subject property at the time of the reconnaissance are presented as Figures 3 through 10.

The site reconnaissance consisted of visual and physical observations of the periphery of the subject property and traverses throughout the property. Taylor Ranch is located at the terminus of Orr Creek Lane in Auburn, Placer County, California. The northern 160 acres of the subject property, Parcel 026-110-001-000, is blue oak woodland used for seasonal grazing. There are no improvements on parcel 026-110-001-000. Only the southern portion of parcel 026-110-001-000 was observed during the site visit. The 160.5 acre southern portion of the property, parcel 026-120-028-000, is also predominately oak woodland used for seasonal grazing purposes. Coon Creek traverses through parcel 026-120-028-000, in a northeast to southwest direction (Figure 3).

In the southeastern portion of parcel 026-120-028-000, a mine shaft with associated structures was observed. These features are what remain of a small scale gold mining operation that occurred on parcel 026-120-028-000 from the 1930s until 1968. A small day cabin, used for recreation purposes, is also present on the property. During the site visit, the mine shaft was observed to be filled to the surface with various types of debris: wood, concrete, vegetation, miscellaneous trash (Figure 3). Hazardous materials containers, 55-gallon drums, automotive batteries or tires were not observed in the debris at the surface of the shaft. The materials contained in the subsurface portions of the mine shaft are unknown, but are reportedly predominately vegetation debris. A waste rock pile was observed immediately adjacent to the south of the mine shaft (Figure 4). The approximate quantity of waste rock is estimated to be approximately 50 cubic yards of soil and rock. A minor quantity of concrete debris was also observed at the surface of the waste rock pile. A hummocky area, possibly Placer mined, was observed to the west of the mine (Figure 4). Milling operations do not appear to have been conducted at the mine site. Dilapidated buildings (one for storage and one residential), a water tank, an outhouse, and a pile of plastic pipe were observed in the vicinity of the mine shaft (Figure 5). According to Mr. Taylor (property owner), the adjacent landowner, Mr. Curt Wurst, ranches the subject property and is responsible for depositing debris into the mine shaft. Mr. Wurst stated that predominately green waste has been deposited and subsequently burned in the mine shaft for many years. Mr. Wurst also stated that he stores the irrigation pipe and the drum in the building (Figure 6). An unpaved access road traverses the property from Orr Creek Lane to the northwest to the livestock pond (Figure 7) and down to Cook Creek and Nevada Irrigation District (NID) dam and canal. South of the pond, an area of buried debris was observed (Figure 7). Mr. Wurst had no knowledge of the origins of this buried material. The property was observed to be predominately active cattle grazing land (Figure 8).

During the site visit, a registered geologist inspected the mine area. Based on his observations, no visual indications of ground movement or surface subsidence in the vicinity of the mine shaft were noted. No air shafts or other surface indications of subsurface workings were observed, except for the mine shaft/adit itself.

Nevada Irrigation District (NID) maintains a concrete diversion dam at the junction of Coon Creek and Camp Far West Canal at the southwestern portion of parcel 026-120-028-000 (Figure 9). A recreational day cabin is located on the property, west of the mine (Figure 10). Adjacent property includes rural residential ranches to the east (Figure 10).

## 7.0 FINDINGS AND CONCLUSIONS

Taylor Ranch is located at the terminus of Orr Creek Lane, Auburn, Placer County, California. The property is assigned the following Placer County assessors parcel numbers (APN): 026-110-001-000 and 026-120-028-000. Based on our study the subject property has been used for predominately for seasonal grazing purposes. A mine shaft, a waste rock pile and associated structures is what remains of a small scale gold mining operation that occurred on parcel 026-120-028-000 from the 1930s until 1968. A small day cabin is also present on the property. Nevada Irrigation District (NID) maintains a concrete diversion dam at the junction of Coon Creek and Camp Far West Canal at the southwestern portion of parcel 026-120-028-000.

Youngdahl Consulting Group, Inc. has performed a Phase I Environmental Site Assessment in general conformance with ASTM Practice E 1527-05. A site reconnaissance of the Taylor Ranch, the subject property, identified the existence of an historic gold mining shaft and associated waste rock pile and structures. It appears that the mining operation was a one-man operation and no indications of milling activities were observed or identified by knowledgeable persons. A Limited Phase 2 Soil Investigation was conducted to evaluate the waste rock pile. This investigation is presented under separate cover. The results of the investigation indicated that arsenic is NOT present at total concentrations above the Title 22 Total Threshold Limit Concentration (TTLC) of 500 mg/kg. In addition, the waste extraction test identified the material is not soluble above the Soluble Threshold Limit Concentration of 5.0 mg/l. The waste rock has a pH of 5.61. The waste rock does not appear to present a significant potential to contribute to acid mine drainage. The waste rock does not have elevated concentrations of arsenic, per Title 22

### 7.1 Data Gaps

No significant data gaps were identified during the course of this investigation that affected the environmental professional's ability to identify recognized environmental conditions.

## 8.0 OPINION

It is the opinion of the Youngdahl Consulting Group Inc.'s environmental professional that there are no identified recognized environmental conditions on the subject property. The rationale used for this opinion was made through evaluation of the observations made during the site visit and interviews with knowledgeable persons. Placer County and the Regional Water Quality Control Board – Central Valley District noted that investigation into the contents of the mine shaft would be prudent to confirm that only vegetation is present in the shaft and that decaying material would not create a physical hazard on the property.

## 9.0 SELECTED REFERENCES

1. California Department of Conservation, Division of Mines and Geology, Fault Activity Map of California and Adjacent Areas, 1994, Geologic Data Map No. 6, compiled by Charles W. Jennings.

2. California Department of Conservation Division of Mines and Geology, Mineral Land Classification of Placer County, California, CDMG Open-File Report 95-10, 1995.

3. Churchill, Ronald, Geologic Controls on the Distribution of Radon in California for the Department of Health Services, 25 January 1991, revised December 2003.

4. Higgins, C.T. and Clinkenbeard, J.T., 2006: "Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California", California Geological Survey/CGS Special Report 190.

5. Jennings, C.W., (1994), Fault Activity Map of California and Adjacent Areas, Geologic Data Map No. 6, California Division of Mines and Geology.

6. Kohler, S. L. (1984) "Mineral Land Classification of the Auburn 15' Quadrangle, El Dorado and Placer Counties, California", CDMG Open-File Report 83-37.

7. Loyd, R.C. (1995) "Mineral Land Classification of Placer County, California", CDMG Open-File Report 95-10.

8. U.S. Department of Agriculture (USDA) Soil Conservation Service: “Soil Survey of Placer County, California Western Part”, (July 1980).

9. U.S. Geological Survey Topographic Map – Gold Hill, California Topographic Quadrangle, 7.5 minute series, 1954 (photorevised 1973).

## 10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

**Roy C. Kroll -** Certified Engineering Geologist - California No. 1328, Registered Environmental Assessor - California No. 02266
Bachelor of Science in Earth Sciences, California State University - Long Beach, 1975, Certificate - Environmental Studies, California State University - Long Beach, 1975

Mr. Kroll has been involved in the Engineering Geology aspects of numerous public works, commercial, and residential projects throughout California since 1981. Mr. Kroll's experience has also included performing numerous Phase I Environmental Site Assessments, and coordinating limited Phase II investigations by others.

**Laurie B. Israel -** Registered Environmental Assessor - California No. 05557
Bachelor of Science in Environmental Policy Analysis and Planning, University of California - Davis, 1988

Ms. Israel has worked in the environmental field since 1988. She has been involved in all aspects of Phase I Environmental Site Assessments. Ms. Israel became a Registered Environmental Assessor with the State of California in 1994. Ms. Israel has also performed limited Phase II investigations**.**

# TABLE

**TABLE 1: SUMMARY OF AERIAL PHOTOGRAPHS REVIEWED**
**TAYLOR RANCH**
**ORR CREEK LANE, AUBURN, PLACER COUNTY, CALIFORNIA**
**Project No. R04178.006**

| AERIAL PHOTOGRAPHS | | | | |
|---|---|---|---|---|
| **Date** | **Provided By** | **Scale (±)** | **Type** | **Source** |
| 1952 | EDR | 1” = 1000’ | B&W | Southwestern |
| 1962 | EDR | 1” = 1000’ | B&W | Cartwright |
| 1984 | EDR | 1” = 1000’ | B&W | WSA |
| 1993 | EDR | 1” = 1000’ | B&W | USGS |
| 1998 | EDR | 1” = 1000’ | B&W | USGS |
| 2006 | Terraserver.com | 1” = 576m | Color | AirPhoto USA |

# FIGURES

# APPENDICES

**APPENDIX A: Interview & Title Documentation**

Phase I ESA Questionnaire, Telephone Conversations Records,
Preliminary Title Report, and EDR Environmental LienSearch Report

**APPENDIX B: Historical Record Documentation**

EDR Radius Map Report with GeoCheck®
EDR Aerial Photo Decade Package
EDR Historical Topographic Map Report
EDR City-Directory Abstract
EDR Sanborn® Map Report - No coverage

## Appendix C: Laboratory Analysis – Excelchem Environmental Labs

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811