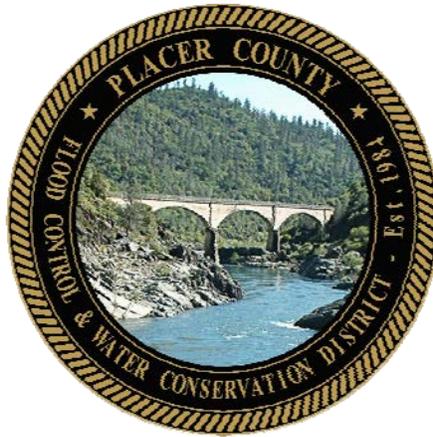


Draft Initial Study / Mitigated Negative Declaration

Antelope Creek Flood Control Project

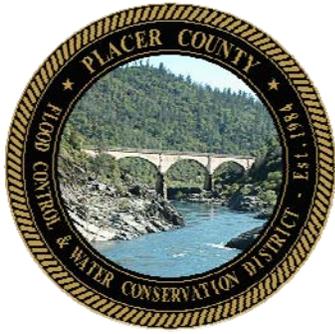


Placer County Flood Control and Water Conservation District

November 2013



2365 Iron Point Road, Suite 300
Folsom, CA 95630



Date: November 22, 2013
To: Interested Parties
From: Placer County Flood Control and Water Conservation District
Subject: Notice of Intent to Adopt a Mitigated Negative Declaration for the Antelope Creek Flood Control Project

The Placer County Flood Control and Water Conservation District (District) has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental effects of the Antelope Creek Flood Control Project. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The project proposes to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements.

The District has prepared a Draft IS/MND in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The Draft IS/MND identifies potentially significant impacts related to: biological resources and cultural resources. All impacts are reduced to less-than-significant levels with implementation of recommended mitigation measures.

The Draft IS/MND is being circulated for public review and comment for a 30-day period beginning on Friday, November 22, 2013 and ending on Sunday, December 22, 2013. The Draft IS/MND may be reviewed at the District's website:

<http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek>

Please send written comments on the Draft IS/MND to Brian Keating, P.E., District Manager, Placer County Flood Control and Water Conservation District, 3091 County Center Drive, Suite 220, Auburn, CA 95603; Fax (530) 745-3531. Comments may also be sent via e-mail to: BKeating@placer.ca.gov. For e-mailed comments, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

Sincerely,

Brian Keating, P.E.
Placer County Flood Control and Water Conservation District

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MITIGATED NEGATIVE DECLARATION

PROJECT: Antelope Creek Flood Control Project

LEAD AGENCY: Placer County Flood Control and Water Conservation District

PROJECT DESCRIPTION: The Placer County Flood Control and Water Conservation District (District) is proposing to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements on a segment of Antelope Creek. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The District is the lead agency under the California Environmental Quality Act (CEQA).

The Draft Initial Study/ Mitigated Negative Declaration (Draft IS/MND) was submitted to the State Clearinghouse on November 22, 2013 for a 30 day public review period. During the public review period the Draft IS/MND was made available for review on the District's Web site, <http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek.com>.

FINDINGS: An initial study (IS) has been prepared to assess the proposed project's potential effects on the environment and the significance of those effects. Using the results of the IS, the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following proposed findings:

- ▶ The project would result in no impacts to agriculture and forestry resources, land use/ planning, mineral resources, population and housing, public services, and utilities and service systems.
- ▶ The project would result in less-than-significant impacts to aesthetics, air quality, geology/ soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/ water quality, noise, recreation, and transportation/ traffic.
- ▶ Although there are currently no nesting raptors that might be disturbed at the project site, mitigation is included to address the potential for raptors to nest at or near the project site prior to construction of the project.
- ▶ Although there are no known cultural resources that might be disturbed, mitigation is included to address the potential for discovering archaeological and/or human remains during the construction phase of the project.
- ▶ The project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.
- ▶ The project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- ▶ The project would not have environmental effects that are individually limited but cumulatively considerable.

- ▶ The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.
- ▶ No substantial evidence exists that the project would have a significant negative or adverse effect on the environment.
- ▶ The project incorporates all applicable mitigation measures, as listed below and described in the IS.

The following mitigation measures shall be implemented as part of the project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potential environmental impacts of the proposed project to a less-than-significant level.

Mitigation Measure 1 - Implementation of Avoidance and Minimization Measures for Elderberry Shrubs

Mitigation Measure 2 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Fish Species

Mitigation Measure 3 - Pre-construction Surveys for Swainson's Hawk and Establishment of Buffers, if Necessary

Mitigation Measure 4 - Pre-construction Surveys for Special-Status Bird Species and MBTA-Covered Migratory Birds

Mitigation Measure 5 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Species and Sensitive Habitats

Mitigation Measure 6 - Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Burrowing Owl

Mitigation Measure 7 - Implementation of City of Roseville Tree Preservation Ordinance

Mitigation Measure 8 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to State Sensitive Species Western Pond Turtle and Western Spadefoot

Mitigation Measure 9 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

Mitigation Measure 10 - Protection of Prehistoric or Historic Subsurface Cultural Resources

Mitigation Measure 11 - Protection of Human Remains

A copy of the IS follows this MND.

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQCR	Air Quality Control Region
BMP	Best Management Practices
BP	before present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CHSC	California Health and Safety Code
CO	carbon monoxide
District	Placer County Flood Control and Water Conservation District
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
GHG	greenhouse gas
IS	Initial Study
I80	Interstate 80
LOS	Level of Service
m	Meter
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MRZ	mineral resource zone
NAAQS	National Ambient Air Quality Standards
NCIC	North Central Information Center
NMFS	National Marine Fisheries Service
NNAG	non-native annual grassland
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides

ACRONYMS AND ABBREVIATIONS

NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
Pb	lead
PCAPCD	Placer County Air Pollution Control District
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
RWQCB	Regional Water Quality Control Board
SMARA	California Surface Mining and Reclamation Act
SO _x	sulfur oxides
SR	State Route
SRA	shaded riverine aquatic
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
UAIC	United Auburn Indian Community
UPRR	Union Pacific Railroad
US	United States
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VELB	Valley elderberry longhorn beetle
VOC	volatile organic compounds

1 INTRODUCTION

The Placer County Flood Control and Water Conservation District (District) has prepared this Initial Study/ Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the environmental consequences of the proposed Antelope Creek Flood Control Project (proposed project) in the City of Roseville, Placer County, California. The District is the lead agency under CEQA.

The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The project proposes to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements.

1.1 PURPOSE OF THE INITIAL STUDY

This document is an IS/MND prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The purpose of this IS/MND is to: (1) determine whether project implementation would result in potentially significant or significant effects on the environment; and, (2) incorporate mitigation measures into the project design, as necessary, to eliminate the project's potentially significant or significant project effects or reduce them to a less than-significant level. An IS/MND presents the environmental analysis and substantial evidence supporting its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts.

CEQA requires that all state and local government agencies consider the environmental consequences of projects they propose to implement, or over which they have discretionary authority, before implementing or approving those projects. As specified in Section 15367 of the CEQA Guidelines, the public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance. The District has principal responsibility for carrying out the proposed project and is therefore the CEQA lead agency for this IS/MND.

As specified in Section 15064(a) of the CEQA Guidelines, if there is substantial evidence (such as the results of an IS) that a project, either individually or cumulatively, may have a significant effect on the environment, the lead agency must prepare an EIR. The lead agency may instead prepare a Negative Declaration if it determines there is no substantial evidence that the project may cause a significant impact on the environment. The lead agency may prepare an MND if, in the course of the IS analysis, it is recognized that the project may have a significant impact on the environment but that implementing specific mitigation measures would reduce any such impacts to a less-than-significant level (CEQA Guidelines, Section 15064[f]).

The District has prepared this IS to evaluate the potential environmental effects of the proposed project and has incorporated mitigation measures to reduce or eliminate any potentially significant project-related impacts. Therefore, an MND has been prepared for this project.

1.2 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the proposed project. Based on the issues evaluated in that chapter, it was determined that the proposed project would have no impact related to the following resource areas:

- Agriculture and Forestry Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Utilities and Service Systems

The proposed project would result in less-than-significant impacts on the following resource areas:

- Aesthetics
- Air Quality
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Recreation
- Transportation/Traffic

The proposed project would result in potentially significant impacts that would be reduced to below a level of significance with the proposed mitigation on the following resource areas:

- Biological Resources
- Cultural Resources

Thus, with the incorporation of mitigation measures as described in this IS/MND, the project would not have a significant effect on the environment.

1.3 DOCUMENT ORGANIZATION

This document is divided into the following sections:

Notice of Intent to Adopt an IS/MND. The Notice of Availability and Intent to Adopt an IS/MND provides notice to responsible and trustee agencies, interested parties, and organizations of the availability of this IS, as well as the District's intent to adopt an IS/MND for the proposed project.

MND. The MND, which precedes the IS analysis, summarizes the environmental conclusions and identifies mitigation measures that would be implemented in conjunction with the proposed project.

Chapter 1, "Introduction." This chapter provides a brief summary of the proposed project and describes the purpose of the IS/MND, provides a summary of findings, and describes the organization of this document.

Chapter 2, "Project Description." This chapter describes the project objectives for the proposed project, provides a general background, and outlines proposed project elements.

Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures." This chapter presents an analysis of environmental issues identified in the CEQA environmental checklist (CEQA Guidelines, Appendix G), and determines whether project implementation would result in no impact, a less-than-significant impact, a potentially significant impact unless mitigation incorporated, or a potentially significant impact on the environment in each of the issue areas. If any impacts had been determined to be potentially significant, an EIR would have been required. For this project, however, mitigation measures have been incorporated where needed, to reduce all potentially significant impacts to a less-than-significant level.

Chapter 4, "List of Preparers." This chapter identifies report preparers.

Chapter 5, "References Cited." This chapter lists the references used in preparation of this IS/MND.

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2 PROJECT DESCRIPTION

2.1 PROJECT SETTING AND LOCATION

2.1.1 Project Location

The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. Antelope Creek Drive crosses the project study area at grade and Roseville Parkway crosses over the project study area. The Creekside Business and Shopping Centers are west and up gradient of the project study area and a Union Pacific Railroad (UPRR) line and Interstate 80 (I-80) are east of the project area. A City of Roseville landfill, which is no longer in operation and has been officially closed, is located adjacent to the project study area. The Antelope Creek Class 1 Bike Path and Recreational trail runs along the creek through the length of the project study area. Figure 2-1 shows the project location and vicinity.

2.2 BACKGROUND AND NEED FOR THE PROPOSED PROJECT

The Dry Creek watershed covers an area of 101.4 square miles in Placer and Sacramento Counties. The majority of the watershed (82 percent) is contained within the limits of Placer County. The headwaters of Dry Creek are located as follows: in the upper portions of the Loomis Basin; in the vicinity of Penryn and Newcastle; in unincorporated Placer County; in the Granite Bay area near Folsom Lake; and in Orangevale in Sacramento County. Antelope Creek and Clover Valley Creek form the northwest boundary of the watershed, and Secret Ravine and Miners Ravine comprise the northeast portion of the watershed. Antelope Creek and Miners Ravine, downstream from their confluences with Clover Valley Creek and Secret Ravine, respectively, merge near I-80 and Atlantic Street in Roseville to form Dry Creek. Dry Creek then flows west-southwest through Sacramento County where it empties into the Natomas East Main Drainage Canal, which flows into the American River.

The 2011 Updated Dry Creek Watershed Flood Control Plan (Plan) identifies a series of projects that would help manage flows within the Dry Creek Watershed area of the American River Basin. The primary purpose of the 2011 Updated Plan is to evaluate the hydrology of the watershed and provide recommendations that are both feasible and effective in reducing future flood damages and identifying ways to minimize impacts to development as a result of changed flood conditions. Of the recommended projects in the Plan, the Antelope Creek Flood Control Project near Atlantic Street would provide the greatest reduction in peak flows at Vernon Street in Roseville. As defined in the Plan, the Antelope Creek Flood Control Project near Atlantic Street (proposed project or project) includes a regional flood control project on Antelope Creek upstream of Atlantic Street and downstream of the SR 65 crossing. Antelope Creek is a perennial creek and major tributary of Dry Creek that drains the northeast portion of the Dry Creek Watershed.

As proposed in the Plan, the project would involve the design and construction of two on-channel weirs along an existing open space-protected reach of the creek. The project would meet multiple planning objectives by: improving flood protection and reducing potential for flood damages in previously impacted areas of downtown Roseville and unincorporated areas of Placer County; improving water quality downstream of the project area; enhancing the existing riparian corridor and habitats; and, improving an existing public recreation corridor.

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Figure 2-1 Project Location and Vicinity



More specifically, the proposed project would:

- Reduce peak flood flows over a wide range of flood events,
- Enrich existing aquatic and riparian corridor ecosystems through habitat restoration,
- Potentially improve water quality through groundwater recharge and natural treatment of temporarily stored flood waters within the floodplain, and
- Enhance recreational opportunities within the floodplain of Antelope Creek, including the Antelope Creek Class 1 Bike Path and Recreational trail.

2.3 PROPOSED PROJECT

2.3.1 Project Objectives

The primary objective of the project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Secondary objectives of the project include:

- Improving access at two existing recreational trailheads with new parking options, and
- Restoring aquatic and riparian habitat along Antelope Creek. Key goals for the restoration components include:
 - Restoring sections of the creek channel and improving floodplain connectivity;
 - Improving habitat values;
 - Avoiding or minimizing impacts to large trees and sensitive environmental areas;
 - Removing invasive and non-native plant species; and,
 - Ensuring the stream channel remains naturally stable and fish passage is maintained and enhanced.

The recreational and restoration components of the project would provide “beneficial impacts” in the project area and to the environment in general.

2.3.2 Project Overview

The project includes two primary flood control elements along with recreational and aquatic and riparian habitat restoration elements. An overview of these project elements is provided below.

Flood Control: The proposed flood control elements would be constructed in two phases and include two weir structures. Phase 1 (Lower Weir) would be constructed upstream from the UPRR crossing just north of Atlantic Street. Phase 2 (Upper Weir) would be constructed where the multi-purpose recreation trail crosses Antelope Creek, just downstream of the East Roseville Parkway Overcrossing. Figure 2-2 shows the project study area and the project impact areas, including the Phase 1 and Phase 2 weir locations.

Both weirs would include culvert outlet design options that provide a natural streambed bottom. At the Phase 2 (Upper Weir) location, the project would provide a significant benefit to fish by removing existing fish passage barriers to enhance fish passage and allow fish to pass during low flows. Both weirs would be designed to pass low flows without restriction, preserve available storage for peak flood conditions, restrict discharge during the peak of a storm, increase upstream 100-year flood levels by less than five feet, and to overtop at 100-year flood conditions. The proposed weir would also detain flood flows for a short duration to delay the local peak discharge by approximately an hour. Designing the

weirs to detain flood flows for even a short duration would significantly reduce the contribution of Antelope Creek discharges to the downstream peak flows on Dry Creek at Vernon Street in Roseville by as much as 800 cubic feet per second (cfs).

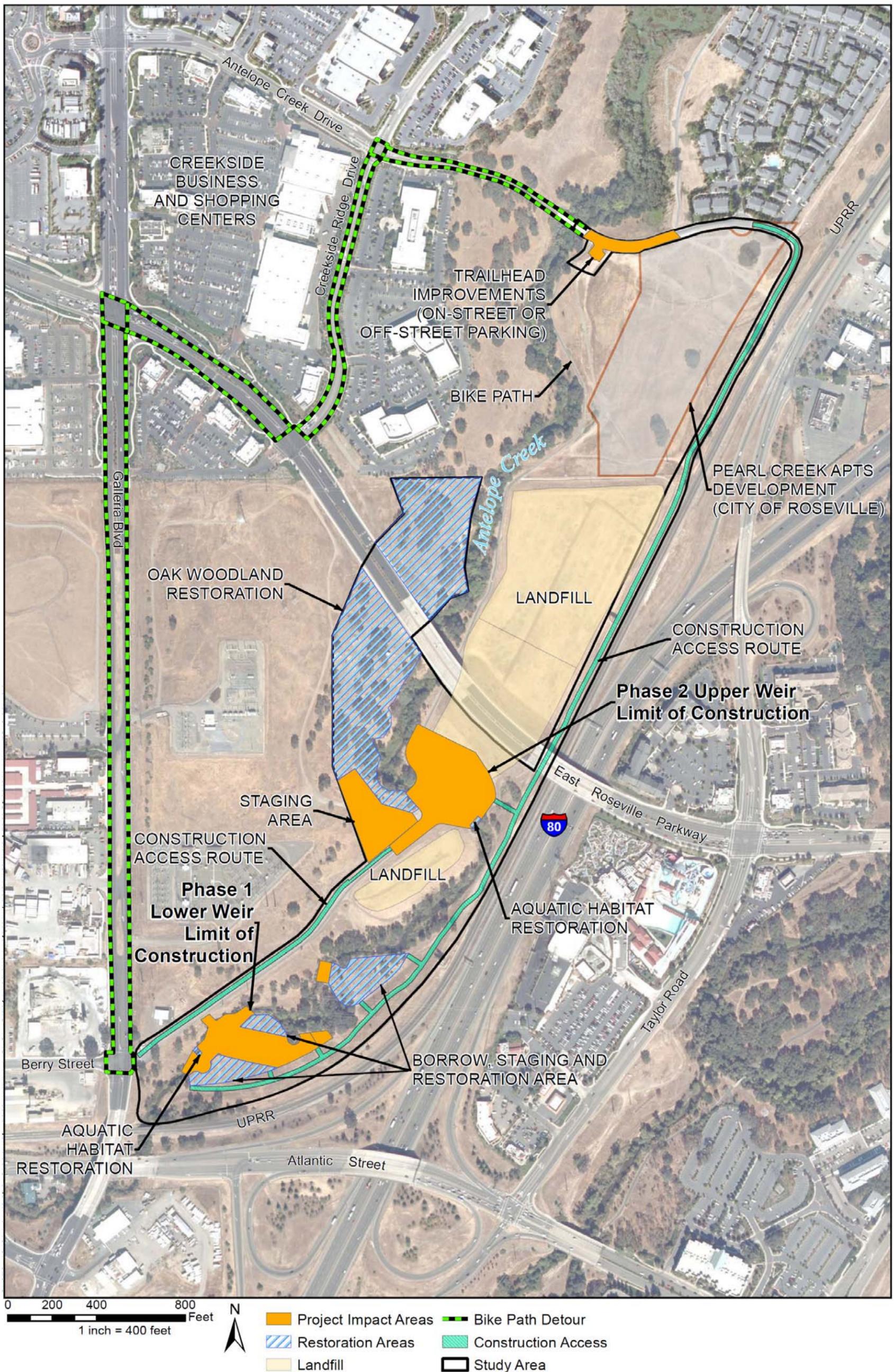
The proposed project configuration would cause 100-year water surface elevations to increase upstream from the weirs; this rise in water surface could reduce the area available for development on some private properties. However, the weir designs would limit this vertical increase in the 100-year base flood elevations to a maximum of less than five feet in the immediate upstream vicinity of both weirs. To minimize the effect of the rise in water surface elevation on these minimal areas, the District could either obtain flood easements from property owners to offset the effects of water being temporarily detained on these properties during flood events or place fill in a manner so as to maintain the land area available for development. The District is working with the property owners of the potentially affected properties to determine the most appropriate way to remedy impacts from this change in water surface elevation. In addition, one automated ALERT-type stream level and precipitation gauge would be installed in the project study area. This gauge and an existing gauge near Antelope Creek Drive would help monitor the project's effectiveness over the long-term.

The project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event and these wells would remain subject to inundation as a result of the proposed project. In addition, no new monitoring wells would be subject to inundation as a result of the proposed project. The existing configuration of these monitoring wells is such that temporary inundation does not damage the wells or probes, or hamper the use of landfill facilities when the flooding event has ended. Further, the current protective features of these facilities are such that temporary flooding is not expected to damage the well or probe. Current sampling frequencies allow ample time for storm waters to recede and normal conditions to return prior to a sampling event. Therefore, no modifications to the existing monitoring wells would be necessary. Additional details of the proposed weirs are discussed in Section 2.3.3.

Recreation: The proposed recreational element of the project includes improving access to two existing trailheads by providing on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive. Approximately ten stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. During construction of the Phase 2 (Upper Weir), public access to the multi-use trail would be closed and rerouted. A detour for the trail would be established along Antelope Creek Drive, Creekside Ridge Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system. Each of the streets associated with the detour have a paved and striped bike lane along with sidewalks. See Section 3.15 Recreation and Section 3.16 Transportation/Traffic for a full analysis of potential construction-related recreation and bicycle transportation impacts. In addition, an interpretive exhibit would be installed in the project study area to help educate the public on the project as they utilize the existing multi-purpose trail system. The proposed recreational elements would be consistent with the Dry Creek Greenway Regional Vision Plan (DCGRVP) (Placer County 2004).

Aquatic and Riparian Habitat Restoration: As part of the proposed project, portions of the existing stream channel would be restored to provide enhanced habitat for anadromous (migratory) fish species. The proposed aquatic and riparian habitat restoration components would follow CDFW California Salmonid Stream Habitat Restoration Manual and the U.S. Department of Agriculture Natural Resources Conservation Service's Stream Corridor Restoration Principles, Processes and Practices.

Figure 2-2 Proposed Project Study Area and Project Impact Areas



Aquatic and riparian habitat restoration areas would be located throughout the project study area and would include invasive species removal, stream corridor habitat improvements, fish passage improvements, and oak woodland habitat restoration. Aquatic and Riparian Habitat Restoration Areas are discussed further in Sections 2.3.4 and 2.3.5.

2.3.3 Flood Control Features

Phase 1 (Lower Weir)

The Phase 1 (Lower Weir) site would involve construction of a new flood control structure that includes a low-flow culvert, a primary weir, and a secondary weir. The proposed culvert outlet structure would require clearing of the area in preparation for fill to be placed. Construction would include installing a culvert outlet structure with natural streambed bottom through the use of sediment retention sills to pass low flows and a rock weir at the culvert outlet tailwater. The overall natural channel slope would be maintained to meet fish passage requirements. New fill would be placed in the creek, and along the floodplain for construction of the weir embankment. The culvert outlet structure would be cast-in-place or delivered in precast sections and placed by crane in the channel. Joint sealing would be installed once any precast sections are in place. Fill would be placed in lifts and compacted in place around the culverts. The culvert outlet structure would be approximately 20 feet wide by approximately 140 feet long. The culvert outlet design allows the low flow channel to meet the key objectives of the proposed project and conform to culvert design criteria and stream crossing guidelines of the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS). These criteria and guidelines are contained in the latest version of the California Salmonid Stream Habitat Restoration Manual.

A primary weir with approximately the same width as the low-flow culvert outlet structure would be designed and constructed to overtop during the 15- or 20-year storm event. The secondary weir or the top of embankment would be designed and constructed to overtop during approximately the 100-year flood event. The adjacent, nearby side slopes of the creek would be protected with erosion control mat and/or hard armoring (riprap and articulating concrete block), if needed. Any section of the structure that allows vegetation through the erosion protection material would be vegetated. Oak trees within the limit of construction would be protected to the extent possible. In order to maintain the erosion control mat where it is cut for the opening around an oak tree, the mat would be staked with anchors around the opening to provide space between the mat and the trunk of the oak tree. Figure 2-3 shows the Phase 1 (Lower Weir) Layout.

Phase 2 (Upper Weir)

At this location, the existing culverts and bike path would be removed and a larger and higher weir structure would be constructed. Construction of the Phase 2 (Upper Weir) culvert outlet structure would be the same as for the Phase 1 (Lower Weir) discussed above. The culvert outlet structure would be approximately 20 feet wide by approximately 140 feet long. A primary weir with approximately the same width as the low-flow culvert would be designed and constructed to overtop during the 15- or 20-year storm event. The secondary weir or the top of embankment would be designed and constructed to overtop during approximately the 100-year flood event.

The bike path would be rebuilt on top of the embankment and would meet City of Roseville Design Standards for bikeways. The asphalt pavement width would be 14 feet wide and profile grades would be less than 5%. Fencing would be installed adjacent to the bike path. The adjacent, nearby side slopes of the creek would be protected with erosion control mat and/or hard armoring (riprap and articulating concrete block), if needed. Oak trees within the limit of construction would be protected to the extent possible. In order to maintain the erosion control mat where it is cut for the opening around an oak tree, the mat would be staked with anchors around the opening to provide space between the mat and the trunk of the oak tree. Figure 2-4 shows the Phase 2 (Upper Weir) Layout.

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Figure 2-3 Phase 1 (Lower Weir) Layout

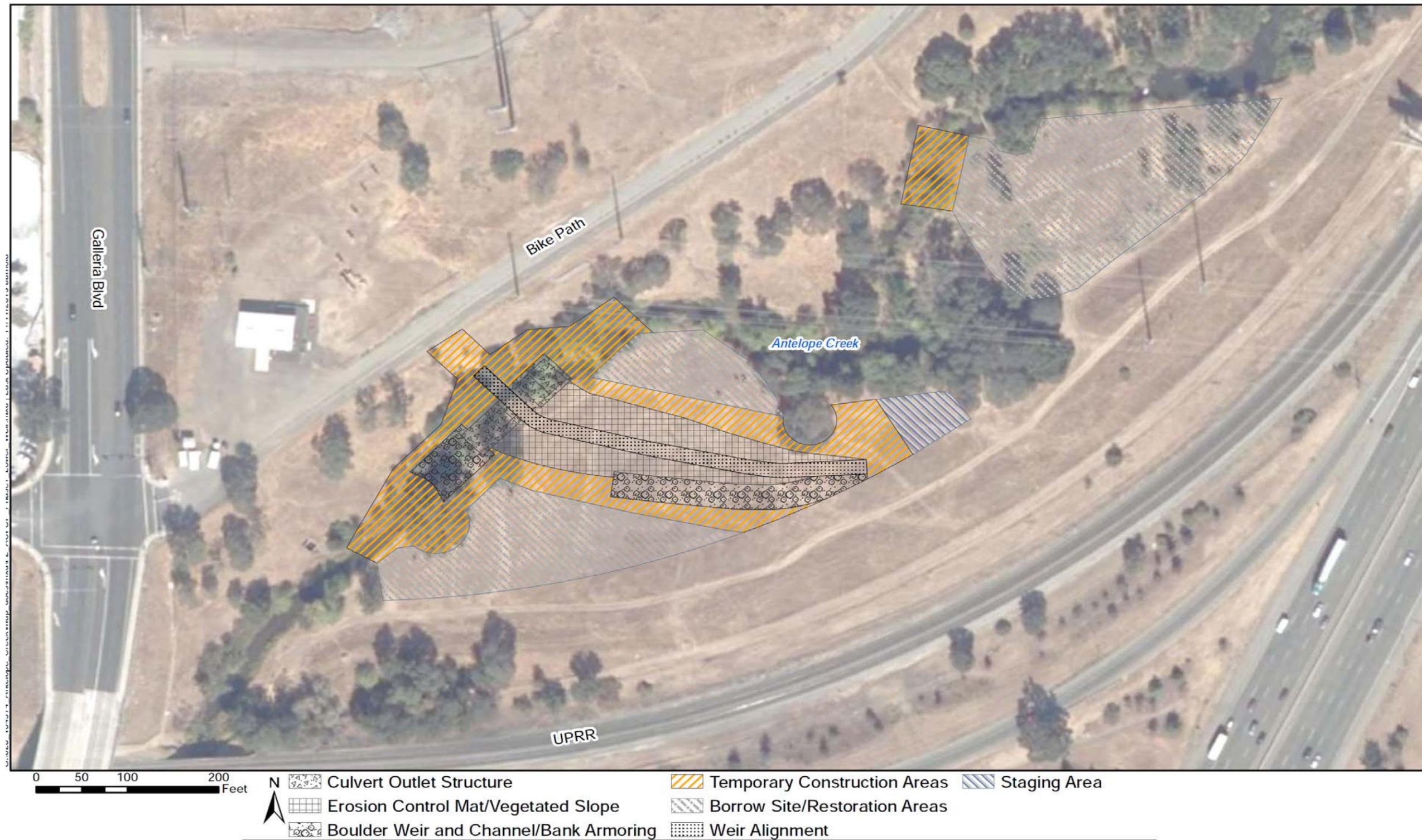
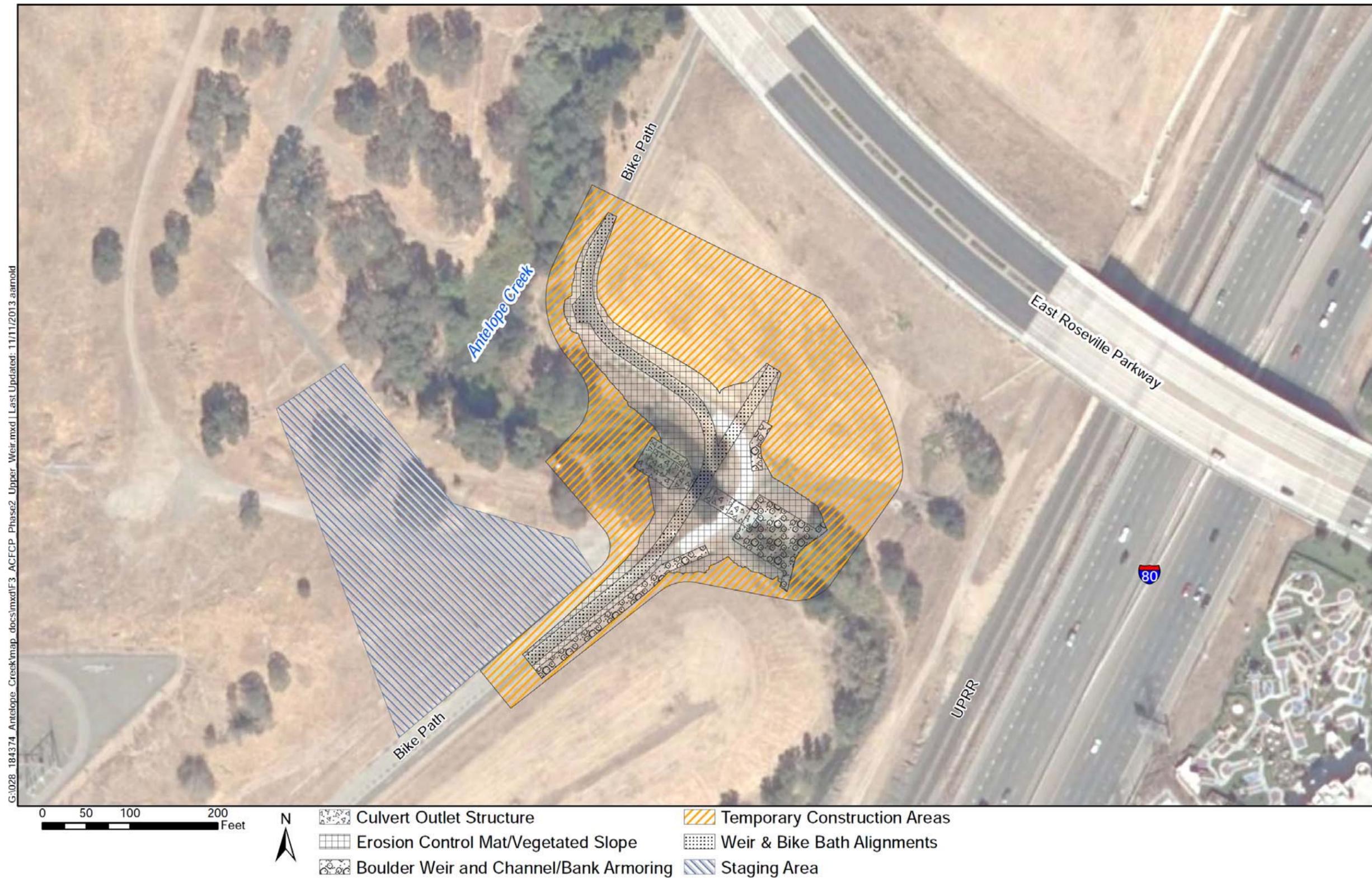


Figure 2-4 Phase 2 (Upper Weir) Layout

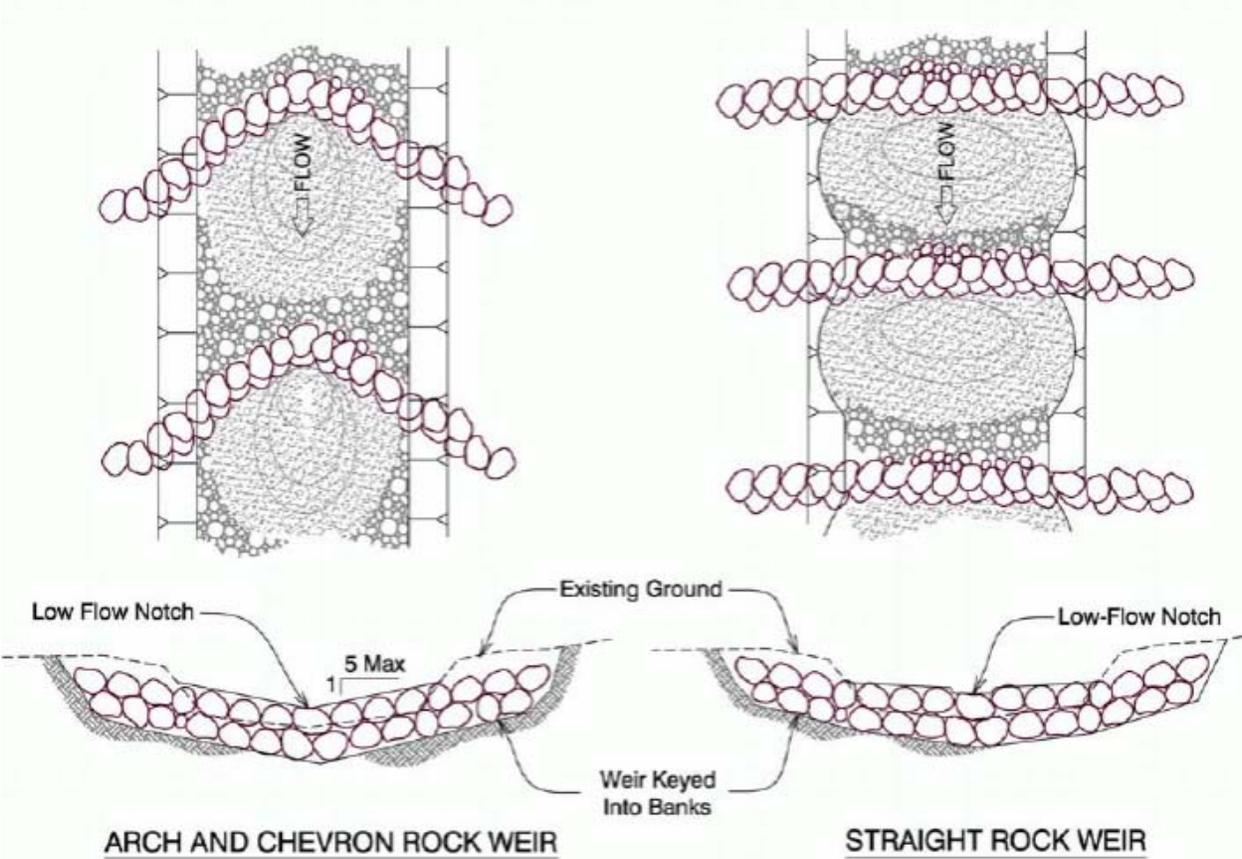


2.3.4 Aquatic Habitat Restoration

Aquatic habitat restoration components include both channel grading for enhanced natural-channel morphology and construction of in-stream structures. Possible in-stream features include large wood structures, boulder clusters, and embedded weirs. Wood structures can be constructed from root wads and logs anchored to existing on-bank large trees or imported large boulders. These structures are being considered in various locations throughout the project study area to increase channel complexity and hydraulic diversity and enhance spawning and rearing habitat for migratory salmonids.

Boulder weirs would be constructed downstream of the Phase 1 (Lower Weir) and the Phase 2 (Upper Weir) sites to provide creek profile control and pool habitat formation. The boulder weirs would be constructed per the CDFW's California Salmonid Stream Habitat Restoration Manual guidelines for rock weirs. Given the low slope of the channel and lack of channel entrenchment, the boulder weirs would not have to be very robust. The boulder weirs would span the creek channel (approximately 50 feet wide) and would be embedded into the channel bottom. The cross slope of the weirs would be 5% or less and the weir ends would be extended into the banks to minimize risk of flanking. Figure 2-5 shows examples of conceptual rock weirs from the California Salmonid Stream Habitat Restoration Manual. Figure 2-6 shows the locations of proposed aquatic habitat restoration.

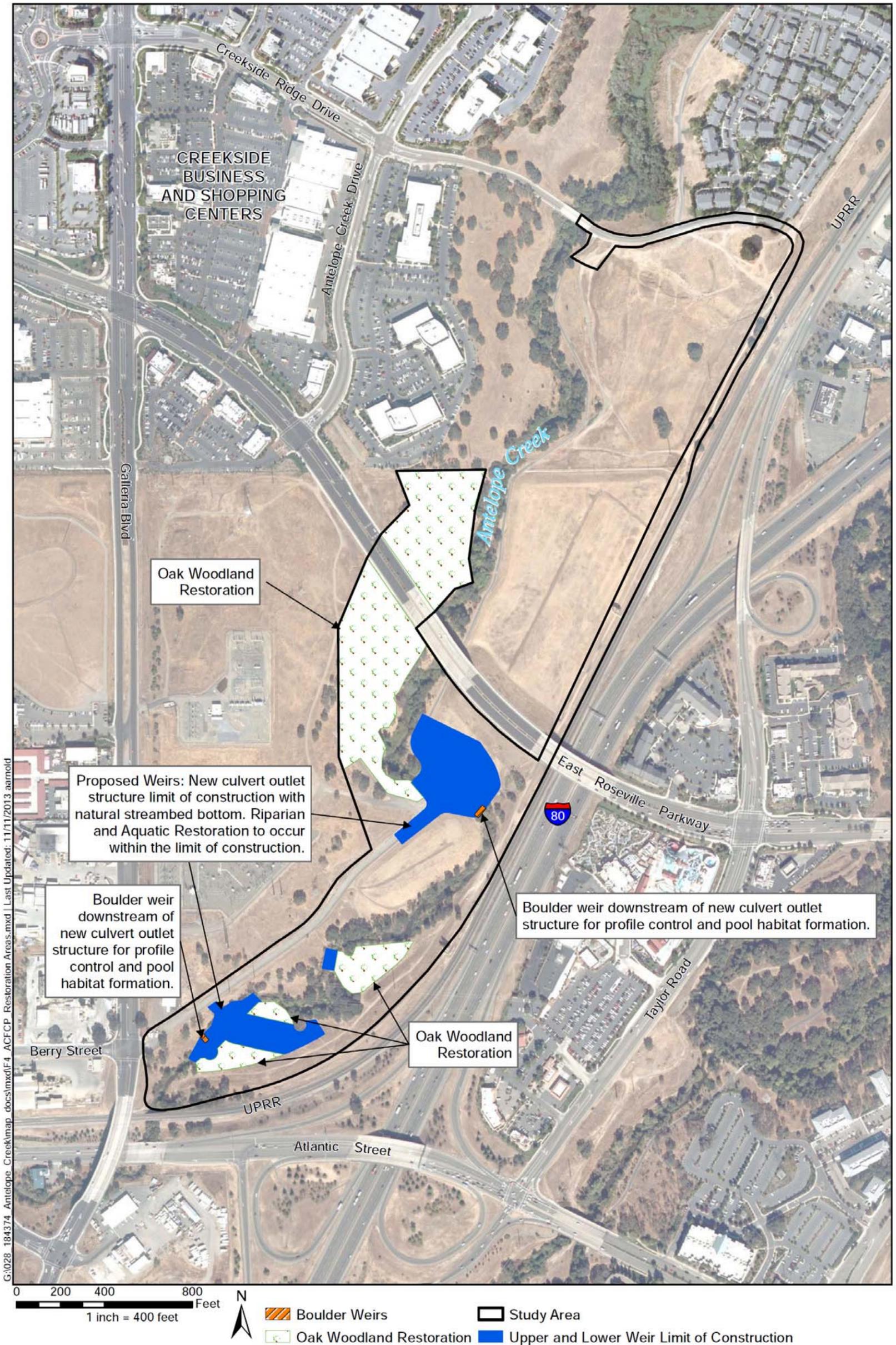
Figure 2-5. Example of Conceptual Rock Weirs



Source: State of California, 2010.

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Figure 2-6 Proposed Aquatic, Riparian, and Oak Woodland Habitat Restoration Areas



2.3.5 Riparian and Oak Woodland Habitat Restoration

Riparian restoration elements would include invasive weed removal in several portions of the project study area. Invasive exotic weed removal is recommended in the areas surrounding the weir sites and the aquatic habitat restoration areas. There are several areas of the invasive weed, Giant Reed (*Arundo donax*) located throughout the project study area that could be removed as part of the proposed project. Removal of giant reed would involve the use of heavy tools (e.g., rotary brush-cutter, chainsaw or tractor-mounted mower) to remove and cut down the majority of the biomass followed by application of chemical treatments to remove the rhizomes or roots. Complete mechanical eradication is extremely difficult, even with use of a backhoe, as buried rhizomes readily re-sprout; therefore, chemical control would be used to achieve eradication. The most common herbicidal treatment against giant reed is glyphosate, primarily in the form of Rodeo®, which is approved for use in wetlands (Round-Up® can be used away from water). Because glyphosate is a broad-spectrum herbicide, care would be taken to avoid application or drift onto desirable vegetation. The most effective chemical treatment of giant reed is post-flowering and pre-dormancy, usually in late July to early October when plants are moving nutrients into roots and rhizomes. After eradication, assessment and treatment should be conducted, and return spot treatments over the following six months may be necessary. (Team Arundo Del Norte 2013)

The project study area also supports some small populations of aquatic and riparian weeds, which would be controlled or eradicated, where possible, within the vicinity of the weir sites. Finally, Himalayan blackberry extends throughout the riparian zone in the project study area and, in some cases, up into adjacent oak woodland habitat. Management of Himalayan blackberry in the vicinity of Phase 2 (Upper Weir) is recommended, but complete eradication is not feasible. Weed control can be done with chemicals in some instances and by manual or mechanical methods in others. Himalayan blackberry can also be managed with goat grazing, mechanical means, and/or correctly timed spraying with appropriately labeled herbicides.

The project study area also supports several areas of oak woodland habitat. Oak woodland mitigation plantings from previous projects in the vicinity are located between the Upper and Lower weir sites and have successfully rooted. In addition to the requirements established under the City of Roseville's Ordinance 19.66.070 for Oak Tree Planting and Replacement, which the project would comply with, oak woodland restoration is proposed in the area north of the Upper Weir along the west side of the creek. In this area, oak trees would be planted along with any replacement plantings or transplanted trees that would be required as mitigation for the project. Oaks, up to two year old and grown in deep five gallon containers, would be spaced such that they do not compete with one another or with established vegetation. Water trucks would be utilized to water the oak trees during the establishment period following planting, at which time the trees should be able to survive without irrigation.

A Tree Planting and Maintenance Plan showing species, size, spacing and location of plantings, and the location and species of established vegetation would be prepared. A monitoring program would also be established to ensure compliance with any prescribed mitigation measures established by the project and to monitor the oak woodland restoration area. The oak woodland restoration area along with any mitigation plantings would be maintained for five to seven years from the date of planting, in accordance with Public Resources Code Section 21083.4. During the five to seven year maintenance period, dead or dying trees would be replaced with trees of the same species and size in order to achieve an 80% survival rate at the end of the maintenance period. If an 80% survival rate is not achieved at the end of the maintenance period, all dead or dying trees at that time would be replaced. Figure 2-6 shows the locations of proposed riparian and oak woodland habitat restoration.

2.3.6 Other Construction Details

Staging Areas and Access

Staging areas and site access must be established for the Phase 1 (Lower Weir) and Phase 2 (Upper Weir) sites to provide room for the use and distribution of materials and equipment. It is anticipated that personnel, equipment, and imported materials would reach the project study area via I-80, SR 65, Galleria Boulevard, Antelope Creek Drive, and Berry Street. Access to the weir sites would be from Antelope Creek Drive on the upstream end of the project study area and by Berry Street from Galleria Boulevard on the downstream end of the project study area. From Antelope Creek Drive, access would run south and along an existing easement parallel to the UPRR line and I-80 to the Phase 1 (Lower Weir) and the Phase 2 (Upper Weir) sites. Berry Street leads to private gravel and/or paved roads that also lead to the Phase 2 (Upper Weir) site. Figure 2-2 shows the proposed construction access routes.

The staging area for Phase 1 (Lower Weir) would be located on the eastern side of the creek adjacent to the Limit of Construction. The staging area for Phase 2 (Upper Weir) would be located on the western side of the creek adjacent to the Limit of Construction and would not encroach on landfill locations. Staging areas would contain contractor’s trailers, parking, fencing, and storage of equipment and materials. Figure 2-2 shows the staging areas.

Construction of the proposed project would be coordinated with the City of Roseville to ensure that access to the City’s utilities in the project study area is maintained during construction activities.

Borrow Areas

Approximately 24,000 cubic yards of borrow material would be required for construction of both weirs. Excavated material from the Phase 2 (Upper Weir) site would be reused as much as possible and material would only be imported as necessary. Borrow materials would be obtained from onsite borrow areas or purchased from local offsite locations and delivered. The onsite borrow areas are on the east side of Antelope Creek, adjacent to the Phase 1 (Lower Weir) site. Figure 2-2 shows the borrow area locations. If offsite material is necessary, it would be brought to the site from a source within the Sacramento area. Upon completion of the proposed construction activities, borrow areas would be cleared of all equipment, materials, and project refuse, then re-graded for positive drainage toward the creek.

Construction Equipment

Table 2-1 provides a description of the types of equipment likely to be used during construction of the proposed project. Additional equipment may include air compressors to operate tools and other equipment; welding equipment; pumps and piping; communications and safety equipment; and vehicles used to deliver and move equipment, materials, and personnel.

Table 2-1 Construction Equipment

Equipment	Construction Purpose
Backhoe/Front-end Loader	Soil Manipulation and Drainage Work
Bobcat	Fill Distribution
Dozer	Soil Manipulation and Earthwork Construction

Equipment	Construction Purpose
Scraper	Soil Manipulation and Earthwork Construction
Compactor	Soil Manipulation and Earthwork Construction
Concrete Truck	Delivering and Pouring Concrete
Haul Truck	Earthwork Construction and Clearing/Grubbing
Hydraulic Excavator	Deep Excavations
Hydraulic Crane	Place Precast Concrete Span/Box Culverts
Water Truck	Watering of the construction site for dust control and irrigation spraying for restoration areas

Construction-Related Traffic

As noted above, personnel, equipment, and imported materials would reach the project area via I-80, SR 65, Galleria Boulevard, Antelope Creek Drive, and Berry Street. Berry Street and other smaller roads, including the multi-use trail may require repair after construction use due to anticipated heavy loads. The construction labor force is estimated to average 10-15 persons over the construction period for each weir.

Construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. Also, the majority of construction truck traffic would be within the project study area, moving between the staging/borrow areas to and from the weir and restoration sites. These routes do not cross any major roads and therefore, would not impact local vehicle traffic. However, materials would need to be brought to the site from sources within the Sacramento area and would use I-80 to deliver these materials. In addition, some materials and equipment needed for the project would be pre-assembled prior to transport to the project site. The proposed project could generate up to 560 total truck trips on I-80 over both 4-month construction periods; however, the majority of these would occur during the mobilization phase of construction when materials are brought to the site. Thus one-way truck trips from off-site on I-80 would average 30 per month/1-2 per day for the Upper Weir and 110 per month/ 5 per day for the Lower Weir over each 4-month construction period. See Section 3.16 Traffic/Transportation for a full analysis of potential construction-related traffic impacts.

Rip rap and native soil removed at the Phase 2 (Upper Weir) site would be reused to the extent possible in weir construction. Any soil not reused in weir construction would be placed back in the borrow areas or disposed of on-site as directed by the City. Construction debris and waste materials would be disposed of on-site or, if necessary due to contamination, would be transported off-site to a suitable landfill.

Construction Scheduling

A construction period of approximately four months is planned for Phase 2 (Upper Weir) and the restoration elements, beginning in June 2014 and ending in October 2014. Estimated work hours are from 7:30am to 4:00pm, Monday through Friday. Based on funding, Phase 1 (Lower Weir) would be constructed at a later time likely between 2014 and 2019. Phase 1 (Lower Weir) would also have an approximately four month construction window, beginning in June and ending in October. Estimated work hours for Phase 1 (Lower Weir) would also be from 7:30am to 4:00pm, Monday through Friday.

Operation and Maintenance

To provide space for operation and maintenance of the proposed project, the District would utilize existing available easements in the project study area. No additional land is anticipated for acquisition as part of construction of the proposed project. The proposed project would lessen the long-term burden of maintenance and repairs in the project study area and therefore, would not result in substantial changes to operation and maintenance.

2.4 PERMITS AND APPROVALS NEEDED

The following permits, approvals, and reviews would be required for project construction:

Agency	Permit/ Approval/ Review
Federal	
United States (U.S.) Army Corps of Engineers	<ul style="list-style-type: none"> • Clean Water Act, Section 404 Nationwide Permits #3 and #27 for filling or dredging Waters of the United States • U.S. Fish and Wildlife Service and National Marine Fisheries Service - Federal Endangered Species Act, Section 7 compliance • State Historic Preservation Officer - National Historic Preservation Act, Section 106 compliance
State	
California Department of Fish and Wildlife	Section 1601 of the California Department of Fish and Game Code - Streambed Alteration Agreement
California State Water Resources Control Board	Clean Water Act, Section 401 - Water Quality Certification
Central Valley Regional Water Quality Control Board	<ul style="list-style-type: none"> • Waste Discharge Requirement No. R5-2004-0104 Amendment for the City of Roseville Landfill • National Pollutant Discharge Elimination System (NPDES) - General Construction Stormwater Permit
Local	
City of Roseville	<ul style="list-style-type: none"> • Tree Permit • Coordination on project planning and consistency with local plans
Placer County	<ul style="list-style-type: none"> • Solid Waste Facility Permit as part of the post-closure Maintenance Plan for the City of Roseville Landfill (administered through County Health Department/ Cal Recycle) • Coordination on project planning and consistency with local plans
Placer County Air Pollution Control District	Consultation for an Authority to Construct Permit

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Environmental Checklist

This Initial Study is a public document to be used by the Placer County Flood Control and Water Conservation District, designated lead agency for CEQA purposes, to determine whether the project may have a significant effect on the environment. If the Lead Agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the Lead Agency is required to prepare an environmental impact report (EIR), use a previously prepared EIR and add a supplement, or prepare a subsequent EIR to analyze the project at hand. If the Lead Agency finds no substantial evidence that the project or any of its aspects may cause a significant impact on the environment, a Negative Declaration shall be prepared. If, in the course of the analysis, it is recognized that the project may have significant impacts on the environment, but these impacts can be reduced to a level that is less-than-significant with specific mitigation measures, a Mitigated Negative Declaration shall be prepared.

This Section provides an evaluation of the potential environmental impacts of the proposed project, followed by the CEQA Mandatory Findings of Significance. There are 17 specific environmental issues evaluated in this Section, which satisfies CEQA requirements. The environmental issues evaluated in this chapter consist of the following:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

For each issue, one of four conclusions is made:

- **No Impact:** No project-related impact to the environment would occur with project development.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- **Less-Than-Significant Impact:** The impact would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.
- **Potentially Significant Unless Mitigation Incorporated:** An impact that is "potentially significant" as described below; however, the incorporation of mitigation measures would reduce the project-related impact to a less-than-significant level.
- **Potentially Significant Impact:** An impact that may have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382); however, the occurrence of the impact cannot be immediately determined with certainty.

DETERMINATION (To be completed by the Lead Agency)	
On the basis of this initial evaluation:	
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	<input checked="" type="checkbox"/>
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	<input type="checkbox"/>
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	<input type="checkbox"/>
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	<input type="checkbox"/>
_____	_____
Signature	Date
Brian Keating P.E.	District Manager
Printed Name	Title
Placer County Flood Control and Water Conservation District Agency	

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.1 AESTHETICS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
--	--------------------------------------	--	-------------------------------------	--------------

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

Views to and from the project study area vary due to the length of the proposed project, and depending upon the location of the viewer, may include portions of Antelope Creek and creek embankments, riparian corridors, oak woodlands, open space, recreational features, roadways, closed landfills, railroad tracks, and residential and commercial development. Portions of the project area are visible to recreational users and adjacent residential and commercial properties. In addition, vehicles can view the project study area when traveling on westbound I-80, as well as on Roseville Parkway as it crosses Antelope Creek.

DISCUSSION OF IMPACTS

- a) No Impact – Because of the low elevation of the project study area relative to the surrounding topography and the amount and type of existing vegetation, views of the project area are largely limited to the immediate vicinity of the project. There are no designated scenic vistas in the project study area (City of Roseville 2013). Therefore, no impact would occur with project implementation.

- b) No Impact – No designated or eligible state scenic highways are located in the vicinity of the proposed project (California Department of Transportation [Caltrans] 2007). Therefore, no impact would occur with project implementation.

- c) Less-than-Significant Impact – Alterations to the visual character of the project study area during construction (i.e., presence of construction equipment and staging areas) would be isolated and temporary, but would be visible to adjacent residents and recreational users. Upon completion of construction activities all equipment would be removed from the project study area. The proposed project also includes two weirs, stream channel and habitat restoration components, including removal of non-native plants and re-planting

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

with natives. Therefore, degradation of the visual character or quality of the site or its surroundings is not anticipated, while improvements to the same are likely, making negative impacts less-than-significant.

- d) No Impact – The proposed project’s construction activities would be temporary and would be completed within approximately two-four month periods. To the extent practicable, construction activities would be completed during daylight hours. Security lighting at the staging areas may be required. The proposed project does not include installation of any new permanent sources of light or glare. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project is not anticipated to significantly impact the aesthetic environment including scenic vistas or resources, the existing visual character, and/or result in new sources of light or glare. Because there are no scenic vistas/scenic highways in the project vicinity, change in the visual setting would be small due to limitations in scale, bulk and mass of the weirs and the lack of permanent new lighting associated with the facilities

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.2 AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

The project study area is located within and adjacent to the channel of Antelope Creek. The majority of the project study area is located within the floodplain and contains riverine habitats. There are no agricultural or forestry resources located within the project study area. The project area is not designated by the State of California Farmland Mapping and Monitoring Program as prime, unique, or farmland of statewide importance.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

DISCUSSION OF IMPACTS

- a) No Impact – There are no farmlands designated as prime, unique, or of statewide importance located within the project study area, thus the proposed project would not convert any farmlands designated as prime, unique, or of statewide importance to non-agricultural uses. Therefore, no impact would occur with project implementation.
- b) No Impact – No agricultural lands or Williamson Act contracts are located within the project study area or would be affected by the proposed project. Therefore, no impact would occur with project implementation.
- c) No Impact – No forest land, timberland, or timberland zoned Timberland Production are located within the project study area or would be affected by the proposed project. Therefore, no impact would occur with project implementation.
- d) No Impact – As mentioned under b) above, no forest land is located within the project study area or would be affected by the proposed project. Therefore, no impact would occur with project implementation.
- e) No Impact – See responses to items a), b), and c) above.

CONCLUSION

The proposed project is not anticipated to significantly impact agriculture and forest resources due to the lack of agricultural resources in the project vicinity.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.3 AIR QUALITY

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

The project study area is located in the western portion of Placer County, within the Sacramento Valley Air Basin (SVAB). The SVAB is a broad, flat valley bounded by the Coastal Range to the west, the Sierra Nevada to the east, the Cascade Range to the north, and the San Joaquin Valley Air Basin to the south. The project study area is located within the jurisdictional boundaries of the Placer County Air Pollution Control District (PCAPCD) and is subject to rules and regulations developed by the PCAPCD. The PCAPCD is responsible for implementing and enforcing state and Federal air quality regulations. The air quality within the PCAPCD has been characterized by the U.S. Environmental Protection Agency (USEPA) as a nonattainment area for 8-hour ozone (O₃) and particulate matter equal to or less than 2.5 microns in diameter (PM_{2.5}). However, the California Air Resources Board (CARB) has designated the PCAPCD as a nonattainment area for 8-hour and 1-hour O₃, PM₁₀, and PM_{2.5} (PCAPCD, 2012).

In accordance with Federal Clean Air Act (CAA) requirements, the air quality in a given region or area is measured by the concentration of criteria pollutants in the atmosphere. The air quality in a region is a result of not only the types and quantities of atmospheric pollutants and pollutant sources in an area, but also surface topography, the size of the topological "air basin," and the prevailing meteorological conditions.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Under the CAA, the USEPA developed numerical concentration-based standards, or National Ambient Air Quality Standards (NAAQS), for pollutants that have been determined to affect human health and the environment. The NAAQS represent the maximum allowable concentrations for O₃ - measured as either volatile organic compounds (VOCs) or total oxides of nitrogen (NO_x), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur oxides (SO_x), respirable particulate matter (including PM₁₀ and PM_{2.5}), and lead (Pb) (40 Code of Federal Regulations [CFR] Part 50). The CAA also gives the authority to states to establish air quality rules and regulations. The State of California has adopted the NAAQS and promulgated additional California Ambient Air Quality Standards (CAAQS) for criteria pollutants. The CAAQS are more stringent than the Federal primary standards. Table 3-1 presents the USEPA NAAQS and CAAQS.

USEPA classifies the air quality in an Air Quality Control Region (AQCR), or in subareas of an AQCR, according to whether the concentrations of criteria pollutants in ambient air exceed the NAAQS. Areas within each AQCR are therefore designated as either "attainment," "nonattainment," "maintenance," or "unclassified" for each of the six criteria pollutants. Attainment means that the air quality within an AQCR is better than the NAAQS; nonattainment indicates that criteria pollutant levels exceed NAAQS; maintenance indicates that an area was previously designated nonattainment but is now attainment; and an unclassified air quality designation by USEPA means that there is not enough information to appropriately classify an AQCR, so the area is considered attainment. USEPA has delegated the authority for ensuring compliance with the NAAQS to CARB. CARB has delegated responsibility for implementation of the CAA and California CAA to local air pollution control agencies. In accordance with the CAA, each state must develop a State Implementation Plan (SIP), which is a compilation of regulations, strategies, schedules, and enforcement actions designed to move the state into compliance with all NAAQS.

Table 3-1 National and State Ambient Air Quality Standards

Pollutant	Averaging Time	Standard Value		Federal Standard Type
		Federal	State	
CO	8-hour ^a	9 ppm (10 mg/m ³)	Same	Primary
	1-hour ^a	35 ppm (40 mg/m ³)	20 ppm (23 mg/m ³)	Primary
NO ₂	Annual Arithmetic Mean	0.053 ppm (100 µg/m ³)	0.030 ppm (57 µg/m ³)	Primary and Secondary
	1-hour	0.100 ppm	0.18 ppm (339 µg/m ³)	None
O ₃	8-hour ^b	0.075 ppm (147 µg/m ³)	0.070 ppm (137 µg/m ³)	Primary and Secondary
	1-hour ^c	--	0.09 ppm (180 µg/m ³)	Primary and Secondary
Pb	Quarterly average	1.5 µg/m ³	--	Primary and Secondary
	30-Day	--	1.5 µg/m ³	
PM ₁₀	Annual Arithmetic Mean	--	20 µg/m ³	
	24-hour	150 µg/m ³ ^d	50 µg/m ³	Primary and Secondary
PM _{2.5}	Annual Arithmetic Mean ^e	12 µg/m ³	12 µg/m ³	Primary and Secondary

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Pollutant	Averaging Time	Standard Value		Federal Standard Type
		Federal	State	
	24-hour	35 µg/m ³	Same	Primary and Secondary
SO ₂	Annual Arithmetic Mean	0.030 ppm	--	Primary
	24-hour ^a	0.14 ppm	0.04 ppm	Primary
	1-hour	0.075 ppm	0.25 ppm	None

Sources: **PCAPCD 2012**

Notes: Parenthetical values are approximate equivalent concentrations.

- a. Not to be exceeded more than once per year.
- b. To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. This standard is effective on May 27, 2008, and replaces the 1997 8-hour ozone standard of 0.08 ppm. However, the 1997 standard and its implementing rules remain in effect while USEPA undergoes rulemaking to transition to the 2008 standard.
- c. As of June 15, 2005, USEPA revoked the Federal 1-hour ozone standard in all areas except the 14 8-hour ozone nonattainment Early Action Compact Areas.
- d. Not to be exceeded more than once per year on average over 3 years.
- e. To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 12.0 µg/m³.

Key: ppm = parts per million; mg/m³ = milligrams per cubic meter; µg/m³ = micrograms per cubic meter; km = kilometer

The current project-level thresholds of significance recommended by the PCAPCD related to the impacts of construction and operational emissions associated with a land use project are outlined below in Table 3-2.

Table 3-2 PCAPCD Recommended Project-Level Thresholds of Significance

	Thresholds of Significance (lbs per day)		
	ROG	NOx	PM10
Construction Emissions	82	82	82
Operational Emissions	82	82	82

Key: lbs = pounds; ROG = reactive organic gases

DISCUSSION OF IMPACTS

- a) **Less-than-Significant Impact** – As described in Chapter 2 Project Description, the proposed project anticipates a construction period of approximately four months for Phase I and an additional four months for future Phase 2. Estimated construction hours would be from 7:30 am to 4:00 pm, Monday through Friday. Emissions from construction activities associated with the proposed project would have short-term, minor impacts on local air quality and would have negligible impacts on regional air quality. Implementation of the proposed project is not anticipated to conflict with or obstruct implementation of the regions' air quality attainment plans, and impacts would be less-than-significant.

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b-c) Less-than-Significant Impact - Construction of the proposed project would generate air pollutant emissions (i.e., dust generation) as a result of grading activities and operation of construction equipment. Fugitive dust emissions would be greatest during the initial site preparation activities and would vary from day to day depending on the construction phase, level of activity, and prevailing weather conditions.

Construction emissions for the proposed project were calculated based on the anticipated construction schedule and equipment to be used, and the number of estimated truck trips outlined in Chapter 2 Project Description. These project details were entered into the CalEEMod v.2013.2.2, a statewide land use emissions computer model used to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with construction and operations from a variety of land use projects and are shown in Table 3-3 below.

Table 3-3 Construction Emissions for the Proposed Project

	Construction Emissions (lbs per day)		
	ROG	NOx	PM10
Phase 1 Lower Weir	2.01	21.9	1.38
Phase 2 Upper Weir	2.44	26.75	1.57

Key: lbs = pounds; ROG = reactive organic gases

Construction activities for the proposed project would be temporary and short-term, and the increase in criteria pollutants would not exceed the PCAPCD thresholds of significance as shown in Table 3-2, above. Therefore, implementation of the proposed project is not expected to result in violations of any ambient air quality standards.

The proposed project does not include construction or operation of any emission generating sources that would result in, or contribute to, long term increases in emissions. However, construction activities associated with implementation of the proposed project are expected to contribute to a temporary increase in local levels of criteria pollutants. However, since the proposed project's contribution of criteria pollutants is expected to be less than the PCAPCD thresholds of significance, and the District would incorporate best management practices (BMPs) and environmental protection measures during construction and adhere to PCAPCD regulations, the proposed project is not anticipated to result in a cumulatively considerable net increase of any criteria air pollutants for which the PCAPCD is already designated as non-attainment. In addition, a Construction Emission/Dust Control Plan would be submitted to the PCAPCD prior to approval of grading plans, and shall include measures to reduce the proposed project's short-term construction impacts. Thus, impacts related to emissions of criteria air pollutants would be less-than-significant and no mitigation would be required.

d) No Impact – Project construction activities, including site preparations and construction of the proposed weirs would result in short-term generation of diesel exhaust emissions from the use of off-road diesel equipment required for earthwork and other construction activities. Particulate exhaust emissions from diesel fueled engines were identified as a toxic air contaminant (TAC) by CARB in 1998. However, no residential properties are located

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within 0.50 miles of the proposed construction activities, resulting in no nearby sensitive receptors that would be potentially exposed to TAC during construction activities. Therefore, no impact would occur and no mitigation would be required.

- e) No Impact - Construction activities would generate emissions that may be considered an objectionable odor by some individuals. However, emissions associated with construction activities, such as diesel exhaust from the use of on-site construction equipment, would be intermittent and temporary, and would dissipate rapidly from the source with an increase in distance. Thus, implementation of the proposed project would not expose sensitive receptors to odorous emissions, and no long-term generation of emissions would result from implementation of the proposed project.

CONCLUSION

The proposed project would not result in significant or cumulative impacts to air quality in the region.

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3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
--	--------------------------------------	--	-------------------------------------	--------------

Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

Existing Conditions Summary

A project study area (study area) was defined for the purposes of documenting existing biological resources in the area and vicinity. The study area includes the area that would be directly impacted by construction of the proposed Phase 1 (Lower Weir), Phase 2 (Upper Weir), aquatic habitat restoration, oak woodland and riparian restoration areas, plus a buffer deemed to be of sufficient size to encompass any areas of potential indirect impacts. The study area also includes construction parking and access routes, staging areas, and borrow areas. The

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boundaries of the study area are shown on Figure 3-1, which includes habitat types in the study area. Project Impact areas were also defined and include all areas that are anticipated to be permanently or temporarily impacted by construction of the proposed project including the weir locations, staging areas, borrow areas, restoration areas, and construction access routes.

Habitat Types

The study area supports 11 distinct habitat types, which are shown on Figure 3-1. Detailed habitat descriptions are provided below. The descriptions of habitat types and species present are based on observations made during field surveys. Habitat nomenclature is generally derived from the *California Wildlife Habitat Relationships System* (CDFW 2013), and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1992). Vegetation and habitat classifications were derived from the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986).

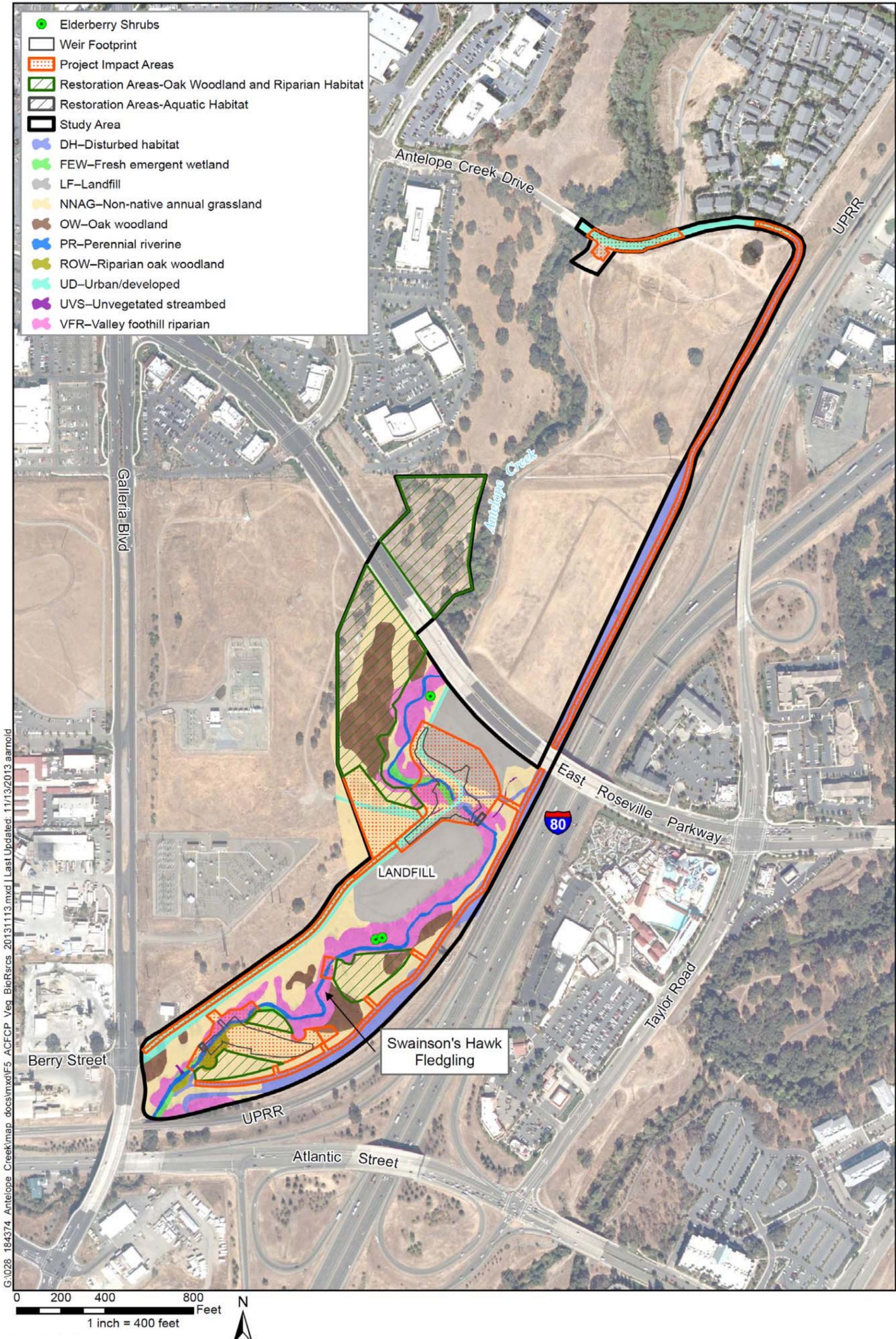
Terrestrial plant communities/habitat types within the study area include non-native annual grassland, disturbed habitat, landfill, oak woodland, riparian oak woodland, urban/developed, and valley foothill riparian. Aquatic communities/habitat types within the study area include arundo-dominated (*Arundo donax*) riparian, fresh emergent wetland, perennial riverine, and un-vegetated channel. Table 3-4 summarizes the acreages of habitat types in the study area and within the project impact areas, which is defined as all areas that could potentially be permanently or temporarily impacted by construction activities.

Table 3-4 Habitat Types (by Acre) Within the Study Area

Habitat Type	Acreage Within the Study Area	Acreage within project impact areas*	
		Temporary	Permanent
Terrestrial Habitats			
Non-native annual grassland	13.74	7.52	1.04
Disturbed habitat	6.02	2.29	0.06
Landfill	6.27	1.24	0.23
Oak woodland	4.11	2.97	0.00
Riparian oak woodland	0.36	0.18	0.11
Urban/developed	3.26	1.51	0.31
Valley foothill riparian	5.79	0.98	0.2
Aquatic Habitats			
Fresh emergent wetland	0.38	0.1	0.08
Perennial riverine	1.20	0.17	0.15
Unvegetated channel	0.05	<0.00	0.01
Total	41.18	17.00	2.19

*Includes all areas that are anticipated to be permanently or temporarily impacted by construction of the proposed project (Phase 1 and Phase 2) including staging areas, borrow areas, restoration areas, and access routes.

Figure 3-1 Habitat Types in the Project Study Area



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Terrestrial Habitats

Non-Native Annual Grassland

Non-native annual grassland (NNAG) habitats are open grasslands composed primarily of annual plant species. Many of these species also occur as understory plants in Valley Oak Woodland and other habitats. Introduced annual grasses are the dominant plant species in this habitat. These include wild oat (*Avena* spp.), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), wild barley (*Hordeum* sp.), and fescue (*Festuca* spp.). Common forbs include broadleaf filaree (*Erodium botrys*), redstem filaree (*Erodium cicutarium*), turkey mullein (*Croton setigerus*), true clovers (*Castilleja* spp.), bur clover (*Medicago polymorpha*), popcorn flower (*Cryptantha* spp.), and many others.

Within the study area NNAG occurs east of Antelope Creek from Antelope Creek Drive to south of East Roseville Parkway, on the landfill hill south of East Roseville Parkway, and the area east of Antelope Creek between the landfill and the southern project limits. These areas have been cleared and graded or otherwise disturbed, and have colonized with native and non-native annual species including wild oats (*Avena fatua*), soft chess, crab grass (*Digitaria* sp.), hawkweed (*Hieracium* sp.), and black mustard (*Brassica nigra*).

Disturbed Habitat

Disturbed habitat is primarily used to identify areas of severe impacts to natural communities to the extent where it is no longer sustaining or functioning naturally. These areas have been previously physically disturbed, but continue to retain a soil substrate. Disturbed areas consist of predominantly non-native weedy and ruderal exotic species. This is not a natural community and generally does not provide habitat for wildlife or sensitive species.

Within the study area, disturbed habitat occurs within the railroad right-of-way (primarily on the track slopes) and adjacent to and within dirt access roads.

Landfill

A closed landfill occurs within the study area. The landfill is vegetated by NNAG and is routinely mowed.

Oak Woodland

Oak woodlands in the Central Valley form savannah to forest-like stands dominated by Valley oak (*Quercus lobata*), blue oak (*Quercus douglassii*), and interior live oak (*Quercus wislizeni*). The woodlands are typically densest near natural drainages and decrease in density as they transition into drier upland areas. The understory may comprise of shrubs near drainages in relatively undisturbed woodlands, which typically transitions to grassland in the upland areas.

The study area features remnant/disturbed oak woodlands for nearly the extent of the floodplain. The tree density is relatively low – either by natural selection or management for other land uses – and the understory is primarily grasses and annual forbs typical of disturbed environments. The remnant oak woodlands are characterized by a composition of Valley oak, blue oak and interior live oak.

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Riparian Oak Woodland

Riparian oak woodland is similar to oak woodland described above, except that the community is composed primarily of Valley oak (which is more tolerant of mesic soil conditions) with driplines overlapping the streambed and banks. Within the study area, riparian oak woodland occurs in small patches along the creek banks.

Urban/Developed

Urban/developed land is comprised of areas of intensive use with much of the land constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is highly modified and characterized by permanent or semi-permanent structures, pavement, unvegetated areas and landscaped areas that require irrigation.

Within the study area, urban/developed land occurs primarily as the paved bike path running adjacent to Antelope Creek and as a stormwater outfall structure located in the westernmost portion of the study area.

Valley Foothill Riparian

Valley foothill riparian habitat is typically characterized by tiered canopy layers, with species including cottonwood (*Populus fremontii*), valley oak, box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Common understory shrub layer species include blackberry (*Rubus* sp.), blue elderberry (*Sambucus nigra*), buttonbush (*Cephalanthus occidentalis*), and willows. Herbaceous species may include sedges, nettles, and grasses.

Valley foothill riparian is common along the banks of Antelope Creek and immediately adjacent floodplains throughout the study area. The extent of the riparian vegetation associated with this habitat type is limited by adjacent land uses (i.e., landfill, railroad tracks, residential development, and the bike path) and topography. Valley oak is the dominant species comprising the riparian habitat overstory. Poison oak (*Toxicodendron diversilobum*), blackberry, buttonbush, and narrow leaf willow (*Salix exigua*) are common understory shrubs. The herbaceous layer features various grasses and sedges.

Aquatic Habitats

Fresh Emergent Wetland

Fresh emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots to 2 meters (M, 6.6 feet [ft]) tall (Cheatham and Haller 1975, Cowardin et al. 1992). All emergent wetlands are flooded frequently, enough so that the roots of the vegetation prosper in an anaerobic environment (Gosselink and Turner 1978). The vegetation may vary in size from small clumps to vast areas covering several kilometers.

Fresh emergent wetland habitats may occur in association with terrestrial habitats or aquatic habitats including Riverine, Lacustrine and Wet Meadows. The upland limit of fresh emergent wetlands is the boundary between land with predominantly hydrophytic cover and land with primarily mesophytic or xerophytic cover or the boundary between hydric and non hydric soils (Cowardin et al. 1992). The boundary between fresh emergent wetlands and deep water habitats (e.g., Lacustrine or Riverine) is the deep water edge of the emergent vegetation. It is generally accepted that this demarcation is at or above the 2 m depth (Cowardin et al. 1992, Zoltai et al. 1975). The 2 m lower limit

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for emergent wetlands was selected because it represents the maximum depth to which emergent plants normally grow (Welch 1952, Sculthorpe 1967).

Within the study area, fresh emergent wetlands occur as small patches along the banks of Antelope Creek and are dominated by herbaceous wetland species, such as cattails (*Typha* sp.), bulrush (*Schoenoplectus* sp.), American wild mint (*Mentha arvensis*), and tall flatsedge (*Cyperus eragrostis*).

Perennial Riverine

Antelope Creek is a lower perennial riverine habitat characterized by intermittently occurring stretches with steep, cut banks, and stretches with low banks transitioning into adjacent wetlands. The creek features silty and sandy bottom with natural (untreated) banks.

Within the study area, perennial riverine habitat occurs as the unvegetated (i.e., open water) portions of Antelope Creek.

Unvegetated Streambed

Within the study area, unvegetated streambed occurs primarily as shallow upland drainages located in the floodplain. The drainages are dominated by non-native grass species. No wetland or riparian plant species are associated with this community.

Wildlife Movement Corridors

Antelope Creek and adjacent disturbed non-native annual grassland and oak woodland provide a movement corridor for areas between the creek and Miners Ravine east of I-80. The area is considered marginal quality for a movement corridor because it is surrounded by development and supports several pinch points at the Antelope Creek Drive, East Roseville Parkway, UPRR railroad and Atlantic Street crossings. In addition, the culvert under the bike path and large chain link fence running adjacent to the bike path and landfill areas near the Upper Weir location may impede wildlife movement through the riparian corridor. The current culverts within the creek impede fish passage. Pedestrian traffic is high throughout the riparian corridor and floodplain located within the study area. Pedestrian traffic includes recreational users of the bike path, archers, transients, flood control and public utility personnel. The MAYA Archers of Roseville, inc. is a National Field Archery Association club that has an archery course through the project study area. The archery course is frequently used and therefore, wildlife movement through the corridor has likely adjusted to this use or has already moved out of the corridor due to human presence.

Therefore, wildlife is expected to use these areas to travel during the night in order to avoid contact with humans in the adjacent populated areas. Construction of the proposed project would temporarily interfere with wildlife movement during the daytime hours, but wildlife would be free to move through the project area at night. Once construction is complete, wildlife movement in the area is expected to return to pre-project conditions. Implementation of the proposed project would not remove, degrade or otherwise interfere substantially with the structure or function of this marginal wildlife movement corridor.

Sensitive Biological Resources

Sensitive biological resources addressed below are those that are afforded special protection through federal, state, and/or local laws and ordinances due to a variety of factors (summarized in the regulatory setting section). Plant and animal species are typically considered "sensitive" if they are determined to be rare or have a limited geographic range by

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the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), CDFW or other local agencies. Vegetation communities (habitats) are generally considered “sensitive” if: (a) they are considered rare within the region by various agencies including USFWS, CDFW, and other local agencies; (b) if they are known to support sensitive animal or plant species; and/or (c) they are known to serve as important wildlife corridors. Sensitive habitats are typically depleted throughout their known ranges, or are highly localized and/or fragmented.

Existing site conditions were compiled from data gathered from various biological surveys conducted within the study area. Surveys for Waters of the U.S./wetlands, sensitive habitats and natural communities, native oak trees, and Valley elderberry longhorn beetles were conducted in 2012 and 2013.

Sensitive Habitats

Habitats with a State (S) rank of 1-3 are considered sensitive by CDFW. The study area supports one sensitive habitat, valley foothill riparian, which has a similar composition to the S3-ranked *Quercus lobata* (Valley oak woodland) Alliance. Within the study area, valley oak is the dominant species comprising the valley foothill riparian habitat overstory. Poison oak (*Toxicodendron diversilobum*), blackberry (*Rubus sp.*), buttonbush (*Cephalanthus occidentalis*), and narrow leaf willow (*Salix exigua*) are common understory shrubs. The herbaceous layer features various grasses and sedges.

Special-Status Plant Species

Special-status plant species that were determined to have the potential to occur in the study area based on habitats present are listed in Table 3-5. No special-status plants were observed during 2012 and 2013 general biological and jurisdictional wetland delineation surveys.

Table 3-5 Special-status Plant Species in the Study Area

Scientific name/ common name	Federal/State/ CNPS Status*	Habitat description	Observed	Rationale for Potential to Occur
Plants				
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	--/--/1B.2	Open, grassy or rocky slopes in chaparral, cismontane woodland, and valley and foothill grassland; sometimes associated with serpentine soils. Elevation range: 90 to 1,555 meters amsl Blooming period: March to June	No	Grasslands provide potential habitat.
<i>Juncus leiospermus</i> var. <i>ahartii</i> Ahart's dwarf rush	--/--/1B.2	Valley and foothill grassland with mesic soils. Elevation range: 30 to 229 meters amsl Blooming period: March to May	No	Grassland provides potential habitat.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--/--/1B.2	Assorted, shallow, freshwater, marshes and swamps. Currently known to occur in Butte, Del Norte, Fresno, Merced, Mariposa, Orange, Placer, Sacramento, Shasta, San	No	Antelope Creek and adjacent wetlands supporting shallow water with emergent vegetation provide potential habitat. Not observed during site

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Scientific name/ common name	Federal/State/ CNPS Status*	Habitat description	Observed	Rationale for Potential to Occur
		Joaquin, Tehama, and Ventura counties. Elevation range: 0 to 650 meters amsl Blooming period: May to October		visits in 2012 and 2013.

amsl = above mean sea level

Species lists obtained for Roseville, Citrus Heights, Rio Linda, Gold Hill, Rocklin, Folsom, Lincoln, Sheridan and Pleasant Grove quadrangles from the following sources:

California Department of Fish and Game California Natural Diversity Database RareFind 4 online database accessed July 23, 2013 at <<http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>>.

California Native Plant Society Inventory of Rare and Endangered Plants (online edition, v7-07c) accessed July 23, 2013 at <<http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Home>>.

U.S. Fish and Wildlife Service list of Federal Endangered and Threatened Species accessed online on July 23, 2013 at <<http://www.fws.gov/endangered/species/us-species.html>>.

CNPS – California Native Plant Society (see definitions of CNPS rankings below); other – see definitions of other rankings below.

CNPS ratings:

1B = Rare, threatened, or endangered in California and elsewhere

1B.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

1B.2 = Fairly endangered in California (20-80% occurrences threatened)

2 = Rare, threatened, or endangered in California but more common elsewhere.

2.2 = Fairly endangered in California (20-80% occurrences threatened)

Special-Status Wildlife Species

Special-status wildlife species that were determined to have the potential to occur in the study area based on habitats present are listed in Table 3-6. Two sensitive species, western pond turtle (*Emys marmorata*) and Swainson's hawk (*Buteo swainsoni*), were observed within the study area during 2012 surveys.

Table 3-6 Special-status Wildlife Species in the Study Area

Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
Invertebrates				
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT--/--	Endemic to elderberry shrubs (<i>Sambucus</i> spp.) occurring in riparian habitat in the Sacramento and San Joaquin Valleys, riparian habitats in the Sacramento and San Joaquin Valleys, and less commonly throughout riparian forests of the Central Valley from Redding to Bakersfield (USFWS 1984).	No	Elderberry shrubs in riparian habitat provide potential habitat.**
Fish				
<i>Oncorhynchus mykiss</i> Central Valley steelhead	FT /--/--	Rivers and streams with cool, clear water and suitable substrate are used for spawning. The Central Valley distinct population includes all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable	No	Species has been observed in the watershed.

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Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
		barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, as well as two artificial propagation programs: the Coleman National Fish Hatchery, and Feather River Hatchery steelhead hatchery programs (NMFS 2006). Critical habitat for this species occurs approximately 0.4 mile downstream on Dry Creek.		
<i>Oncorhynchus tshawytscha</i> Central Valley fall/late-fall run Chinook salmon	--/SSC/--	Chinook salmon spawn in rivers and streams with cool, clear, water and suitable substrate. The ESU includes all naturally spawned populations of fall-run Chinook salmon in the Sacramento and San Joaquin River Basins and their tributaries, east of Carquinez Strait, California.	No	Although the potential is low within the Dry Creek Watershed (NMFS 2009), species has been observed in local tributaries. The upstream limit reported to be just upstream of highway 65 (Nelson 1998 as cited in NMFS website 2013) Access to the creek flow and early rain dependent. Accounted for ~10% available habitat up Dry Creek tributaries.
Amphibians				
<i>Spea hammondi</i> western spadefoot	--/SSC/--	This species occurs primarily in grasslands, but occasional populations also occur in valley-foothill hardwood woodlands. The species ranges throughout the Central Valley and adjacent foothills. In the Coast Ranges it is found from Point Conception, Santa Barbara County, south to the Mexican border (CWHR 2000).	No	No breeding habitat, however the site provides potential estivation habitat. 1994 CNDDDB occurrence within 100 feet of the study area. Presumed extant.
Reptiles				
<i>Emys marmorata</i> Western pond turtle	--/SSC/--	Permanent and intermittent waters of rivers, creeks, small lakes and ponds (including human-made stock ponds and sewage-treatment ponds, marshes, unlined irrigation canals, and reservoirs. Substantial populations can exist in water bodies in urban areas. Sometimes the species is found in brackish water (NatureServe 2013). Found at elevations from sea level to over 5,900 ft (1,800 m).	Yes	Observed within the study area.
Birds				
<i>Ammodramus savannarum</i> grasshopper sparrow	--/SSC/--	Grasslands with scattered bare ground and clumped vegetation. Prefers areas with scrubby woody vegetation and moderate leaf litter (NatureServe 2013). Summer resident from Mendocino, Trinity, and Tehama counties south, west of the Cascade-Sierra Nevada axis and southeastern deserts, to San Diego County, from sea level to 4900 ft (1494 m), as in the San Jacinto Mountains (Shuford 2008).	No	Disturbed annual grassland provides potential breeding habitat. This species is considered sensitive only when nesting.
<i>Athene cunicularia</i> Burrowing owl	--/SSC/--	Open, dry annual or perennial grasslands, deserts, and scrublands with low growing vegetation. This species nests underground in existing burrows, either artificial (e.g. drainage	No	Vacant lots with low growing vegetation provide suitable breeding habitat.

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Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
		pipes), or created by burrowing mammals, most often ground squirrels. Occurs throughout much of northeastern, central and southern California as a permanent or breeding resident.		
<i>Buteo swainsoni</i> Swainson's hawk	--/ST/--	Forages in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat. Nests on large trees in open areas. Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen Co., and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley (CWHRS 2006).	Yes	A fledgling Swainson's hawk and one adult were observed within the southern portion of the study area during 2012 surveys. Nest was not located.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	FC/SE/--	Generally riparian woodland comprised of willows and cottonwoods. Dense riparian understory is important to nesting site selection (NatureServe 2013).	No	Valley foothill riparian provides suitable nesting and foraging habitat
<i>Elanus leucurus</i> White-tailed kite	--/FP/--	Grasslands or meadows in rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes near deciduous woodlands with isolated, dense-topped trees for nesting and perching. The species occurs throughout much of central and southern California, primarily west of the Sierras (NatureServe 2013).	No	Oaks and grassland provide potential breeding habitat. This species is considered sensitive only when nesting.
<i>Progne subis</i> Purple martin	--/SSC/--	A variety of open and relatively open habitats near water or towns. Habitats like grassland, shrubland, woodland and desert. Nests in rock crevices and tree cavities (NatureServe 2013). Purple Martins are widely but locally distributed in forest and woodland areas at low to intermediate elevations throughout much of the state (Shuford 2008).	No	Disturbed annual grassland, oak woodland and nearby development provides suitable breeding habitat. This species is considered sensitive only when nesting. 2007 CNDDDB occurrence within 1000 feet of the study area. Presumed extant.

Mammals

<i>Antrozous pallidus</i> Pallid bat	--/SSC/--	Woodlands, cliff, desert, grasslands, usually near rocky outcrops and water. Less likely to be found in evergreen and mixed conifer woodlands. Usually roosts in building or rock crevices but may also roost in the bole cavities of oaks, exfoliating valley oak bark and deciduous trees in riparian areas (NatureServe 2013; WBWG 2005). In California, the species occurs throughout the state in a variety of habitats including low desert, oak woodland and coastal redwood forests, extending up to 3,000 m elevation in the Sierra Nevada (Bolster, B.C. 1998).	No	Oak woodland and disturbed annual grasslands provide potential roosting and foraging habitat.
<i>Corynorhinus townsendii</i> Townsend's big-	--/SSC/--	Woodlands, cliff, desert, grasslands, regularly occurring in forested regions and buildings. Bats hang from ceiling in near total darkness (NatureServe 2013).	No	Oak woodland and disturbed annual grasslands provide potential foraging habitat. No potential roosting habitat onsite

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Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
eared bat		In California, the species is found throughout most of the state, with populations concentrated in areas offering caves (commonly limestone or basaltic lava) or mines as roosting habitat. The species is found from sea level along the coast to 1,820 m in the Sierra Nevada (Bolster 1998).		

NMFS = National Marine Fisheries Service; ESU = evolutionary significant unit

Species lists obtained for Roseville, Citrus Heights, Rio Linda, Gold Hill, Rocklin, Folsom, Lincoln, Sheridan and Pleasant Grove quadrangles from the following sources:

California Department of Fish and Game California Natural Diversity Database RareFind 4 online database accessed July 23, 2013 at <<http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>>.

California Native Plant Society Inventory of Rare and Endangered Plants (online edition, v7-07c) accessed July 23, 2013 at <<http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Home>>.

U.S. Fish and Wildlife Service list of Federal Endangered and Threatened Species accessed online on July 23, 2013 at <<http://www.fws.gov/endangered/species/us-species.html>>.

*FE – federally endangered; FT – federally threatened; FC – federally candidate; FD – federally delisted; CH – critical habitat; SE – state endangered; ST – state threatened; SSC – state species of special concern.

**The species is evaluated in detail; federally listed non-fish species are evaluated in detail in the body of the U.S. Fish and Wildlife Service Biological Assessment; federally listed fish species are evaluated in detail in the body of the National Marine Fisheries Service Biological Assessment.

Other ratings:

- G1 to G5 = global rank that reflects the overall condition of an element throughout its global range; G5 is considered secure, and G1 is the highest risk of extinction.
- S1 to S5 = state rank that reflects the overall condition of an element in California with sub-designations (e.g. S1.1) reflecting the threat to the species (applies to S1 to S3 rankings); S5 is considered secure with no threat, and S1.1 is the highest level of vulnerability and very threatened.

Waters of the U.S., Including Wetlands, and Waters of the State

Antelope Creek is a perennial, slightly entrenched single-channel creek. Within the study area, the creek flows north to south with a floodplain that is relatively confined by adjacent land uses such as a landfill, bike path, and residential and commercial developments. The creek is culverted under the bike path near the Phase 2 (Upper Weir) project area and the banks surrounding the culverts are reinforced with rock riprap both upstream and downstream.

A U.S. Army Corps of Engineers (USACE) jurisdictional delineation was conducted within the study area to identify potential Waters of the U.S., including wetlands. Potentially jurisdictional wetlands and other Waters of the U.S. were identified within the study area. USACE wetlands occur primarily as fresh emergent marsh located in small pockets along the creek banks. USACE other Waters of the U.S. occur primarily as the open water channel within Antelope Creek, which was mapped to the ordinary high water mark. Three ephemeral tributaries to Antelope Creek occur within the floodplain and are considered potential other Waters of the U.S. All USACE potentially jurisdictional wetlands and other Waters of the U.S. are also subject to jurisdiction as Regional Water Quality Control Board (RWQCB) waters of the State. Approximately 0.38 acres of potentially jurisdictional USACE wetlands and 1.25 acres of other Waters of the U.S. occur within the study area (Table 3-7).

All USACE/RWQCB jurisdictional drainages in the study area are considered jurisdictional by the CDFW. CDFW jurisdiction is similar to that of USACE jurisdiction, but also extends to the top of the bank and encompasses riparian vegetation when present. CDFW jurisdictional areas are defined as either "Riparian" or "Unvegetated Streambed." CDFW riparian include all areas

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within the study area that are associated with the Antelope Creek streambed and banks (USACE other Waters of the U.S. and wetlands) that are vegetated by riparian species. CDFW riparian extends further out from the Creek than USACE jurisdiction because it also encompasses the associated riparian habitat which may fall outside of the ordinary high water mark and/or three-parameter wetland criteria. CDFW unvegetated streambed includes the unvegetated portions of the Creek (e.g., open water) and Tributaries A – C.

Two potentially CDFW riparian depressional features, believed to not be USACE jurisdictional Waters of the U.S. area located at the southwestern portion of the study area along the north side of the railroad tracks. The features are dominated by willows (*Salix* spp.) and oaks (*Quercus* spp.) and collect sheet flow from the railroad right-of-way and adjacent lands. No ordinary high water mark was observed connecting the depressional areas to the Creek and the features did not meet USACE criteria for hydrophytic vegetation. Approximately 6.53 acres of CDFW riparian and 0.05 acres of CDFW unvegetated streambed occurs within the study area (Table 3-7). All mapped aquatic features in the study area are shown on the habitat map (Figure 3-1).

**Table 3-7 Summary of USACE/CDFW
Existing and Impacted Jurisdictional Areas Within the Project Study Area**

Jurisdiction	Acres within the Project Study Area*	Temporary Impacts (Acres)	Permanent Impacts (Acres)
USACE Wetlands	0.38	0.01	0.08
USACE Other Waters of the U.S.	1.25	0.17	0.16
Total USACE Jurisdictional Areas	1.63	0.18	0.24
CDFW Riparian	6.53	1.26	0.39
CDFW Unvegetated Streambed	0.05	<0.00	0.01
Total CDFW Jurisdictional Areas	6.58	1.26	0.40

*Acreages are estimates of potentially jurisdictional areas mapped in the field. Jurisdictional boundaries have not been verified by USACE or CDFW.

DISCUSSION OF IMPACTS

- a) Potentially Significant Impact Unless Mitigation Incorporated - The proposed project would have potential impacts on the following species and/or their habitat: valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Central valley steelhead (*Oncorhynchus mykiss*), Central Valley fall/late-fall run Chinook salmon (*Oncorhynchus tshawytscha*), western spadefoot (*Spea hammondi*), Western pond turtle, burrowing owl (*Athene cunicularia*), Swainson's hawk, northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), purple martin (*Progne subis*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendi*), and other raptors and migratory birds. The following is a description of the proposed project's effects on these species and/or their habitat.

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Federally and/or State-listed Threatened, Endangered or Candidate Species

Valley Elderberry Longhorn Beetle

Six elderberry shrubs with at least one stem greater than one inch in diameter at ground level were observed within 100-feet of the proposed borrow site. Three of the six elderberry shrubs contained multiple stems. Although no exit holes were observed on the elderberry shrubs within the study area and the location of the shrubs makes them marginal to poor habitat for the beetle, these shrubs could be utilized by the Valley elderberry longhorn beetle (VELB) due to their proximity to known sightings. These shrubs occur on the opposite creek bank (west bank) from the borrow area and would not be directly impacted by construction of the proposed project (Figure 3-1). An additional single-stem elderberry shrub is located within the study area approximately 120 feet upstream from the Phase 2 (Upper Weir) location and 15 feet west of the existing bike path (Figure 3-1). Elderberry shrubs would not be directly impacted by implementation of the proposed project.

Indirect impacts to VELB could occur as a result of construction related disturbances in the vicinity of the shrubs. Inadvertent impacts to VELB could occur if construction equipment accidentally impacts the shrubs. Due to the elderberry shrubs being located on the opposite creek bank from the proposed borrow site, soil compaction or an increase/decrease in runoff reaching the root zone of the shrubs is not anticipated. The potential adverse impacts to the elderberry shrubs from inadvertent destruction could be significant prior to implementing mitigation. Implementation of **Mitigation Measure 1** below would reduce any potential indirect impacts to VELB and VELB habitat to a less-than-significant level.

Central valley steelhead (*Oncorhynchus mykiss*) and Central Valley fall/late-fall run Chinook salmon (*O. tshawytscha*)

Construction related effects on fish and fisheries habitat could potentially occur while construction activities and equipment are active. Construction-related increases in sediments and turbidity and the release and exposure of contaminants (e.g., fuels, lubricants) 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 the creek 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.

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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.

It is anticipated that these potential effects associated with construction of the proposed project would be only temporary in duration and would not result in adverse effects to listed species.

Both weirs are designed to maintain a natural channel slope for fish passage. Therefore no impacts to migration or local fish movement are anticipated. As a result of the proposed project, fish passage would be improved at the Upper Weir location since old, raised culverts that are currently a barrier to fish passage would be removed.

Negligible effects are expected where habitats are not significantly altered (USACE 2004). In general, disruption of the benthic and near-bottom waters and disruption of sensitive habitats and key migratory corridors are of greatest concern (USACE 2004). Clearing, grubbing, and grading associated with project construction would permanently remove 0.31 acres of riparian/ shaded riverine aquatic (SRA) habitat (0.2 acres of valley foothill riparian and 0.11 acres of riparian oak woodland) and approximately 0.15 acres of creek habitat. In addition, project construction (primarily borrow area excavation and aquatic/riparian restoration areas) would temporarily impact 1.16 acres of SRA habitat (0.98 acres of Valley foothill riparian and 0.18 acres of riparian oak woodland).

Removal of riparian vegetation could result in the loss of SRA habitat that is important to fish, including special-status species in Antelope Creek. 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 higher water velocities, and provides habitat for aquatic invertebrates. For these reasons, many fish species are attracted to SRA habitat. The loss of SRA would be considered significant prior to mitigation.

In-stream aquatic and riparian habitat restoration in the creek is a component of the proposed project (see Figure 2-6). Aquatic habitat restoration components include both channel grading for enhanced natural-channel morphology and construction of in-stream boulder weirs. The in-stream boulder weirs would increase channel complexity and hydraulic diversity and enhance spawning and rearing habitat for migratory salmonids. Restoration of habitat along and within Antelope Creek would have a beneficial long-term impact on aquatic habitat and fisheries. Implementation of **Mitigation Measure 2** would reduce potential impacts to Central Valley steelhead and Central Valley fall/late-fall run Chinook salmon to a less-than-significant level.

Swainson's Hawk

A fledgling Swainson's hawk and one adult (assumed to be a parent) were observed within the study area in 2012 during surveys. The fledgling was observed on the ground and the adult in a nearby tree. No nest was identified. The proposed project is not expected to remove any known nest trees utilized by Swainson's hawk and/or other raptors. However, the project may remove trees that could potentially be utilized by Swainson's hawk for

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nesting. Removal of a tree/structure occupied by an active Swainson's hawk nest would be a direct impact and is considered significant under CEQA. Implementation of **Mitigation Measures 3** and **4** would reduce impacts to Swainson's hawk to a less-than-significant-level.

Construction activities, including localized increases in ambient noise levels could result in the disturbance of nesting Swainson's hawks or other migratory birds if these activities occur during the breeding season (generally between February 15 and August 30) and nests are present in or adjacent to the construction area. These disturbances could cause nest abandonment and/or death of young or loss of reproductive potential at active nests located on or near the project site. Because Swainson's hawk is a state-listed species and is protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) Section 3503.5, related nesting impacts are potentially significant. With the implementation of **Mitigation Measures 3** and **4** the project is not expected to result in take of Swainson's hawks or any other raptors and migratory birds through nest disturbance of individuals potentially nesting in or adjacent to the study area.

Temporary impacts to potential foraging habitat are not expected to adversely affect Swainson's hawk or other raptors because foraging habitat is abundant elsewhere in the vicinity of the project. Implementation of **Mitigation Measure 5** would reduce potential impacts to Swainson's hawk to a less-than-significant level.

Migratory Bird Treaty Act Covered Species

Potential nesting habitat for MBTA-covered species exists within the study area. These species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to these species would be considered significant prior to mitigation.

Should migratory bird species begin nesting in the study area prior to the commencement of construction, project related disturbances could potentially result in "take" of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Implementation of **Mitigation Measure 4** would reduce potential impacts to migratory birds to a less-than-significant level.

Western Burrowing Owl

No burrowing owl burrows were observed within the study area during general 2012 and 2013 surveys. Although no active or potential burrows were observed, potential nesting and foraging habitat for burrowing owl exists within the study area. This species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to this species would be considered significant without mitigation being incorporated.

Project related disturbances could potentially result in "take" of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Construction of the proposed project would also result in the temporary and permanent loss of NNAG, which provides potential nesting and foraging habitat for burrowing owl. Non-native grassland would be reseeded and re-established in all areas that are temporarily impacted. Implementation of **Mitigation Measure 4** and **6** would reduce potential impacts to burrowing owl to a less-than-significant level.

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White-tailed Kite

No white-tailed kite nests were observed within the study area during general 2012 and 2013 surveys. Although no nests were observed, potential nesting habitat for white-tailed kite exists within the study area. This species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to this species would be considered significant prior to mitigation.

Project related disturbances could potentially result in "take" of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Construction of the proposed project would also result in the temporary and permanent loss of NNAG, valley foothill riparian, oak woodland and mature trees that provide potential nesting and foraging habitat for white-tailed kite. However, impacted riparian and oak woodland habitat would be mitigated through implementation of **Mitigation Measure 7**. Non-native grassland would be reseeded and re-established in all areas that are temporarily impacted. Implementation of **Mitigation Measure 4** would reduce potential impacts to white-tailed kite to a less-than-significant level.

Purple Martin

No purple martin nests were observed within the study area during general 2012 and 2013 surveys. A CNDDDB search of the study area and vicinity identified an occurrence of the species in 1994, approximately 1,000 feet northeast of the study area at the overpass of HWY 65 and the railroad tracks. The CNDDDB presumes the species is extant in this area. Although no nests were observed, potential nesting habitat for purple martin exists within the study area. This species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to this species would be considered significant prior to mitigation.

Project related disturbances could potentially result in "take" of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Construction of the proposed project would also result in the temporary and permanent loss of NNAG, valley foothill riparian, oak woodland and mature trees that provide potential nesting and foraging habitat for purple martin. However, impacts to riparian and oak woodland habitat would be mitigated through implementation of **Mitigation Measure 7**. Non-native grassland would be reseeded and re-established in all areas that are temporarily impacted. Implementation of **Mitigation Measure 4** would reduce potential impacts to purple martin to a less-than-significant level.

Western Spadefoot Toad and Western Pond Turtle

Implementation of the proposed project may result in direct and indirect impacts to western pond turtle (observed) and western spadefoot toad, if present. Direct impacts, such as injury or death, to these species could occur from construction equipment and other construction-related activities. Indirect impacts, such as loss of habitat, may also occur during construction activities such as de-watering, ground disturbance, and tree/vegetation removal. Direct and indirect impacts to these species would be considered significant unless mitigated. Implementation of **Mitigation Measure 8** would reduce impacts to less-than-significant.

Special-Status Bats

The project temporarily disturbs potential foraging and short-term roosting habitat for pallid bat and potential foraging habitat for Townsend's long-eared bat. The temporary duration and small size of the proposed disturbance relative to the available habitat for these wide-

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ranging species makes the temporary disturbance of potentially suitable habitat less-than-significant.

- b) Potentially Significant Impact Unless Mitigation Incorporated - Valley foothill riparian, a CDFW S3-ranked sensitive habitat, occurs throughout the study area and within the project impact areas. Direct permanent impacts (clearing and grubbing) to valley foothill riparian are unavoidable given the nature of the proposed project. Temporary indirect impacts such as sedimentation, dust, and soil erosion may occur to sensitive habitat located adjacent to construction activities. Impacts to riparian habitat (valley foothill riparian and riparian oak woodland) or other sensitive natural communities are considered significant until mitigated. Implementation of **Mitigation Measures 2** and **5** would reduce impacts to riparian and other sensitive natural communities to a less-than-significant level.

SRA is considered by CDFW and NMFS as sensitive habitat for fish species as it provides structure and food. As discussed above, project construction (primarily borrow area excavation and aquatic/riparian restoration areas) would permanently impact 0.31 acres and temporarily impact 1.16 acres of SRA habitat. In addition, temporary indirect impacts such as sedimentation, dust, and soil erosion may occur to SRA located adjacent to construction activities. Implementation of **Mitigation Measures 5** and **9** would reduce impacts to riparian and other sensitive natural communities to a less-than-significant level.

Construction of the proposed Phase 1 and Phase 2 weirs and associated aquatic and riparian restoration would result in temporary impacts of 1.26 acres and permanent impacts of 0.39 acres of CDFW riparian and temporary impacts of <0.00 (0.003) acres and permanent impacts of 0.01 acres of CDFW unvegetated streambed. In addition, temporary indirect impacts such as sedimentation, dust, and soil erosion, may occur to CDFW jurisdictional areas located adjacent to construction activities. The District would obtain and be required to adhere to the project Streambed Alteration Agreement administered through CFGC 1600 and issued by the CDFW. Impacts to CDFW jurisdictional streambed and riparian areas are considered significant prior to mitigation. Implementation of **Mitigation Measures 5** and **9** would reduce impacts to CDFW jurisdictional streambed and riparian areas to a less-than-significant level.

- c) Potentially Significant Impact Unless Mitigation Incorporated - USACE potential wetlands and other Waters of the United States occur within the project impact areas. Impacts to these potentially jurisdictional features would be unavoidable. Specifically, the project would result in 0.08 acres of permanent impacts and 0.01 acres of temporary impacts to USACE potentially jurisdictional wetlands and 0.16 acres of permanent impacts and 0.17 acres of temporary impacts to USACE potential other Waters of the United States. In addition, there is the potential for USACE wetlands and other Waters of the U.S. to be indirectly impacted by project construction. Indirect impacts to these areas would mainly come in the form of indirect water quality impacts resulting from various construction activities. Pollutants of concern for jurisdictional areas include increases in sedimentation and the discharge of hazardous materials or debris during construction activities.

Erosion and sedimentation and hazardous materials spill or leakage from construction vehicles is also considered a potential impact to jurisdictional areas. The use of petroleum products (e.g., fuels, oils, and lubricants) and erosion of cleared land during construction could potentially contaminate surface water. Section 401 of the Clean Water Act requires water quality certification from the RWQCB when a project requires a Clean Water Act

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Section 404 permit to regulate the discharge of dredged and fill material into Waters of the United States, including wetlands from the USACE. Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the NPDES permit program for the discharge of any pollutant into Waters of the United States. As described further in Section 3.6 Geology and Soils, the District would submit a Notice of Intent (NOI) to the RWQCB to obtain coverage under the NPDES General Permit, and would prepare a stormwater pollution prevention plan (SWPPP) with BMPs to reduce impacts from erosion and sedimentation during grading. The District would also obtain and be required to adhere to the project Section 401 water quality certification issued by the RWQCB (Central Valley Region) and the project Section 404 permit issued by the USACE. Impacts to federally protected wetlands are considered significant prior to mitigation. Implementation of **Mitigation Measure 9** described above would further reduce any potential impacts to USACE jurisdictional areas to a less-than-significant level.

- d) Potentially Significant Impact Unless Mitigation Incorporated - Construction of the proposed project could temporarily disrupt the movement of fish species in Antelope Creek; however, construction of the new flood control elements (Upper and Lower Weirs) would benefit fish in the long-term.

Although anadromous salmonids (i.e., Chinook salmon and steelhead) are highly migratory and would be capable of moving freely throughout Antelope Creek, a sudden localized increase in turbidity could affect normal behaviors that are essential to growth and survival, such as feeding, sheltering, and migrating (NMFS 2003). Behavioral avoidance of turbid waters may be one of the most important effects of suspended sediments (Birtwell et al. 1984; Devore et al. 1980; Scannell 1988). Additional turbidity-related effects associated with behavioral alteration include disruption of feeding behaviors, which increases the likelihood that individual fish would face increase competition for food and space, and experience reduced growth rates, or possibly weight loss (NMFS 2003).

During construction of in-water project features, flow of Antelope Creek would be partially blocked with the partial installation of a cofferdam. The proposed project would maintain flow in a side channel. The cofferdam could restrict upstream and downstream movement of native fish, including special-status species; however, the potential for entrainment and stranding is low because an in-water construction work window of June 15th through October 15th (special-status species not present) would be implemented. Furthermore, the upstream and downstream slopes of the creek would be protected with erosion control mat and riprap, reducing the likelihood of erosion (i.e., increase in turbidity) during construction, as well as post construction.

The existing culverts at the Phase 2 (Upper Weir) location impede fish passage. The proposed Phase 1 and Phase 2 Weirs would include culvert design options that provide either an open natural streambed bottom or embedded culverts, allowing the low flow channel to meet the key objectives of the proposed projects and conform to culvert design criteria and stream crossing guidelines of the CDFW and NMFS. As stated in Chapter 2, the Phase 2 (Upper Weir) would provide a significant benefit to fish by removing an existing fish passage barrier and allowing fish to migrate during low flows. Implementation of **Mitigation Measure 2** would reduce potential impacts to fish species to a less-than-significant level.

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Implementation of the proposed project would not remove, degrade or otherwise interfere substantially with the structure or function of the marginal quality wildlife movement corridor in the study area.

- e) Potentially Significant Impact Unless Mitigation Incorporated - Construction of the Phase 1 (Lower Weir) and Phase 2 (Upper Weir) would result in the removal of approximately 10-20 oak trees. Oak trees are considered sensitive by the City of Roseville and are governed by the City's Tree Preservation Ordinance (Chapter 19.66 of the Zoning Ordinance). Per the City of Roseville Tree Preservation Ordinance a native oak tree is any tree of the genus *Quercus* and species *lobata* (valley oak), *douglasii* (blue oak), *wislizenii* (interior live oak) or hybrids thereof. The project is required to comply with the City's Tree Preservation Ordinance. Consistent with the City's Tree Preservation Ordinance, the District can mitigate for oak trees that would be removed during construction of the proposed project either through payment of in lieu fees, site plantings, or a combination of both. The District intends to mitigate for impacts to oak trees through on-site planting. Implementation of **Mitigation Measure 7** would reduce potential impacts to oak trees to a less-than-significant level. In addition, the project includes restoration elements (see Chapter 2) that are consistent with the City's Tree Preservation Ordinance, and are intended to minimize impacts of encroachment.
- f) No Impact - The project would not conflict with any conservation plans because there are no adopted plans that apply to the study area; therefore, no impact would occur.

MITIGATION MEASURES

Mitigation Measure 1

Implementation of Avoidance and Minimization Measures for Elderberry Shrubs

- a) A buffer zone of 100-feet or greater shall be established and maintained around elderberry shrubs within the project impact areas, as feasible. Complete avoidance may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level.
- b) The following mitigation measures shall be implemented for construction operations in the vicinity of any elderberry shrubs that would not be removed.
- All areas to be avoided during construction activities, specifically the 100-foot buffer zone around elderberry shrubs, shall be fenced and flagged. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, a minimum setback of at least 20 feet from the dripline of each elderberry shrub shall be provided in most cases. In some cases, construction activity may be required within 20 feet of a shrub. In these cases, fencing shall be placed at the greatest possible distance from the shrubs.
 - A worker awareness training program for construction personnel shall be conducted by a qualified biologist prior to beginning construction activities. The program shall inform all construction personnel about the life history and status of the beetle, requirements to avoid damaging the elderberry plants, and the possible penalties for not complying with these requirements. Written documentation of the training shall be submitted to USFWS within 30 days of its completion.

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- Signs shall be erected every 50 feet along the edge of avoidance areas with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs shall be clearly readable from a distance of 20 feet, and shall be maintained for the duration of construction.
- Pre-construction and post-construction surveys shall be done of the elderberry shrubs in the project area. Pre-construction surveys shall document compliance with mitigation measures. The post-construction survey shall confirm that there was no additional damage to any of the elderberry shrubs than as described in this document.
- Temporary construction impacts within the buffer area (area within 100 feet of elderberry shrubs) shall be restored. If any portion of the buffer area is temporarily disturbed during construction, it shall be revegetated with native plants and erosion control shall be provided.
- Buffer areas shall continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal shall be implemented as appropriate.
- No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level. All drainage water during and following construction shall be diverted away from the elderberry shrubs.
- A written description of how the buffer areas are to be restored, protected, and maintained after construction is completed shall be provided to USFWS.
- Mowing of grass can occur from July through April to reduce fire hazard, however, no mowing should occur within five feet of elderberry shrub stems. Mowing shall be done in a manner that avoids damaging shrubs.
- Dirt roadways and other areas of disturbed bare ground within 100 feet of elderberry shrubs shall be watered at least twice a day, when in use, to minimize dust emissions.

Mitigation Measure 2

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Special-Status Fish Species

The following mitigation measures would reduce impacts to Central Valley steelhead and Central Valley fall/late-fall run Chinook salmon to less-than-significant:

- a) Work shall be restricted to the in-water work window of June 15th through October 15th, when special-status fish species are not present within the creek. In-channel activities (i.e., grading activities associated with the proposed project) shall be conducted "in the dry".

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- b) The District's contractor shall prepare and implement a fish rescue plan during any dewatering activities. The plan shall include utilizing a qualified biologist to capture, remove, and relocate all fishes utilizing areas to be dewatered. The plan shall be provided to NMFS and CDFW for approval prior to the onset of construction activities.

Mitigation Measure 3

Pre-construction Surveys for Swainson's Hawk and Establishment of Buffers if Necessary

- a) In winter/spring of the year that construction is scheduled to commence, Swainson's hawk nesting surveys shall be conducted by a qualified biologist within the study area and accessible areas outside the study area within 0.25 mile of proposed construction activities according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee, May 31, 2000). A report shall be submitted to CDFW prior to construction reporting the results of the pre-construction surveys.
- b) If no active Swainson's hawk nests are identified in or within 0.25 mile of proposed construction activities, then no further mitigation for nesting Swainson's hawks is necessary. If an active Swainson's hawk nest(s) is identified within 0.25 mile of proposed construction activities, impacts to active nests shall be avoided by establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers shall be determined by a qualified biologist in conjunction with CDFW and may vary, depending on the nest location, nest stage, and construction activity. No project activity shall commence within the buffer area until the biologist confirms that the nest is no longer active. Monitoring shall be conducted to confirm project activity is not resulting in detectable adverse effects to active nests. A post-construction report shall be submitted to CDFW documenting the results of Swainson's hawk nest monitoring within 30 days of completion of construction activities.

Mitigation Measure 4

Pre-construction Surveys for Special-Status Bird Species and MBTA-Covered Migratory Birds

- a) If construction begins during the typical avian breeding season (February 15 to September 15), pre-construction surveys shall be conducted by a qualified biologist within two weeks prior to commencement of construction to determine presence/absence of raptor and migratory bird nests. Surveys shall be conducted in the study area and in accessible areas outside of the study area that fall within 500 feet of construction activities. A report shall be submitted to CDFW prior to construction reporting the results of the preconstruction surveys. If no nests are found during the survey, no further mitigation shall be necessary. If nests are found, then the following mitigation shall be implemented.
- b) Impacts to active nests shall be avoided by establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers shall be determined by a qualified biologist in conjunction with CDFW and may vary, depending on the nest location, nest stage, and construction activity. No project activity shall commence within the buffer area until the biologist confirms that the

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nest is no longer active. Monitoring shall be conducted to confirm project activity is not resulting in detectable adverse effects to active nests.

Mitigation Measure 5

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Special-Status Species and Sensitive Habitats

- a) The project limits shall be clearly demarcated. Erosion control fencing shall be placed at the edges of construction where the construction activities are upslope of aquatic habitats to prevent washing of sediments into these features. All fencing shall be installed prior to any construction activities beginning and shall be maintained throughout the construction period.
- b) During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies shall be restricted to the designated construction staging areas. To eliminate an attraction to predators, all food-related trash items, such as wrappers, cans, bottles, and food scraps, shall be disposed of in closed containers. Revegetation shall occur on all areas temporarily disturbed by construction activities.
- c) All temporary impact areas shall be restored to pre-project contour and revegetated. A revegetation plan shall be developed to address all temporarily impacted native habitat and NNAG.

Mitigation Measure 6

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Burrowing Owl

- a) The District shall conduct pre-construction surveys for burrowing owl of suitable habitat within the study area and a 500-foot buffer no more than 30 days and no less than 14 days prior to initiating ground disturbance activities. A report shall be submitted to CDFW prior to construction reporting the results of the pre-construction surveys. If no burrowing owls are found during any of the surveys, no further mitigation shall be necessary.
- b) If burrowing owl is identified within the 500-foot buffer of the study area during the non-breeding season (September 1 through January 31), then an appropriate buffer shall be established by the biological monitor in accordance with the *2012 Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Construction within the buffer shall be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented.
- c) If burrowing owl is identified during the breeding season (February 1 through August 31) then an appropriate buffer shall be established by the biological monitor in accordance with the *2012 Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Construction within the buffer shall be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged and a CDFW-approved exclusion plan has been implemented. In addition to avoidance of the occupied habitat, off-site mitigation shall be provided as described below:
 - i. Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- ii. Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.
- iii. Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.

Mitigation Measure 7

Implementation of City of Roseville Tree Preservation Ordinance

To mitigate for impacts to mature oak trees in accordance with the City of Roseville Tree Preservation Ordinance, on-site mitigation is proposed along with oak woodland restoration, which is included as part of the project. On-site mitigation plantings would be located within the proposed oak woodland restoration area identified on Figure 2-6. Mitigation plantings would be maintained and monitored in the same manner as the proposed restoration plantings described in Chapter 2.

A protected oak tree per the City of Roseville ordinance is a native oak tree equal to or greater than six inches diameter at breast height (DBH) measured as a total of a single trunk or multiple trunks. The City may condition any tree permit involving removal of a protected tree upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the DBH of the removed tree(s) where a 15 gallon tree shall replace one inch DBH of the removed tree; a 24-inch box tree shall replace two inches, and a 36-inch box tree shall replace three inches. The replacement trees shall have a combined diameter equivalent not less than the total diameter of the tree(s) removed. A minimum of 50 percent of the replacement requirement shall be met by native oaks. Up to 50 percent may be met by non-native species.

Mitigation Measure 8

Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to State-Sensitive Species Western Pond Turtle and Western Spadefoot.

The following mitigation would reduce impacts to western pond turtle and western spadefoot.

- a) Pre-construction surveys for western spadefoot toad shall be conducted by a qualified biologist during the rainy season prior to the initiation of construction activities. If western spadefoot toad is observed in the vicinity of the study area then exclusionary fence shall be constructed around potential spadefoot toad estivation habitat within the project impact areas. Any toads observed within the project impact areas would be relocated outside of the project impact areas. The exclusionary fence shall be maintained in good condition from installation until construction completion.
- b) A qualified biologist shall be present during initial construction activities within the creek and/or adjacent wetlands and during any dewatering activities. If any western pond turtle are observed in the construction area, including any dewatered areas, they shall be captured and relocated to an appropriate location up or downstream of the construction area. The qualified biologist shall have the authority to stop construction until the western pond turtle can be safely relocated.

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- c) Construction personnel would participate in a worker environmental awareness program. A qualified biologist would inform all construction personnel about the life history of western pond turtle and western spadefoot, their potential presence in the project area, and explain the state laws pertaining to protecting these species and their habitat.

Mitigation Measure 9

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

As part of the Section 404 and Section 1600 permitting processes, if the USACE (and/or CDFW) requires compensatory mitigation, a draft wetland/riparian mitigation and monitoring plan (MMP) shall be developed. The MMP shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230).

At a minimum, mitigation for impacts to Federal and state jurisdictional areas shall occur at the following ratios:

1. USACE Wetland and other Waters
 - Permanent: 2:1 through establishment, enhancement and/or restoration
 - Temporary: restoration (in-kind)
2. CDFW Riparian and streambed
 - Permanent: 2:1 through establishment, enhancement and/or restoration
 - Temporary: restoration (in-kind)

CONCLUSION

Implementation of **Mitigation Measures 1** through **9** would further ensure that the proposed project would not significantly impact biological resources in the project area.

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

Prehistoric Setting

The Sacramento Valley has a long and rich history. The Clovis culture, which is the earliest well-documented cultural expression in the Americas, occurred between approximately 13,500 to 13,000 years ago. The cultural pattern is distinguished by “fluted” projectile points, percussion blades, and other distinctive artifacts. Very few Clovis sites have been identified in North America. By the early Holocene, evidence from numerous archaeological sites throughout the state show that California was fully explored by this time and supported a significant population. By 4000 years before present (BP), large sedentary populations had emerged throughout the Sacramento Valley, especially along major water sources (Leach-Palm and Meyer 2012: 20). Shell and obsidian objects recovered from sites in this area indicate the participation of Delta groups in inter-regional exchange networks with foothill and coastal populations (Moratto 2004: 203, 206).

By 2000 BP, the lack of discernible relations between archaeological complexes and the known material cultures of ethnographic Californian populations end. In the lower Sacramento Valley, the Windmill Pattern is gradually replaced by the Berkeley Pattern, likely due to the movement of ancestral Miwok populations from the Bay Area. Important subsistence changes take place as the acorn emerges as a clearly important staple; a process marked by a proliferation of the use of bedrock mortars. Between 1100 and 700 BP, the bow and arrow appears as the preeminent weapon and was already being used by Sacramento Valley populations prior to the widespread adoption of the technology throughout California. The Berkeley Pattern was followed by the Augustine Pattern in the Central Valley, and included elements such as flexed burials, cremation, mortar and pestle technology, and a monetary system based on clam shell disc beads (Moratto 2004: 211-212).

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Ethnographic Setting

The Project is located within an area traditionally occupied by the Nisenan, also referred to as the Southern Maidu, the southernmost branch of the Maidu-Konkow group occupying the lower reaches of the Yuba, Feather, and American Rivers and extending as far west as the Sacramento River (Eargle 2008; Kroeber 2006). The Nisenan were year-round hunters and gatherers with access to varied biotic zones distributed across the western slope of the Sierra Nevada (Hull 2007:180). Hunting was done communally, by conducting drives and burnings, with the best marksman doing the kill. Deer, antelope, elk, black bear, wildcats, mountain lions, and other small game were caught and either roasted, baked, or dried. Gathering was also a communal activity, organized around seasonal ripening of specific resources including roots, wild onion, wild sweet potato, Indian potato, and a variety of nuts. Acorn was a major staple of the Nisenan diet; these were shelled, ground into flour, and stored for year-round use. Some fishing holes or territories for deer drives were utilized by certain grouped families; however, individual hunters crossed family and political boundaries with impunity (Kroeber 2006; Wilson and Towne 1978).

The Nisenan used many tools including stone knives, arrow and spear points, scrapers, pestles, and mortars. Weirs, nets, harpoons, traps, and gorgehooks were used for fishing from tule balsas and log canoes. Baskets were woven from willow and redbud and were used for storage, cooking, and processing (Hull 2007; Kroeber 2006; Wilson and Towne 1978). Materials for most tools and ornaments were obtained locally. However, a network of trails crossed Nisenan territory allowing for access and trade with other areas. The same trade networks moved north and south along the west face of the Sierra and along the crest of the range, allowing access to non-local goods to supplement local resources.

Historical Setting

Early Spanish explorers and missionaries were the first Europeans to reach northern California in the early 1800s. In 1808, Lieutenant Gabriel Moraga first explored the Sacramento Valley, but Sacramento was not settled until the late 1830s and early 1840s, when Captain John Sutter built a trading post and stockade on 76 acres obtained through land grants from the Mexican government (Burns 1999:18-29; Hoover et al. 1966:298-299). Sutter's Fort brought an increase of trappers, hunters, and pioneers to the area. It provided shelter, goods, and work to thousands of new settlers in the Sacramento Valley. During its heyday, California became a territory of the United States as a result of the Mexican War (1847-1848). In 1848, gold was discovered by John Marshall at Sutter's Mill in Coloma and brought a large influx of settlers into the Sacramento region. As the population steadily increased, many settlers found raising grain, livestock, and produce to sell to the thousands of miners heading to the gold fields a lucrative endeavor (Burns 1999:18-29; Hoover et al. 1966:298-299). A stage stop of the Monterey Trail, which was about 15 miles south of Sutter's Fort, encouraged settling in the area and proved to be profitable for many settlers. The Sacramento Valley served the needs of gold miners and the growing agricultural business. Livestock, vineyards, orchards, and row crops were established in the area known for its rich soil and water resources (Pinkerton 1998).

Gold miners returning from the mines established an agricultural industry in the Sacramento Valley, including Roseville, in the late 1850's. Industrial growth began in the mid to late 1860's following the completion of a Central Pacific Railroad line through the town. In 1906, the UPRR, which had purchased the Central Pacific Railroad's operations, selected Roseville as the site of a large switching yard. The construction of the switching yard led to an immediate economic boom and a corresponding increase in population. In 1909 Roseville was incorporated as a city (City of Roseville, 2012). Today, Roseville is largely urban and developed, and with a population of over 118,000, it is the largest city in Placer County (US Census Bureau 2012).

Consultation

HDR Engineering, Inc. (HDR) contacted the Native American Heritage Commission (NAHC) on June 18, 2012 requesting a search of their Sacred Lands File and a list of groups or individuals who may have knowledge of the project study area. On July 11, 2012, the NAHC responded that there is no known presence of Native American sacred sites in its files for the project study area. The NAHC also provided a list of tribes and individual contacts who may be interested in the proposed project. HDR contacted the listed Native American tribes and individual tribal members provided on the list and received one response from the United Auburn Indian Community (UAIC) of the Auburn Rancheria requesting a site visit of the project study area. HDR attended the site visit with the UAIC tribal representatives on August 28, 2012. No responses were received from the other tribes and individuals contacted regarding the proposed project.

Records Search

A record search of the project study area was conducted in June 2012 at the North Central Information Center (NCIC) of the California Historical Records Information System to identify known resources in the Project area. The record search indicates that there have been sixteen cultural resources studies conducted in the vicinity of the proposed project and within a quarter-mile radius. Three of the studies were conducted within the project study area. Two previously recorded cultural resources, P-31-1435 and P-31-1443, were also identified within the project study area. P-31-1435 is a bedrock milling site with one mortar cup that was originally recorded as an isolate. P-31-1443/CA-PLA-1116 is a prehistoric lithic scatter with possible midden. Archaeological site records indicate that two additional sites, P-34-764 and P-34-1969 are within a quarter-mile radius of the project study area. Other background research included reviews of reports and records relevant to the project study area, and historic period maps.

Additionally, the UAIC Tribal Preservation Officer noted that their records indicate that the village of Pitsokut was located within the project study area, though the presence or location of such a village has never been verified. HDR visited the UAIC Tribal Office on September 5, 2012 to review records held in their archives. No documentation or other information could be found in the UAIC records regarding the village of Pitsokut.

Field Survey and Results

On August 27-28, 2012, HDR conducted a pedestrian archaeological survey of the project study area in an effort to identify historical resources. All cultural resources discovered within or immediately adjacent to the survey area were documented according to current professional standards. Of the two previously recorded sites, the only evidence of site P-31-1443 was a single basalt handstone fragment identified at the location previously noted for the site. No other artifacts were observed at the site due to poor surface visibility. P-31-1435 could not be located as the site appears to be underwater in an artificially created wetland area. One new site was identified and recorded during the survey, P-31-5578; the remains of a roughly L-shaped rock alignment which is one course high and 33 feet long by 10 feet wide. No other artifacts or features were present at site P-31-5578.

Neither sites P-31-1435 or P-31-1443 have been formally evaluated for CRHR eligibility and the two prehistoric sites would require additional testing to determine eligibility. For the purposes of the proposed project, both sites would be treated as if they are eligible for listing on the CRHR. Site P-31-5578 was found to be ineligible for the CRHR as it did not meet any of the criteria for a historical resource (Behrend and Ramsey Ford 2013).

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

DISCUSSION OF IMPACTS

- a) Potentially Significant Unless Mitigation Incorporated - Two potential historical resources eligible for listing on the CRHR were identified north of the project study area. No other resources were identified within the project study area. It is reasonable to conclude that the proposed project should not result in the alteration of or adverse physical or aesthetic effect to any other significant historical resources. However, it is possible that previously unknown historical resources could be discovered during grading and excavation work associated with new construction. This is considered a potentially significant impact. Implementation of **Mitigation Measure 10** would reduce this impact to a less-than-significant level.
- b) Potentially Significant Unless Mitigation Incorporated - Although the project study area has been subjected to a systematic surface investigation, it is possible that buried or concealed archaeological resources could be present and may be detected during ground-disturbing and other construction activities. This is considered a potentially significant impact. Implementation of **Mitigation Measure 10** described below would reduce this impact to a less-than-significant level.
- c) Potentially Significant Unless Mitigation Incorporated - There are no known significant paleontological sites or deposits within the area of proposed disturbance, based on the records search and field study, however, the possibility of encountering paleontological resources cannot be entirely discounted. This is considered a potentially significant impact. Implementation of **Mitigation Measure 10** described below would reduce this impact to a less-than-significant level.
- d) Potentially Significant Unless Mitigation Incorporated - There are no known human burials or remains within the area of proposed disturbance, however, the remote possibility for encountering human remains during construction of the Project does exist. This is considered a potentially significant impact. Implementation of **Mitigation Measure 11** would reduce this impact to a less-than-significant level.

MITIGATION MEASURES

Mitigation Measure 10

Protection of Prehistoric or Historic Subsurface Cultural Resources

In the event that any prehistoric or historic subsurface cultural resources including unusual amounts or fragments of bone are discovered during construction-related grading activities, all work within 50 feet of the resource shall be halted and the District shall consult with a qualified cultural resources specialist to assess the significance of the find. If any resources found on the site are determined to be significant, the District and the consulting cultural resources specialist shall determine the appropriate course of action. A report shall be prepared by a qualified cultural resources specialist and filed with the Office of Historic Preservation and/or the North Central Information Center on the appropriate forms documenting the importance of all significant cultural resources found at the site. This mitigation measure shall be noted on all construction plans and specifications prepared for the proposed project.

Mitigation Measure 11 Protection of Human Remains

In accordance with the California Health and Safety Code (CHSC), Section 7050.5, and the PRC 5097.98, regarding the discovery of human remains, if any such finds are encountered during construction of the proposed project, all work within the vicinity of the find shall cease immediately and a 50 foot-wide buffer surrounding the discovery shall be established around it. The District, or its agent, shall be immediately notified. The County coroner shall be contacted immediately to examine and evaluate the find. If the coroner determines that the remains are not recent and are of Native American descent, the coroner shall contact the NAHC in accordance with CHSC Section 7050.5, and PRC 5097.98. The District shall work with the most likely descendent, as determined by the NAHC, on an appropriate means of treating the remains. All project personnel should be instructed that any human remains encountered should always be treated with sensitivity and respect, and their discovery and location kept confidential. Construction personnel should be briefed prior to construction activities regarding procedures to follow in the event buried human remains are encountered.

CONCLUSION

With implementation of **Mitigation Measures 10** and **11**, the proposed project would not result in significant impacts to cultural resources.

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3.6 GEOLOGY AND SOILS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving: | | | | |
| i) 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? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

Placer County is located in the Great Valley Geomorphic Province of California, bordered on the west by the Coast Ranges and the east by the Sierra Nevada. The Great Valley is an alluvial plain about 50 miles wide and 400 miles long in the central part of the state.

According to the City of Roseville General Plan, the State Division of Mines and Geology classifies the City as a low severity earthquake zone. Numerous faults have been identified within 100 kilometers (~60 miles) of the Sacramento area, and as such, the City could be subject to potential seismic activity. However, there are no known active faults located within Placer County. The City of Roseville General Plan also indicates that no determination has been made

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

that liquefaction exists in the Roseville area but to date liquefaction has not been a significant problem within the City. The City of Roseville is generally located on level terrain; however, some significant slope areas occur along creeks and ravine areas, such as the project study area.

Soils within the Dry Creek watershed are variable, but generally contain either granitic or volcanic parent material, and may include a clay pan, or other consolidated layer impeding water permeability.

DISCUSSION OF IMPACTS

- a) No Impact - The project study area is not located on an Alquist-Priolo Earthquake Fault Zone, and is classified as a low severity earthquake zone according to the California Department of Mines and Geology. No active faults are located within the County. Based on the City's geographic location, soil conditions, and surface terrain, risk from landslides, subsidence, or other geologic hazards resulting from seismic activity are considered low. Construction activities for the proposed project would be temporary and short-term, and would not expose people or structures to any increase in existing potential for substantial effects from earthquake, seismic ground shaking, seismic ground failure, or landslides. Therefore, no impact would occur with project implementation.
- b) Less-than-Significant Impact - There is the potential for grading and construction activities associated with the proposed project to result in soil erosion. In accordance with National Pollutant Discharge Elimination System (NPDES) regulations, to minimize the potential effects of construction runoff on receiving water quality, the state requires that all municipal, industrial and commercial facilities that discharge wastewater or stormwater directly from a point source into a water of the United States must obtain a NPDES permit. In order to obtain coverage under the General Permit, a Notice of Intent (NOI) is required to be filed with the RWQCB. In conjunction with submittal of a NOI to the RWQCB, a SWPPP is required to be prepared and retained on site during construction, and must contain Best Management Practices (BMPs) to reduce impacts from erosion and sedimentation during grading. The SWPPP shall conform to all standards adopted by the District and the City of Roseville. BMPs implemented as part of the SWPPP may include the following procedures:
- 1) restricting grading to the dry season;
 - 2) protecting all finished graded slopes from erosion using such techniques as erosion control matting and hydroseeding;
 - 3) protecting downstream properties and receiving waters from sedimentation;
 - 4) use of silt fencing and straw wattles to retain sediment on the project site;
 - 5) use of temporary water conveyance and water diversion structures to eliminate runoff to the fill slopes; and
 - 6) any other suitable measures outlined in an approved Erosion Control Manual.

The erosion control measures outlined above would be implemented during construction of the proposed project where required and would reduce soil erosion impacts to less-than-significant.

- c) Less-than-Significant Impact - Direct impacts related to the potential for landslides, liquefaction, and soil erosion are addressed in Items (a) and (b) above. Construction activities for the proposed project would be temporary and short-term, and are not likely to result in substantial soil erosion or require deep excavations. Construction activities are not

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anticipated to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, impacts would be less-than-significant.

- d) No Impact - No structures for human occupancy would be constructed as part of the proposed project. Because no new risks to life or property would be created, the project would have no effect related to expansive or unstable soils. Therefore, no impact would occur with project implementation.
- e) No Impact - Soils at the project site are adequate to support the proposed project and associated equipment. No alternative wastewater disposal systems are proposed as part of the project. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in the exposure of people or structures to potential substantial adverse effects related to unstable geologic units or soils. The proposed project would comply with NPDES regulations and would implement a SWPPP with BMPs. Therefore, there are no significant adverse geologic effects associated with project implementation.

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3.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

ENVIRONMENTAL SETTING

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization’s Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHGs related to human activity that include CO₂, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill (AB) 1493, California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the state level. AB 1493 required CARB to develop and implement regulations to reduce automobile and light truck GHG emissions.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California’s GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of AB 32, the Global Warming Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32. AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

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In October 2008, CARB published its Climate Change AB 32 Scoping Plan, which is the state's plan to achieve GHG reductions in California required by AB 32. The scoping plan was approved by CARB on December 11, 2008.

Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

CEQA requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; reduce snowpack, leading to less overall water storage in the Sierra Nevada; affect rainfall, leading to changes in water supply, increased frequency and severity of droughts, and increased wildfire risk; and affect habitat and agricultural land, leading to adverse effects on biological and agricultural resources.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. When the adverse change is substantial and the project's contribution to the impact is considerable, the cumulative impact would be significant. The cumulative project list for this issue (global climate change) comprises anthropogenic (i.e., human-made) GHG emission sources across the entire planet. No project alone would contribute to a noticeable incremental change to the global climate. However, AB 32 and executive order S-3-05 have established a statewide context for GHG emissions, and an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that the cumulative impacts of GHGs, even additions that are relatively small on a global basis, need to be considered. Because of the cumulative nature of the climate change problem, even relatively small contributions may be potentially considerable (and therefore, significant).

Section 15064.4 of the recently adopted CEQA Guidelines states:

" (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- 1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or,
- 2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

- 1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- 2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- 3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project (CEQA 2009).

At the time of the analysis conducted for the proposed project, neither the state nor the PCAPCD have identified a significance threshold for GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. Therefore, to make the determination whether the incremental impacts of the proposed project are "cumulatively considerable" the incremental impacts of the proposed project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

According to the City of Roseville General Plan, "at the local level, the goals, policies and implementation measures in Roseville's General Plan constitute an incremental step, in coordination with efforts on a larger scale, from state to international efforts, which will contribute to counteracting the effects of Climate Change, and reduce greenhouse gas emissions."

DISCUSSION OF IMPACTS

- a), b) Less-than-Significant Impact - GHG emissions generated by the proposed project would be primarily in the form of CO₂ from construction equipment exhaust. Although emissions of other GHGs such as methane and nitrous oxide are important with respect to global climate change, the emissions levels of these GHGs for the sources associated with project construction are nominal compared with CO₂ emissions, even considering their higher global warming potential.

Emissions factors and calculation methods for estimating GHG emissions associated with infrastructure projects have not been formally adopted for use by the state or the PCAPCD. There would be no significant increase in the amount of electricity, water, or operational GHG emissions compared to current conditions as a result of implementation of the proposed project. The proposed project anticipates a construction period of approximately four months for Phase I and an additional four months for future Phase 2. During this time, a small net increase in GHG emissions would result from various construction activities. Construction-related GHG emissions would be associated with engine exhaust from heavy-duty construction equipment, transport trucks hauling materials, and worker commute trips. Although any increase in GHG emissions would add to the quantity of emissions that contribute to global climate change, it is noteworthy that emissions associated with construction of the proposed project would occur over a finite period of time. As stated in Chapter 2 Project Description, the construction labor force is estimated to average 10-15 workers over each phase of the construction period. Construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. After completion of construction, all construction emissions would cease.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Therefore, the proposed project would have a negligible contribution towards statewide GHG inventories.

Because construction-related emissions would be temporary and finite, and below the minimum standard for reporting requirements under AB 32, the proposed project's GHG emissions would have a negligible cumulative contribution towards statewide GHG emissions and are not determined to be a considerable contribution to the cumulative global impact. In addition, the proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Thus, project-related impacts as a result of GHG emissions would be less-than-significant.

CONCLUSION

The proposed project would not significantly affect regional GHGs as a result of project construction due to the extremely small amount of GHG emissions associated with the project construction activities.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.8 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

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According to Cal/EPA, the provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with CEQA. The Cortese list, which includes the resources listed below, was reviewed for references to the proposed project site:

- List of Hazardous Waste and Substances sites from the DTSC EnviroStor database;
- List of Leaking Underground Storage Tank Sites from the SWRCB GeoTracker database;
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from SWRCB; and
- List of hazardous waste facilities subject to corrective action identified by DTSC.

In order to further assess the hazards and hazardous materials risks associated with the project study area, HDR reviewed reasonably ascertainable and reviewable regulatory information published by Federal, state, local, tribal, health, and/or environmental agencies pertaining to the project area; reviewed historical data sources for the project area, including aerial photographs, topographic maps, fire insurance maps, city directories, and other readily available development data; and conducted an area reconnaissance with a focus on indications of hazardous substances, petroleum products, wells, storage tanks, solid waste disposal pits and sumps, and utilities.

Environmental Data Resources, Inc. (EDR), was contracted by HDR to complete the database search of records for the project study area. The databases searched included Federal, state, local, and tribal databases, and the project study area does not contain any sites listed in the searched databases. However, adjacent to the project study area are two closed landfills: the Roseville Sanitary Landfill, located north of Roseville Parkway, and the Berry Street Mall Landfill, located south of Roseville Parkway. The Roseville Sanitary Landfill is an approximately 100-acre site that was closed in 1994. The Berry Street Mall Landfill is an approximately 26-acre site that was closed in 1987. Active monitoring wells are located throughout the project study area, and the water and air quality are routinely tested.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact – During excavation, grading, and construction activities for the proposed project, it is anticipated that limited quantities of miscellaneous hazardous substances (such as petroleum-based products/fluids, solvents, and oils) would be employed in the project area and staging area. The proposed project would comply with all relevant Federal, state, and local statutes and regulations related to transport, use, or disposal of hazardous materials. Therefore, impacts related to transport, use, or disposal of hazardous materials would be less-than-significant. Construction activities would incorporate BMPs (as required by Federal and state regulations) and would minimize hazards resulting from routine transport, use, or disposal of hazardous materials.
- b) Less-than-Significant Impact – The operation and storage of construction equipment on the project site has the potential to affect water quality through the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways. However, spill prevention measures would be included on the construction plans for the proposed improvements to address the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways. Such measures would include rules requiring the storage of reserve fuel and the refueling of

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- construction equipment within designated construction areas and the staging area, and inspection of vehicles for oil and fuel leaks. Therefore, impacts related to accidental release of hazardous materials into the environment would be less-than-significant.
- c) No impact – The project study area is not located within a ¼ mile of an existing or proposed school. Therefore, no impact would occur with project implementation.
 - d) No impact – The project study area is not included on a list of hazardous materials sites complied pursuant to government Code Section 65962.5. Impacts to the project area resulting from the adjacent closed landfill sites are not anticipated. Therefore, no impact would occur with project implementation.
 - e) No impact – The project study area is not located within an airport land use plan or within 2 miles of a public or public use airport, and therefore no safety hazard would result for people residing or working in the project area. Therefore, no impact would occur with project implementation.
 - f) No impact – The project study area is not located within the vicinity of a private airstrip, and therefore no safety hazard would result for people residing or working in the project area. Therefore, no impact would occur with project implementation.
 - g) No impact – The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, no impact would occur with project implementation.
 - h) Less-than-Significant Impact – The project study area includes open space; however, according to the City of Roseville General Plan, most of the City is considered a low-severity zone for wildland fire hazards. The proposed project would not add any new uses that could create a greater fire risk than currently exists. Fire suppression equipment including fire extinguishers would be kept on site during construction in accordance with local fire codes and standards. In addition, construction activities that could generate sparks would be conducted in the staging areas and a sufficient distance away from the existing landfill gas monitoring wells. Therefore, the exposure of people or property to significant fire hazards would be less-than-significant.

CONCLUSION

The proposed project would not result in significant impacts as a result of the use or transport of hazards and hazardous materials.

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.9 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) Inundation by seiche, tsunami or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL SETTING

According to the City of Roseville General Plan, the City is located within two drainage basins: Pleasant Grove Creek and Dry Creek. Dry Creek and its tributaries drain portions of the City from Rocklin to the north, Loomis Basin to the east, Sacramento County to the south, and Placer County to the west. The Dry Creek system has year-round flows in its major water courses.

According to the Updated Dry Creek Watershed Flood Control Plan, the Dry Creek watershed covers an area of approximately 100 square miles in Placer and Sacramento Counties. The headwaters of Dry Creek are located in the upper portions of the Loomis Basin, in the Granite Bay area near Folsom Lake, and in Orangevale in Sacramento County. Antelope Creek and Clover Valley Creek form the northwest boundary of the watershed, and Secret Ravine and Miners Ravine comprise the northeast portion of the watershed. Antelope Creek and Miners Ravine, downstream from their confluences with Clover Valley Creek and Secret Ravine, respectively, combine near I-80 and Atlantic Street in Roseville to form Dry Creek. Antelope Creek is a perennial creek draining the northeast portion of the Dry Creek watershed.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact - Construction activities associated with the proposed project could potentially cause or result in erosion and/or siltation. Erosion of onsite soils can lead to increased levels of suspended sediments and turbidity in receiving waters of Antelope Creek, and could potentially impact water quality and result in a violation of water quality standards. Section 401 of the Clean Water Act requires water quality certification from the RWQCB when a project requires a Clean Water Act Section 404 permit to regulate the discharge of dredged and fill material into Waters of the United States, including wetlands. Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the NPDES permit program for the discharge of any pollutant into Waters of the United States. As described above in Section 3.6 Geology and Soils, the District would submit a Notice of Intent (NOI) to the RWQCB to obtain coverage under the NPDES General Permit, and would prepare a SWPPP with BMPs to reduce impacts from erosion and sedimentation during grading. Implementation of spill prevention measures to address the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways would further help minimize potential construction-related water quality impacts.

The proposed project configurations would cause the 100-year water surface elevations to increase upstream from the weirs and water to be temporarily detained on these properties during flood events. However, the project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event and these wells would remain subject to inundation as a result of the proposed project. In addition, no new monitoring wells would be subject to inundation as a result of the proposed project. The existing configuration of these monitoring wells and probes is such that temporary inundation does not hamper the use of these facilities when the flooding event has ended. Further, the current protective features of these facilities are such that temporary flooding is not expected to damage the well or probe. Current sampling frequencies allow ample time for storm waters to recede and normal conditions to return prior to a sampling event. Therefore, no modifications to the existing monitoring wells would be necessary. The District would coordinate with the City of Roseville and the Central Valley RWQCB to amend the landfill's existing Waste Discharge Requirement No. R5-2004-0104 to account for the changed water surface elevation.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Therefore, construction and operation activities are not anticipated to affect water quality in the project area. This impact would be less-than-significant and no additional mitigation would be required.

- b) No Impact – The proposed project would not require the use of, or interfere with, groundwater supplies in the project study area. Potential changes in groundwater levels or quality are not expected to result from the implementation of the proposed project. As a result, groundwater supplies and groundwater recharge capability would not be affected in the project area. Therefore, no impact would occur with project implementation.
- c) Less-than-Significant Impact - Implementation of the proposed project would result in a slight increase in impervious surfaces at the project area. Impervious surfaces can alter drainage patterns or cause increases in the rate and amount of surface water runoff. Further, temporary erosion control measures outlined in Section 3.6 Geology and Soils would be implemented during construction, where required, to reduce the potential for erosion and sedimentation to occur. Therefore, impacts related to erosion or siltation resulting from the alteration of the existing drainage pattern would be less-than-significant.
- d-e) Less-than-Significant Impact - The objectives of the proposed project are to improve flood protection and reduce potential for flood damages in previously impacted areas of downtown Roseville and unincorporated areas of Placer County; improve water quality downstream of the project area; enhance the existing riparian corridor and habitats; and, improve an existing public recreation corridor. The proposed project is intended to implement the Updated Dry Creek Watershed Flood Control Plan adopted by Placer County and detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Both proposed weirs would include a primary weir that would be designed and constructed to overtop during a 15- or 20-year storm event. The secondary weir or the top of embankment would be designed to overtop during approximately the 100-year storm event. The proposed project configurations would cause the 100-year water surface elevations to increase upstream from the weirs and water to be temporarily detained on these properties during flood events. The proposed weir designs have limited the vertical increase in the 100-year base flood elevations to a maximum of less than 5 feet in the immediate upstream vicinity of both weirs. Therefore, the proposed project is not anticipated to substantially increase the rate or amount of surface runoff in a manner that would result in long-term flooding, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Drainage water that may contain pollution has been addressed under heading a) of this section. Impacts related to surface runoff from the proposed project would be less-than-significant.

- f) Less-than-Significant Impact - As discussed under item a) above, the proposed project would include temporary erosion control measures to protect water quality in the project area. Therefore, the proposed project is not expected to substantially degrade water quality and impacts would be less-than-significant.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- g) Less-than-Significant Impact –The proposed project configurations would cause 100-year water surface elevations to increase upstream from the weirs and this rise in water surface could reduce the area available for development on some private properties. Figure 3-2 shows the existing and proposed 100-year floodplain and the properties that would be potentially impacted by the proposed project. As shown on Figure 3-2, the change in the 100-year floodplain would not place any existing housing in the 100-year floodplain. To minimize the effect of the rise in water surface elevation, the District could either obtain flood easements to offset the effects of water being temporarily detained on these properties during flood events or place fill on the properties in a manner so as to maintain the land area available for development. The District is working with the property owners of the potentially affected properties to determine the most appropriate way to remedy this change in water surface elevation. The proposed weir designs have limited the vertical increase in the 100-year base flood elevations to a maximum of less than 5 feet in the immediate upstream vicinity of both weirs. In addition, one automated ALERT-type stream level and precipitation gauge would be installed in the project study area. Since the proposed project would not place housing within the 100-year floodplain and the District is working with the upstream properties owners to minimize the effects of the rise in the water surface elevation, this impact is considered less-than-significant and no mitigation is required.
- h) Less-than-Significant Impact – The proposed project would not result in the placement of any structures within a 100-year flood hazard area that would impede or redirect flood flows. Rather the proposed project would include features that would detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties. As stated above under item g), the proposed project configurations would cause the 100-year water surface elevations to increase upstream from the weirs. To minimize the effect of the rise in water surface elevation, the District could either obtain flood easements to offset the effects of water being temporarily detained on these properties during flood events or place fill on the properties in a manner so as to maintain the land area available for development. Therefore, impacts related to the exposure of structures to flooding would be less-than-significant.
- i) Less-than-Significant Impact – The proposed project is expected to reduce the impact of flood flows downstream of the project area, and is not expected to expose people or structures to a risk of loss, injury or death from flooding. Impacts related to exposure of people or structures to flooding would be less-than-significant.
- i) No Impact - The potential for damage caused by tsunamis is considered low given that the project study area is not directly exposed to the open ocean. Seiches would be limited to the larger water bodies, such as reservoirs. Thus the potential for seiche, tsunami, or mudflow at the project area would be low.

CONCLUSION

The proposed project would not result in significant impacts to hydrology and water quality as described above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.10 LAND USE AND PLANNING

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

The project study area is located in Placer County, in the City of Roseville. Land use designations for the project study area outlined in the City of Roseville General Plan 2025 include Open Space, Community Commercial, and Parks and Recreation. The project study area also falls within the North Central Roseville Specific Plan area, for which land use designations include: Open Space (OS), including Open Space/Recreation, Lower Watershed, Wetland Preserve, and Slope Easement; Community Commercial (CC); and Park/Recreation (PR). The City of Roseville Zoning Ordinance designates the project study area as: OS – Open Space; OS-SA/NC – Open Space-Special Area/Neighborhood Commercial; OS/FW – Open Space/Floodway; M2-General Industrial; PR – Park and Recreation; and CC-SA/NC – Community Commercial-Special Area/Neighborhood Commercial.

DISCUSSION OF IMPACTS

- a) No Impact – The proposed project would not result in the physical division of a community. The proposed project would not create a new barrier between various portions of the project area, and would not result in any permanent structures that would physically divide an established community. Therefore, no impact would occur with project implementation.

- b) No Impact – The proposed project would comply with all applicable land use plans, policies, and regulations. Therefore, no impact would occur with project implementation.

- c) No Impact – The proposed project would not conflict with implementation of a habitat conservation or natural community conservation plan. Therefore, no impact would occur with project implementation.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

CONCLUSION

The proposed project would not result in significant impacts to land use and planning as identified in the discussion above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.11 MINERAL RESOURCES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

In compliance with the California Surface Mining and Reclamation Act (SMARA), the California Division of Mines and Geology has established a classification system to denote both the location and significance of key extractive resources. Under SMARA, the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. According to the North Central Roseville Specific Plan, the mineral resource zone (MRZ) designation for the project study area is MRZ-3, which indicates that the significance of mineral deposits within this area cannot be determined based on available data.

DISCUSSION OF IMPACTS

- a) No Impact – The project study area does not contain areas that are designated for MRZs, and are not shown in the City or County General Plans as areas of mineral resources to be protected from further development. Implementation of the proposed project is not anticipated to result in the loss of mineral resources. Therefore, no impact would occur with project implementation.

- b) No Impact - The project study area is not located in an area delineated in the City of Roseville General Plan as locally important mineral resource recovery site. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in significant impacts to mineral resources for the reasons identified above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.12 NOISE

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Noise-sensitive land uses generally include those uses where exposure would result in adverse effects (e.g., sleep disturbance, annoyance), as well as uses where quiet is an essential element of their intended purpose. Residences are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other land uses typically considered sensitive to noise include hospitals, convalescent facilities, parks, auditoriums, amphitheatres, public meeting rooms, motels, hotels, churches, schools, libraries, and other uses where low interior noise levels are essential.

A wide variety of land uses and potential noise sources are included in the project study area, such as the roadway and railroad noise. Noise-sensitive receptors in the project study area include recreational uses (Antelope Creek Trail) and the multi-family residential complex located east of and adjacent to the northern portion of the project study area,

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

The City of Roseville Municipal Code establishes standards for limiting potential noise impacts from construction activities. The Roseville Noise Ordinance allows construction activity on weekdays between the hours of 7:00 a.m. and 7:00 p.m. and on weekends between the hours of 8:00 a.m. and 8:00 p.m. The Noise Ordinance stipulates that all construction equipment used during these time periods shall be maintained in good working order. The Noise Ordinance does not define quantifiable noise levels for construction-related activities within the allowable time periods.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact - For the proposed project, which would generate altered noise conditions only during project construction activities, the City of Roseville Noise Ordinance (described above) is the applicable local noise standard. Construction of the proposed project would be temporary and short-term, and would occur outside of the noise restricted hours outlined in the City of Roseville Noise Ordinance. Thus, implementation of the proposed project would be consistent with the City of Roseville Noise Ordinance and impacts would be less-than-significant.
- b) Less-than-Significant Impact – Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. As discussed in Chapter 2, on-site construction equipment is assumed to include a backhoe/front-end loader, a bobcat, a concrete truck, a haul truck, a hydraulic excavator, and a hydraulic crane. The proposed project is not anticipated to require deep excavations, but would be anticipated to generate some groundborne vibration and/or noise. However, no residential properties are located within 0.5 miles of the proposed construction activities. Therefore, since construction activity noise levels and vibration would be short-term and temporary and there are no nearby sensitive receptors that would be potentially exposed to excessive levels of groundborne vibration or noise levels impacts resulting from the proposed project would be less-than-significant.
- c) No Impact - The proposed project would not result in any permanent increase in ambient noise levels over existing noise levels. Therefore, no impact would occur with project implementation.
- d) Less-than-Significant Impact – As discussed under Item a) above, construction activities for the proposed project may result in temporary increases in noise levels in the area. While, the project would not result in the any long-term sources of stationary noise, construction activities may substantially increase ambient noise levels over existing levels. As described under item a), construction of the proposed project would be temporary and short-term, and would occur outside of the noise restricted hours outlined in the City of Roseville Noise Ordinance. Thus, impacts related to increase in temporary noise levels would be less-than-significant.
- e-f) No Impact – The project study area is not located within close proximity to an airport land use plan area and is not within the vicinity of a private airstrip. Thus the proposed project would not expose people residing or working in the project study area to excessive noise levels. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in significant noise impacts as identified above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.13 POPULATION AND HOUSING

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The project study area falls within the North Central Roseville Specific Plan area, for which land use designations include: Open Space (OS); Community Commercial (CC); and Park/Recreation (PR). The North Central Roseville Specific Plan covers an area of approximately 1,550 acres of land and has a variety of land uses including residential neighborhoods, schools, parks, and commercial. According to the City of Roseville General Plan, the population total for the City of Roseville was 122,062 in 2012 (City of Roseville 2013). According to 2010 Census data, the number of households in the City was 45,019 (U.S. Census Bureau 2012).

DISCUSSION OF IMPACTS

- a) No Impact – The proposed project is intended to implement the Dry Creek Watershed Flood Control Plan adopted by Sacramento and Placer Counties and detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties. Development of the proposed project would not induce substantial population growth in the North Central Roseville Specific Plan area. Therefore, no impact would occur with project implementation.

- b-c) No Impact – The proposed project would not displace any existing homes or people and therefore, would not necessitate the construction of replacement housing elsewhere. As described in Section 3.9, Hydrology and Water Quality the proposed project would not place housing within a 100-year floodplain. Additionally, the project study area is currently designated open space by the City of Roseville and the proposed project would not change that designation. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in significant impacts to population and/or housing as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.14 PUBLIC SERVICES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- | | | | | |
|-----------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

Fire and police protection in the project study area are provided by the City of Roseville. Schools in the project study area are within the Roseville City and Roseville Joint Union High School Districts. Several parks are located throughout the City, and recreational opportunities also include bike trails and open space, such as the Antelope Creek Trail, in the project study area.

DISCUSSION OF IMPACTS

a-b) No Impact - The proposed project would not increase demands for fire and/or police protection because it would not include new housing or business structures, or indirectly increase housing or businesses in the vicinity of the project study area. The proposed project would not change the type or intensity of land uses in the project study area; consequently, the demand for fire and police protection services under the proposed project would be the same as that currently provided. Therefore, the proposed project would not result in short-term or long-term impacts to emergency services.

c-e) No Impact – The proposed project would not include new housing. Therefore, it would not generate students or increase demands for school services or parks. In addition, the proposed project would not increase demands for other public facilities because it would not include new housing or business structures, or indirectly increase housing or businesses in the vicinity of the project study area. Lastly, the proposed project would not alter the current demand for public services, and no additional services or changes to existing services would be required. Therefore, no impact would occur to schools, parks, or other public facilities.

CONCLUSION

The proposed project would not have a significant impact on public services as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.15 RECREATION

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

According to the City of Roseville General Plan, the Parks and Recreation and Open Space Elements are separate but closely linked. Lands designated for parks and recreation uses provide an important component of the overall open space network, and open space areas possess some recreational value even though not classified as traditional “active” park lands. In the project study area, recreational features include the Antelope Creek Trail, a multi-use trail intended for cyclists, pedestrians, and non-motorized vehicles.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact – In addition to flood control improvements, the proposed project includes improved public parking, access, and educational opportunities for the public along the existing multi-use recreational trail. Thus, the proposed improvements may encourage use of the trail; however, the proposed project is not expected to increase the use of the trail or any other existing neighborhood or regional parks or recreational facilities such that physical deterioration of the facility occurs. Impacts related to use of existing parks and recreational facilities would be less-than-significant.
- b) Less-than-Significant Impact – As described under item a) above, the proposed project includes improved public parking, access, and educational opportunities for the public along the existing multi-use recreational trail (Antelope Creek Trail). As stated in Chapter 2, on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive would be constructed as part of the proposed project. Approximately 10 stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. During construction of the Phase 2 (Upper Weir), public access to the multi-use trail would be closed and rerouted. A detour for the trail would be established along Antelope Creek Drive, Creekside Ridge

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system. Each of the streets associated with the detour have a paved and striped bike lane along with sidewalks. Therefore, impacts to recreational access resulting from implementation of the proposed project would be short-term and temporary. Affects of constructing the off-street parking area have been evaluated as part of the project in Section 3.4 Biological Resources. Therefore, although the proposed project would provide improvements for existing recreational features, the proposed project would not have an adverse physical effect on the environment and this impact would be less-than-significant.

CONCLUSION

The proposed project would not result in significant impacts to recreation resources as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.16 TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

ENVIRONMENTAL SETTING

The project study area is generally bounded by Galleria Boulevard to the west, I-80 to the east, Atlantic Street to the south, and SR 65 to the north. Roseville Parkway crosses Antelope Creek just north of the proposed Weir 2. The project study area is located in the North Central Roseville Specific Plan area. Arterials identified in the plan for the project study area include Roseville Parkway and Galleria Boulevard, and the only collectors identified in the plan for the project study area is Antelope Creek Drive. The City's Level of Service (LOS) policy requires that 70 percent of City intersections function at a LOS 'C' (defined as stable operation/acceptable delays) or better during pm peak hour travel. According to the City of Roseville General Plan,

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

existing conditions for Galleria at Antelope Creek Drive are operating at LOS 'A', which is better than the standard of LOS 'C'.

Access to the proposed project is anticipated to be either from Galleria Boulevard to Antelope Creek Drive to an existing access road along the eastern portion of the project study area adjacent to existing railroad tracks, or from Galleria Boulevard to Berry Street (Antelope Creek Trail).

The City of Roseville has a single distinct public transit operator within its corporate boundaries, Roseville Transit, which is owned and operated by the City of Roseville. The City also has an extensive bike network, and develops Class I bike paths in parks, greenways, and open space/recreational/creek corridors; Antelope Creek Trail in the project study area is a Class I trail.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact – As described in Chapter 2 Project Description, the proposed project would be constructed in two phases. The Upper Weir would be constructed in 2014 and the Lower Weir would be constructed at a later time based on funding. Each weir would take approximately four months to construct. Construction of the Upper Weir is anticipated to require 600 total truck trips on-site (to weir from borrow areas and back, approximately a 0.75 mile round trip) and 120 total one-way truck trips from off-site (from the Sacramento area, no more than 20 miles away) for materials delivery. Construction of the Lower Weir is anticipated to require 800 total truck trips on-site (to weir from borrow areas and back, approximately a 0.25 mile round trip) and 440 total one-way truck trips from off-site (from the Sacramento area) for materials delivery. Thus one-way truck trips from off-site would average 30 per month/1-2 per day for the Upper Weir and 110 per month/ 5 per day for the Lower Weir over each 4-month construction period. The construction labor force is estimated to average about 10-15 persons per weekday (Monday through Friday) over each 4-month construction period. Construction workers would be commuting daily to and from the project study area during each construction period. However, any increase in traffic resulting from employee commute trips would be short term and temporary. Therefore, the number of truck trips and employee trips associated with project construction activities would fall below the Institute of Traffic Engineers (ITE) thresholds of 50 trucks, 100 passenger vehicles, or an equivalent combination of vehicles per peak hour in the peak direction at an intersection.

The main sources of construction traffic would be within the project study area and would be associated with trucks moving within the project study area (off local streets). Borrow materials would come from the project study area to the extent feasible, or would be transported to the site as needed. At times, the presence of slow-moving trucks entering or exiting construction areas could pose hazards to other vehicles on Antelope Creek Drive and Berry Street. In addition, trucks and other vehicles could track mud and gravel onto the local roadways, potentially posing a driving hazard. However, the construction contractor would include signage at the construction access entrances on Antelope Creek Drive and Berry Street warning the general public of the construction area and the possibility of slow moving vehicles/construction traffic. The construction contractor would also sweep Antelope Creek Drive and Berry Street (water sweeper with reclaimed water recommended) at the end of each day if substantial volumes of soil material have been carried onto these roadways from the project area.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Therefore, the proposed project is not expected to generate significant vehicle trips, increase the volume to capacity ratio on local roads, or significantly increase the amount of vehicle miles traveled over existing conditions. Minor increases in traffic are expected during the construction period, but such increases would be short term and temporary. No long term increases in traffic would result from implementation of the proposed project. The proposed project would not cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system. This is considered a less-than-significant impact.

- b) Less-than-Significant Impact - As discussed above in item a), any increase in traffic resulting from construction of the proposed project would be short term and temporary. As described above, the construction labor force is estimated to average about 10-15 persons per weekday (Monday through Friday) over each 4-month construction period. Construction workers would be commuting daily to and from the project study area during each construction period. However, truck trips would not be anticipated to occur at the same time as employee commute trips, as employees must be present at the project site to operate construction equipment and receive deliveries of materials. In addition, truck traffic would not exceed the ITE threshold of 50 trucks per hour in the peak direction during the peak hour at any individual roadway intersection, nor would commute traffic and truck haul traffic combined exceed the equivalent threshold for a mix of passenger vehicles and trucks during a peak hour in a peak direction at a single intersection. Thus, commute and truck traffic would not affect peak hour travel at any individual roadway intersection in the vicinity of the project study area.

The City of Roseville General Plan established a Level of Service 'C' as the standard for roads within their jurisdiction. As described above, existing conditions for Galleria Boulevard at Antelope Creek Drive, one of the potential access points for the proposed project, are operating at LOS 'A'. Because the proposed project is not expected to generate significant vehicle trips and is of a short duration, the project is not expected to exceed either individually or cumulatively, the LOS standard established by the City. Therefore, it is not anticipated that the proposed project would add sufficient trips to local roadways to degrade levels of service below acceptable standards. This is considered a less-than-significant impact.

- c) No Impact - The proposed project is not anticipated to result in any changes in air traffic patterns, increase in air traffic levels, or a change in location that would result in substantial safety risks. Therefore, no impact would occur with project implementation.
- d) Less-than-Significant Impact – As described under item a) above, the occasional presence of slow-moving trucks entering or exiting construction areas could pose hazards to other vehicles on Antelope Creek Drive and Berry Street. In addition, trucks and other vehicles could track mud and gravel onto the local roadways, potentially posing a driving hazard. However, the construction contractor would include signage at the construction access entrances on Antelope Creek Drive and Berry Street warning the general public of the construction area and the possibility of slow moving vehicles/construction traffic. The construction contractor would also sweep Antelope Creek Drive and Berry Street (water sweeper with reclaimed water recommended) at the end of each day if substantial volumes of soil material have been carried onto these roadways from the project area.

The proposed project would not result in alterations to existing public roadways, and the safety of the public transportation network would not be affected. Project operation would

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

not result in any change in land uses, and therefore would not alter the compatibility of uses served by the public roadway network. Some modifications to the existing access roads may be necessary to facilitate access to the project area. However, modifications to existing access roads would be in accordance with adopted design requirements and would not be anticipated to increase hazards due to a design feature or incompatible uses. In addition, the re-aligned bike path would comply with local, state, and federal standards and would not result in safety concerns for bicyclists. Therefore, impacts related to hazards resulting from design features would be less-than-significant.

- e) Less-than-Significant Impact – As described above, construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. Construction of the proposed project would not result in short-term or long-term impacts to emergency access. Therefore, impacts related to emergency access would be less-than-significant.
- f) Less-than-Significant Impact - The proposed project includes improved public parking, access, and educational opportunities for the public along the existing bike path/ multi-use Antelope Creek Trail. As stated in Chapter 2, on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive would be constructed as part of the proposed project. Approximately 10 stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. Therefore, the on-street parking option may conflict with established City of Roseville standards requiring bike lanes along arterial and collector roadways and would instead require the sidewalk in this segment to be widened to accommodate pedestrians and bicycles per the City of Roseville standards.

During construction of the Phase 2 (Upper Weir) public access to the bike path/ multi-use Antelope Creek Trail would be closed and rerouted. A detour for the bike path would be established along Antelope Creek Drive, Creekside Ridge Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify bicyclists using the bike path. Each of the streets associated with the detour have a paved and striped bike lane. Therefore, impacts to transportation access to the bike path/ multi-use Antelope Creek Trail resulting from implementation of the proposed project would be short-term and temporary. The proposed project would not affect any other public transportation methods or routes, nor would it conflict with any local plans or policies regarding public transportation. Therefore impacts related to public transit, bicycle, or pedestrian facilities would be less-than-significant.

CONCLUSION

The proposed project would not result in significant transportation or traffic impacts as described above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.17 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ENVIRONMENTAL SETTING

Water, wastewater, and solid waste disposal services in the project study area are provided by the City of Roseville. Roseville's water treatment plant was constructed in 1971, and most recently expanded in 2008, and is capable of treating up to 100 million gallons/day of raw water delivered from Folsom Lake. The City's water distribution system consists of water mains and pump stations, which provide sufficient water pressure to the higher elevations of the City and lift water into storage reservoirs. The collection of wastewater and delivery to the City's regional treatment plants is through a system of lift stations and collector and trunk lines, and is primarily a gravity flow system with wastewater flowing downhill to the treatment plants. The City of Roseville, along with the Cities of Lincoln and Rocklin, and Placer County are all part of the Western Placer Waste Management Authority that provides for solid waste management. Placer County oversees the operation of the Western Regional Sanitary Landfill.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

DISCUSSION OF IMPACTS

- a-e) No Impact –The proposed project would not require or result in the construction of new or expanded water or wastewater treatment facilities. As such, the proposed project would not exceed wastewater treatment requirements of the applicable RWQCB. The proposed project would not require or result in the construction of new City stormwater drainage facilities or necessitate the expansion of existing facilities. The proposed project would not require potable water, thus no new or expanded water supplies or entitlements would be required as a result of the proposed project. The proposed project would not require service by wastewater treatment facilities and would not affect wastewater treatment capacity.
- f,g) No Impact - It is anticipated that the proposed project would generate excess materials during construction that would require disposal. Construction debris and excess material requiring disposal in a landfill would be hauled off-site to a suitable facility. Following completion of construction, the proposed project would not require landfill service and thus would not affect landfill capacity. The proposed project would comply with all relevant Federal, state, and local statutes and regulations related to the generation and disposal of solid waste.

CONCLUSION

The proposed project would not have a significant impact on utilities and service systems as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact – The proposed project would not degrade the quality of the environment. Implementation of mitigation measures identified in Section 3.4 Biological Resources, would ensure that project implementation would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of rare or endangered plants or animals. Mitigation measures identified in Section 3.5 Cultural Resources would ensure that the proposed project would not eliminate important examples of the major periods of California history or prehistory.
- b) No Impact – No cumulatively considerable impacts would occur with development of the proposed project. The duration of each construction period would be four months and no other projects are known to be planned for construction during the same time that would cause cumulatively significant impacts. No past, current, or future projects were identified in the project vicinity that, when added with project-related impacts, would result in cumulatively considerable impacts.
- c) No Impact – No project-related environmental effects were identified that would cause substantial adverse effects on human beings.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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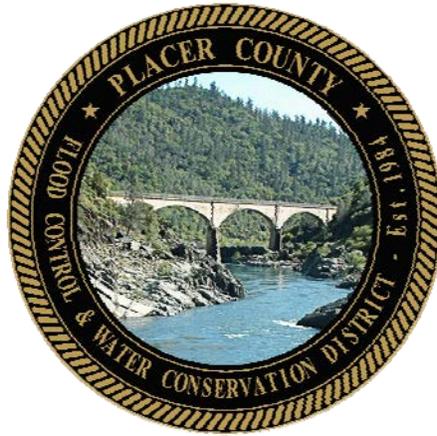
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Final Initial Study / Mitigated Negative Declaration

Antelope Creek Flood Control Project



Placer County Flood Control and Water Conservation District

State Clearinghouse # 2013112064

January 2014



2365 Iron Point Road, Suite 300
Folsom, CA 95630

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MITIGATED NEGATIVE DECLARATION

PROJECT: Antelope Creek Flood Control Project

LEAD AGENCY: Placer County Flood Control and Water Conservation District

PROJECT DESCRIPTION: The Placer County Flood Control and Water Conservation District (District) is proposing to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements on a segment of Antelope Creek. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The District is the lead agency under the California Environmental Quality Act (CEQA).

The Draft Initial Study/ Mitigated Negative Declaration (Draft IS/MND) was submitted to the State Clearinghouse on November 22, 2013 for a 30 day public review period. During the public review period the Draft IS/MND was made available for review on the District's Web site, <http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek.com>.

FINDINGS: An initial study (IS) was prepared to assess the proposed project's potential effects on the environment and the significance of those effects. Using the results of the IS, the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following proposed findings:

- ▶ The project would result in no impacts to agriculture and forestry resources, land use/ planning, mineral resources, population and housing, public services, and utilities and service systems.
- ▶ The project would result in less-than-significant impacts to aesthetics, air quality, geology/ soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/ water quality, noise, recreation, and transportation/ traffic.
- ▶ Although there are currently no nesting raptors that might be disturbed at the project site, mitigation is included to address the potential for raptors to nest at or near the project site prior to construction of the project.
- ▶ Although there are no known cultural resources that might be disturbed, mitigation is included to address the potential for discovering archaeological and/or human remains during the construction phase of the project.
- ▶ The project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.
- ▶ The project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- ▶ The project would not have environmental effects that are individually limited but cumulatively considerable.
- ▶ The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

- ▶ No substantial evidence exists that the project would have a significant negative or adverse effect on the environment.
- ▶ The project incorporates all applicable mitigation measures, as listed below and described in the IS.

The following mitigation measures shall be implemented as part of the project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potential environmental impacts of the proposed project to a less-than-significant level.

Mitigation Measure 1 - Implementation of Avoidance and Minimization Measures for Elderberry Shrubs

Mitigation Measure 2 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Fish Species

Mitigation Measure 3 - Pre-construction Surveys for Swainson's Hawk and Establishment of Buffers, if Necessary

Mitigation Measure 4 - Pre-construction Surveys for Special-Status Bird Species and MBTA-Covered Migratory Birds

Mitigation Measure 5 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Species and Sensitive Habitats

Mitigation Measure 6 - Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Burrowing Owl

Mitigation Measure 7 - Implementation of City of Roseville Tree Preservation Ordinance

Mitigation Measure 8 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to State Sensitive Species Western Pond Turtle and Western Spadefoot

Mitigation Measure 9 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

Mitigation Measure 10 - Protection of Prehistoric or Historic Subsurface Cultural Resources

Mitigation Measure 11 - Protection of Human Remains

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ACRONYMS AND ABBREVIATIONS

CEQA	California Environmental Quality Act
cfs	cubic feet per second
CVFPB	Central Valley Flood Protection Board
CVRWQCB	Central Valley Regional Water Quality Control Board
DBH	diameter at breast height
District	Placer County Flood Control and Water Conservation District
IS/MND	Initial Study/ Mitigated Negative Declaration
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
PRC	Public Resources Code
SR	State Route
U.S.	United States

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1 INTRODUCTION

The Placer County Flood Control and Water Conservation District (District) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the environmental consequences of the proposed Antelope Creek Flood Control Project (proposed project) in the City of Roseville, Placer County, California. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The project proposes to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements.

1.1 PURPOSE OF THIS DOCUMENT AND OVERVIEW OF THE DRAFT IS/MND PUBLIC REVIEW PROCESS

On November 22, 2013, the District distributed to public agencies and the general public the Draft IS/MND for the proposed project. The Draft IS/MND was prepared on behalf of the District in accordance with the requirements of the California Environmental Quality Act (CEQA) Statutes (Public Resources Code [PRC] Sections 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The District is the lead agency under CEQA.

In accordance with the CEQA Statutes (PRC Section 21092) and Section 15072 of the State CEQA Guidelines, public notice of the Draft IS/MND and the beginning of the public review period was provided by the District through publication of an announcement in the Sacramento Bee on November 22, 2013. In accordance with Section 15105(b) of the State CEQA Guidelines, the District provided a 30-day public review period for the Draft IS/MND, ending on December 23, 2013.

The public notice published in the Sacramento Bee included the notice of intent (NOI) to adopt a proposed mitigated negative declaration for the Antelope Creek Flood Control Project. The NOI included information on how to obtain copies of the Draft IS/MND and how to provide comments on the document. Additional notification methods of the availability of the Draft IS/MND were also used, including: emailing the NOI to interested parties and posting of the electronic version of the Draft IS/MND on the project website:

<http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek>.

The District received two comment letters on the Draft IS/MND during the 30-day public comment period. Both comment letters are addressed in this Final IS/MND. This Final IS/MND has been prepared to respond to the comments received by the District on the Draft IS/MND and to provide minor corrections and updates to the Draft IS/MND in response to comments received, in accordance with the State CEQA Guidelines.

This document consists of the following chapters:

- ▶ Chapter 1, "Introduction," describes the purpose of this Final IS/MND, provides an overview of the public review process, summarizes the project background and need, objectives, and provides an overview of the proposed project and the anticipated project timeline.
- ▶ Chapter 2, "Comments and Responses to Comments on the Draft IS/MND," reproduces the comment letters received by the District on the Draft IS/MND and provides responses to those comments.
- ▶ Chapter 3, "Corrections and Updates to the Draft IS/MND," lists minor modifications to the Draft IS/MND made in response to the comments received. These modifications do not change any of the impact conclusions stated in the Draft IS/MND.

- ▶ Chapter 4, "List of Preparers," lists the individuals who contributed to the preparation of this Final IS/MND.
- ▶ Chapter 5, "References Cited," lists the sources cited in this Final IS/MND.

This document and the Draft IS/MND together constitute the Final IS/MND for the ACFCP. The Draft IS/MND is hereby incorporated into this document by reference.

1.2 PROJECT BACKGROUND AND NEED

The Dry Creek watershed covers an area of 101.4 square miles in Placer and Sacramento Counties. The majority of the watershed (82 percent) is contained within the limits of Placer County. The headwaters of Dry Creek are located as follows: in the upper portions of the Loomis Basin; in the vicinity of Penryn and Newcastle; in unincorporated Placer County; in the Granite Bay area near Folsom Lake; and in Orangevale in Sacramento County. Antelope Creek and Clover Valley Creek form the northwest boundary of the watershed, and Secret Ravine and Miners Ravine comprise the northeast portion of the watershed. Antelope Creek and Miners Ravine, downstream from their confluences with Clover Valley Creek and Secret Ravine, respectively, merge near I-80 and Atlantic Street in Roseville to form Dry Creek. Dry Creek then flows west-southwest through Sacramento County where it empties into the Natomas East Main Drainage Canal, which flows into the American River.

The 2011 Updated Dry Creek Watershed Flood Control Plan (Plan) identifies a series of projects that would help manage flows within the Dry Creek Watershed area of the American River Basin. The primary purpose of the 2011 Updated Plan is to evaluate the hydrology of the watershed and provide recommendations that are both feasible and effective in reducing future flood damages and identifying ways to minimize impacts to development as a result of changed flood conditions. Of the recommended projects in the Plan, the Antelope Creek Flood Control Project near Atlantic Street would provide the greatest reduction in peak flows at Vernon Street in Roseville. As defined in the Plan, the Antelope Creek Flood Control Project near Atlantic Street (proposed project or project) includes a regional flood control project on Antelope Creek upstream of Atlantic Street and downstream of the SR 65 crossing. Antelope Creek is a perennial creek and major tributary of Dry Creek that drains the northeast portion of the Dry Creek Watershed.

As proposed in the Plan, the project would involve the design and construction of two on-channel weirs along an existing open space-protected reach of the creek. The project would meet multiple planning objectives by: improving flood protection and reducing potential for flood damages in previously impacted areas of downtown Roseville and unincorporated areas of Placer County; improving water quality downstream of the project area; enhancing the existing riparian corridor and habitats; and, improving an existing public recreation corridor.

More specifically, the proposed project would:

- Reduce peak flood flows over a wide range of flood events,
- Enrich existing aquatic and riparian corridor ecosystems through habitat restoration,
- Potentially improve water quality through groundwater recharge and natural treatment of temporarily stored flood waters within the floodplain, and
- Enhance recreational opportunities within the floodplain of Antelope Creek, including the Antelope Creek Class 1 Bike Path and Recreational trail.

1.3 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT AND OBJECTIVES

The primary objective of the project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Secondary objectives of the project include:

- Improving access at two existing recreational trailheads with new parking options, and
- Restoring aquatic and riparian habitat along Antelope Creek. Key goals for the restoration components include:
 - Restoring sections of the creek channel and improving floodplain connectivity;
 - Improving habitat values;
 - Avoiding or minimizing impacts to large trees and sensitive environmental areas;
 - Removing invasive and non-native plant species; and,
 - Ensuring the stream channel remains naturally stable and fish passage is maintained and enhanced.

The recreational and restoration components of the project would provide “beneficial impacts” in the project area and to the environment in general.

The project includes two primary flood control elements along with recreational and aquatic and riparian habitat restoration elements. An overview of these project elements is provided below.

Flood Control: The proposed flood control elements would be constructed in two phases and include two weir structures. Phase 1 (Lower Weir) would be constructed upstream from the UPRR crossing just north of Atlantic Street. Phase 2 (Upper Weir) would be constructed where the multi-purpose recreation trail crosses Antelope Creek, just downstream of the East Roseville Parkway Overcrossing. Figure 2-2 of the Draft IS/MND shows the project study area and the project impact areas, including the Phase 1 and Phase 2 weir locations.

Both weirs would include culvert outlet design options that provide a natural streambed bottom. At the Phase 2 (Upper Weir) location, the project would provide a significant benefit to fish by removing existing fish passage barriers to enhance fish passage and allow fish to pass during low flows. Both weirs would be designed to pass low flows without restriction, preserve available storage for peak flood conditions, restrict discharge during the peak of a storm, increase upstream 100-year flood levels by less than five feet, and to overtop at 100-year flood conditions. The proposed weir would also detain flood flows for a short duration to delay the local peak discharge by approximately an hour. Designing the weirs to detain flood flows for even a short duration would significantly reduce the contribution of Antelope Creek discharges to the downstream peak flows on Dry Creek at Vernon Street in Roseville by as much as 800 cubic feet per second (cfs).

The proposed project configuration would cause 100-year water surface elevations to increase upstream from the weirs; this rise in water surface could reduce the area available for development on some private properties. However, the weir designs would limit this vertical increase in the 100-year base flood elevations to a maximum of less than five feet in the immediate upstream vicinity of both weirs. To minimize the effect of the rise in water surface elevation on these minimal areas, the District could either obtain flood easements from property owners to offset the effects of water being temporarily detained on these properties during flood events or place fill in a manner so as to maintain the land area available for development. The District is working with the property owners of the potentially affected properties to determine the most appropriate way to remedy impacts from this change in water surface elevation. In addition, one automated ALERT-type stream level and

precipitation gauge would be installed in the project study area. This gauge and an existing gauge near Antelope Creek Drive would help monitor the project's effectiveness over the long-term.

The project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event and these wells would remain subject to inundation as a result of the proposed project. In addition, no new monitoring wells would be subject to inundation as a result of the proposed project. The existing configuration of these monitoring wells is such that temporary inundation does not damage the wells or probes, or hamper the use of landfill facilities when the flooding event has ended. Further, the current protective features of these facilities are such that temporary flooding is not expected to damage the well or probe. Current sampling frequencies allow ample time for storm waters to recede and normal conditions to return prior to a sampling event. Therefore, no modifications to the existing monitoring wells would be necessary.

Recreation: The proposed recreational element of the project includes improving access to two existing trailheads by providing on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive. Approximately ten stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. During construction of the Phase 2 (Upper Weir), public access to the multi-use trail would be closed and rerouted. A detour for the trail would be established along Antelope Creek Drive, Creekside Ridge Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system. Each of the streets associated with the detour have a paved and striped bike lane along with sidewalks. Section 3.15 Recreation and Section 3.16 Transportation/Traffic of the Draft IS/MND provide a full analysis of potential construction-related recreation and bicycle transportation impacts. In addition, an interpretive exhibit would be installed in the project study area to help educate the public on the project as they utilize the existing multi-purpose trail system. The proposed recreational elements would be consistent with the Dry Creek Greenway Regional Vision Plan (Placer County 2004).

Aquatic and Riparian Habitat Restoration: As part of the proposed project, portions of the existing stream channel would be restored to provide enhanced habitat for anadromous (migratory) fish species. The proposed aquatic and riparian habitat restoration components would follow CDFW California Salmonid Stream Habitat Restoration Manual and the U.S. Department of Agriculture Natural Resources Conservation Service's Stream Corridor Restoration Principles, Processes and Practices. Aquatic and riparian habitat restoration areas would be located throughout the project study area and would include invasive species removal, stream corridor habitat improvements, fish passage improvements, and oak woodland habitat restoration.

1.4 TIMELINE FOR PROJECT IMPLEMENTATION

The Placer County Flood Control and Water Conservation District Board of Directors are expected to make a decision on certifying the MND and approving the project at its meeting on January 13, 2014. Assuming that the project is approved, completion of project-level environmental compliance, detailed engineering design, equipment procurement, permitting, design review and approval, construction of the Phase 2 (Upper Weir) is anticipated to take place between June 2014 and October 2014. Based on funding, the Phase 1 (Lower Weir) would be constructed at a later time likely between 2014 and 2019. Sufficient detailed engineering to allow the start of construction is expected to be completed in May 2014. It is assumed that federal, state, and local permitting would be completed concurrently with detailed design activities. It is assumed that contractor selection would take place soon after the approval of final detailed design packages for the project.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

The District received two comment letters on the Draft IS/MND during the public comment period. The following table lists the commenters and the dates of the letters.

The comment letters received on the Draft IS/MND, and the responses to the significant environmental issues raised, follow the table. Also included at the end of this chapter is a letter from the State Clearinghouse. The letter acknowledges that the District has complied with the State Clearinghouse draft environmental document review requirements, and indicates that two state agencies (same as commenting agencies) submitted comments through the State Clearinghouse by the close of the comment period on December 23, 2013. Both comment letters received are addressed in this Final IS/MND.

List of Commenters/Letters	
Commenter	Date of Letter
Central Valley Flood Protection Board (CVFPB)	December 10, 2013
Central Valley Regional Water Quality Control Board (CVRWQCB)	December 16, 2013

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

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Comment Letter from the Central Valley Flood Protection Board

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682



December 10, 2013

Mr. Brian Keating
Placer County Flood Control And Water Conservation
3091 County Center Drive, Suite 220
Auburn, California 95603

Subject: Antelope Creek Flood Control Project
SCH Number: 2013112064
Document Type: Mitigated Negative Declaration

Dear Mr. Keating:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to, or within, Antelope Creek which is under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- 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 (CCR Section 6);
- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);
- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

Mr. Brian Keating
December 10, 2013
Page 2 of 2

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway. The project should include mitigation measures to avoid decreasing floodway channel capacity.

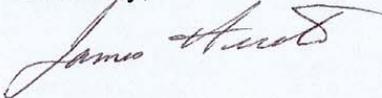
Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at <http://www.cvfpb.ca.gov/>. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at <http://gis.bam.water.ca.gov/bam/>.

If you have any questions, please contact me by phone at (916) 574-0651, or via e-mail at James.Herota@water.ca.gov.

Sincerely,



James Herota
Senior Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Response to Comment Letter from Central Valley Flood Protection Board

Thank you for your comment letter on the proposed project. The project will require a Central Valley Flood Protection Board permit and this requirement has been added to the list of project permits and approvals needed on page 2-17 of the Draft IS/MND (see Section 3 of this Final IS/MND). The District will work with the City of Roseville to process and obtain the Central Valley Flood Protection Board Permit per the Memorandum of Understanding that was established between the City of Roseville and the Board on December 10, 1976. The Memorandum of Understanding is included on the following pages.

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2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

FLOODWAY AGREEMENT BETWEEN THE RECLAMATION BOARD AND THE CITY OF ROSEVILLE

THIS AGREEMENT made and entered into this 10th day of December, 1976, by and between THE RECLAMATION BOARD OF THE STATE OF CALIFORNIA, hereinafter referred to as the "Board", and the CITY OF ROSEVILLE, hereinafter referred to as the "City".

RECITALS

1. There exists within the City of Roseville a portion of a waterway known as Dry Creek, and tributary streams thereto, known as Linda Creek, Cirby Creek, Strap Ravine, Miners Ravine, Secret Ravine, and Antelope Creek, all of which are hereinafter referred to as the "DRY CREEK SYSTEM".
2. The DRY CREEK SYSTEM is periodically subject to flooding, which flooding causes hazards to the health, safety, and welfare of the residents of CITY.
3. In view of the flood hazards of the DRY CREEK SYSTEM, CITY has zoned or will zone properties located in such districts with appropriate designations by Ordinances 1224 and 1227, which zoning limits or will limit the uses of such property in a manner best suited to potential flood hazards and in the best interests of the health, safety and welfare of the residents of CITY.
4. BOARD, pursuant to authority contained in the Water Code of the State of California, has responsibility of controlling encroachments in the waterway areas of the San Joaquin River, the Sacramento River, and all tributaries thereof, so as to provide for the free flow of water in such rivers and tributaries.
5. BOARD and CITY are interested in administering their various powers and duties with regard to the DRY CREEK SYSTEM in a manner designed to permit certain local controls over the DRY CREEK SYSTEM while providing BOARD the means thereby it may accomplish its responsibilities in connection therewith.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

WHEREFORE, in consideration of the mutual promises herein-
after set forth, BOARD and CITY do hereby agree as follows:

1. Geographical Limits of Board's Jurisdiction.

BOARD shall limit its jurisdiction to the area within the boundaries of the "Floodway District", set forth on the Official Zoning Map of CITY as "FW".

2. Existing Encroachments.

BOARD shall inventory all existing encroachments within the "Floodway District". All existing encroachments shall thereafter be authorized by a permit issued by CITY, unless either BOARD or CITY determines that any such encroachment may interfere with the free flow of water or constitute a material hazard likely to cause injury to persons or property during times of flood; in which case no such permit or a conditioned permit shall be issued by CITY. If such determination of interference or hazard is made by one party alone without the concurrence of the other, then the party making such determination shall cause the removal of the encroachment. If the parties concur in making such determination, then CITY shall cause the removal of the encroachment and BOARD shall share equally with CITY any expenses of causing such removal.

3. Applications for Permits to Use Land Within the "Floodway District".

All applications for permits to use land within the "Floodway District" will be received and processed by CITY in accordance with Ordinance No. 1224. CITY may request the advice of BOARD prior to taking action upon a permit application. BOARD shall not accept permit applications not issued by CITY.

4. Board Approval.

No permit issued by CITY for bridges, dams, utility crossings, excavations, levees, dikes, pipe, fills or other structures or facilities so designed as to obstruct or divert flood waters shall be effective until the expiration of ninety (90) days after

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

such permit draft has been mailed to BOARD for approval. Such submittal to BOARD will be accomplished by proper environmental documentation and by such supporting data as necessary to permit proper appraisal of the application. If BOARD takes no action on the permit draft within ninety (90) days, the permit shall be deemed approved.

5. City Inspection.

CITY will inspect all work done, under CITY permit to insure that all conditions of approval are met.

Once each year, BOARD and CITY shall inspect all structures and facilities constructed under permit, and CITY will notify the permit holder of any action necessary to comply with the provisions of the permit.

6. Modifications to "Floodway District".

No amendments to the boundaries of the "Floodway District", established by Ordinance No. 1227, or amendments to the activities or uses permitted therein by Ordinance No. 1224, shall be undertaken by CITY without concurrence by BOARD. In consulting with BOARD, CITY shall provide copies of any draft ordinances, studies, reports, data or other materials to BOARD so that BOARD is informed of the proposed amendments. Notice of such proposed amendments to change boundaries shall also be published and mailed as is required for zone boundary changes pursuant to the Zoning Ordinance of CITY.

7. Cancellation of Agreement.

CITY or BOARD may cancel this Agreement any time without penalty. In the event CITY or BOARD shall determine to cancel this Agreement, a public hearing shall first be held at a time and place acceptable to both parties. Notice of such hearing shall be given at least fourteen (14) days prior thereto by publishing notice of such hearing within a local newspaper of general circulation within CITY.

After such a public hearing, either or both of the parties hereto may give notice of intended cancellation of this

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Agreement, and this Agreement shall thereafter be terminated within thirty (30) days after the giving of such notice.

8. Authority.

Nothing herein shall be read to limit or impair the rights, duties, and responsibilities of the respective parties hereto, or any duly authorized agent or employee of the parties.

WHEREFORE, the parties hereto have executed this Agreement on the day and in the year first above written.

CITY OF ROSEVILLE

By [Signature]
Mayor

RECLAMATION BOARD, STATE OF CALIFORNIA

By [Signature]
President
By [Signature]
Secretary

ATTEST:

[Signature]
City Clerk

APPROVED AS TO FORM:

[Signature]
Board Counsel

APPROVED AS TO FORM:

[Signature]
City Attorney

APPROVED:

[Signature]
City Manager

APPROVED:

[Signature]
Public Works Director

APPROVED:

[Signature]
Planning Director

Comment Letter from Central Valley Regional Water Quality Control Board



Central Valley Regional Water Quality Control Board

16 December 2013

Brian Keating
Placer County
Flood Control and Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603

CERTIFIED MAIL
7012 2210 0002 1419 6233

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT MITIGATED NEGATIVE DECLARATION, ANTELOPE CREEK FLOOD CONTROL PROJECT, SCH NO. 2013112064, PLACER COUNTY

Pursuant to the State Clearinghouse's 25 November 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Mitigated Negative Declaration* for the Antelope Creek Flood Control 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.

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.

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER
11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley



Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

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. 97-03-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 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.

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.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Antelope Creek Flood Control Project
Placer County

- 3 -

16 December 2013

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, 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

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 will 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.

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.


for Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor’s Office of Planning and Research, Sacramento

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

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2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Response to Comment Letter from the Central Valley Regional Water Quality Control Board

Thank you for your comment letter on the proposed project. As stated on page 2-17 of the Draft IS/MND the project will require an amendment to Waste Discharge Requirement No. R5-2004-0104 for the City of Roseville Landfill and a National Pollutant Discharge Elimination System (NPDES) - General Construction Stormwater Permit from the Central Valley Regional Water Quality Control Board. The District will work with the Central Valley Regional Water Quality Control Board to process and obtain these permits.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

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Letter from State Clearinghouse



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA

Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

December 24, 2013

Brian Keating
Placer County Flood Control And Water Conservation
3091 County Center Drive, Suite 220
Auburn, CA 95603

Subject: Antelope Creek Flood Control Project
SCH#: 2013112064

Dear Brian Keating:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 23, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency
1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Document Details Report State Clearinghouse Data Base

SCH# 2013112064
Project Title Antelope Creek Flood Control Project
Lead Agency Placer County Flood Control And Water Conservation

Type **MND** Mitigated Negative Declaration
Description The project proposes to construct two primary flood control element - an Upper Weir and a Lower Weir, along with recreational and aquatic and riparian habitat restoration elements. The project is situated along Antelope Creek between the SR 65/Roseville Bypass and Atlantic Street. The primary objective of the project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Lead Agency Contact

Name Brian Keating
Agency Placer County Flood Control And Water Conservation
Phone 530 745 7592
email
Address 3091 County Center Drive, Suite 220
City Auburn **State** CA **Zip** 95603
Fax

Project Location

County Placer
City Roseville
Region
Lat / Long 38° 45' 45.7" N / 121° 15' 37.9" W
Cross Streets along Antelope Creek between SR65/Roseville Bypass and Atlantic St.
Parcel No. various
Township

	Range	Section	Base
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Proximity to:

Highways SR 65 and I-80
Airports
Railways UPRR
Waterways Antelope Creek
Schools
Land Use LUD: Open Space, Community Commercial, and Parks and Recreation

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 3 N; Air Resources Board; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Central Valley Flood Protection Board

Date Received 11/22/2013 **Start of Review** 11/22/2013 **End of Review** 12/23/2013

3 CORRECTIONS AND UPDATES TO THE DRAFT IS/MND

3.0 CORRECTIONS AND UPDATES TO THE DRAFT IS/MND

This chapter lists editorial text corrections to the Draft IS/MND. The listed changes are being made in response to comments on the Draft IS/MND. These changes do not alter any of the analysis or conclusions presented in the Draft IS/MND. Text deletions are shown with ~~strikethrough~~, and additions are shown with double underline.

3.1 EDITORIAL CORRECTIONS AND UPDATES

The following are editorial corrections and updates to the text since the Draft IS/MND was published. Figures that were included in the Draft IS/MND are not reprinted in this Final IS/MND unless they have been revised or added.

2.4 PERMITS AND APPROVALS NEEDED

The following permits, approvals, and reviews would be required for project construction:

Agency	Permit/ Approval/ Review
Federal	
United States (U.S.) Army Corps of Engineers	<ul style="list-style-type: none"> • Clean Water Act, Section 404 Nationwide Permits #3 and #27 for filling or dredging Waters of the United States • U.S. Fish and Wildlife Service and National Marine Fisheries Service - Federal Endangered Species Act, Section 7 compliance • State Historic Preservation Officer - National Historic Preservation Act, Section 106 compliance
State	
California Department of Fish and Wildlife	Section 1601 of the California Department of Fish and Game Code - Streambed Alteration Agreement
California State Water Resources Control Board	Clean Water Act, Section 401 - Water Quality Certification
<u>Central Valley Flood Protection Board</u>	<ul style="list-style-type: none"> • <u>Encroachment Permit (issued through City of Roseville Memorandum of Understanding)</u>
Central Valley Regional Water Quality Control Board	<ul style="list-style-type: none"> • Waste Discharge Requirement No. R5-2004-0104 Amendment for the City of Roseville Landfill • National Pollutant Discharge Elimination System (NPDES) - General Construction Stormwater Permit
Local	
City of Roseville	<ul style="list-style-type: none"> • Tree Permit • Coordination on project planning and consistency with local plans

Agency	Permit/ Approval/ Review
Placer County	<ul style="list-style-type: none"> • Solid Waste Facility Permit as part of the post-closure Maintenance Plan for the City of Roseville Landfill (administered through County Health Department/ Cal Recycle) • Coordination on project planning and consistency with local plans
Placer County Air Pollution Control District	Consultation for an Authority to Construct Permit

3.4 BIOLOGICAL RESOURCES

Mitigation Measure 7

Implementation of City of Roseville Tree Preservation Ordinance

To mitigate for impacts to mature oak trees in accordance with the City of Roseville Tree Preservation Ordinance, on-site mitigation, payment of in lieu fees (to the City of Roseville), or a combination of both options is proposed along with oak woodland restoration, which is included as part of the project. On-site mitigation plantings would be located within the proposed oak woodland restoration area identified on Figure 2-6. Mitigation plantings would be maintained and monitored in the same manner as the proposed restoration plantings described in Chapter 2. In-lieu mitigation fees would be deposited into either the native oak tree propagation fund or the non-native tree fund, or both funds as determined by the City of Roseville Planning Director.

A protected oak tree per the City of Roseville ordinance is a native oak tree equal to or greater than six inches diameter at breast height (DBH) measured as a total of a single trunk or multiple trunks. The City may condition any tree permit involving removal of a protected tree upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the DBH of the removed tree(s) where a 15 gallon tree shall replace one inch DBH of the removed tree; a 24-inch box tree shall replace two inches, and a 36-inch box tree shall replace three inches. The replacement trees shall have a combined diameter equivalent not less than the total diameter of the tree(s) removed. A minimum of 50 percent of the replacement requirement shall be met by native oaks. Up to 50 percent may be met by non-native species.

4.0 LIST OF PREPARERS

The Draft IS/MND and Final IS/MND for the project were prepared by HDR inc. in cooperation with the District. The following individuals contributed to this Final IS/MND:

- ▶ Linda Fisher, M.S., Environmental Task Lead
- ▶ Lee Frederiksen, P.E., Principal in Charge
- ▶ Paymon Fardanesh, P.E., Project Engineer
- ▶ Richard Dirks, P.E., Project Engineer
- ▶ Dawn LoBaugh, M.S., Quality Assurance/Quality Control
- ▶ Caitlin Nielsen, Document Production

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5.0 REFERENCES CITED

Placer County. 2004. Dry Creek Greenway Regional Vision Plan. Placer County Planning Department. Placer County, California. Final March 10, 2004.