

# 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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## INTRODUCTION

**Section 3.0** of this Draft EA/EIR contains individual sections that describe the potential environmental impacts of the Proposed Project alternatives described in **Chapter 2.0**. Each topical section describes the existing setting and background information necessary to help the reader understand the conditions that would cause an impact to occur. In addition, each section includes a description of how an impact is determined to be significant or not significant. Finally, the individual sections recommend mitigation measures/best management practices to reduce significant impacts. The following issue area sections are addressed in **Section 3.0**:

- Section 3.1 – Aesthetics (Including Visual Resources)
- Section 3.2 – Air Quality, Greenhouse Gases and Climate
- Section 3.3 – Biological Resources (Including Vegetation, Wildlife, Fisheries and Special Status Species)
- Section 3.4 – Cultural Resources
- Section 3.5 – Geology, Soils and Seismicity
- Section 3.6 – Hazardous Materials and Environmental Hazards (Including Toxic and Radiological Waste)
- Section 3.7 – Hydrology and Water Quality
- Section 3.8 – Land Use, Planning, and Community Effects
- Section 3.9 – Noise
- Section 3.10 – Recreation
- Section 3.11 – Traffic and Circulation
- Section 3.12 – Utilities and Service Systems
- Section 3.13 – Socioeconomic Conditions/Environmental Justice

## NEPA AND CEQA BASIS OF SIGNIFICANCE

The National Environmental Policy Act (NEPA) requires federal agencies to prepare an environmental impact statement (EIS) for any proposed action “significantly affecting the quality of the human environment.” The presence of significant environmental effects triggers the requirement to prepare an EIS; the absence of significant environmental effects allows a federal agency to prepare a Finding of No Significant Impact (FONSI). According to the NEPA Regulations adopted by the President’s Council on Environmental Quality (CEQ) (40 CFR 1500-1508), the term “significantly” requires consideration of both context and intensity (40 CFR 1508.27). The context, referred to as the “affected environment/ environmental setting” in this document, is the geographic, social, and environmental setting within which the project may have effects. Intensity is the severity of the potential impact, considered in context. The “thresholds/basis of significance” outlined within the issue area chapters of **Section 3.0** have been developed to satisfy the requirements of both NEPA and the California Environmental Quality Act (CEQA), and are primarily adapted from Appendix G of the CEQA Guidelines and relevant agency thresholds.

## CUMULATIVE IMPACTS

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Both CEQA and NEPA require that cumulative impacts be discussed when the project's incremental effect is cumulatively considerable. These impacts are discussed, when appropriate, in the relevant issue areas discussed in **Section 3.0**.

The cumulative setting includes past, present and reasonably foreseeable future actions not part of the proposed action but related to cumulative effects. This includes projected growth and zoning as detailed in the Placer County General Plan (Placer County, 2008), Horseshoe Bar/Penryn Community Plan (Placer County, 2005a), and the Granite Bay Community Plan (Placer County, 2012), discussed in **Section 3.8**; and the wastewater flows from build-out within the South Placer Wastewater Authority (SPWA) service area projected within the SPWA Systems Evaluation (SPWA, 2009), discussed in **Section 4.2**. There is one reasonably foreseeable development project proposed within two miles of the project area:

- Granite Bay Garage Condos & Self Storage Project – The project proposes to construct, in two phases, a 74,900 square-foot garage condominium and a 73,975 square-foot self-storage facility on an 8.7-acre property located approximately 0.17 miles east of the Douglas Boulevard/ Auburn-Folsom Road intersection.

Additionally, the cumulative context includes reasonably foreseeable wastewater treatment plant upgrade and decommissioning projects that have the potential to effect water quality in the Dry Creek and Sacramento River watersheds. This includes but is not limited to the following projects in Placer County:

- Abandonment of the Newcastle WWTP – 2012
  - Wastewater will be conveyed to the SPWA Dry Creek Regional WWTP in the City of Roseville.
- Abandonment of the Applegate WWTP – 2013
  - Wastewater will be conveyed to the SMD 1 WWTP until it is abandoned, at which time wastewater will be directed to the City of Lincoln's Regional WWTP.
- Abandonment of the SMD 1 WWTP – 2015
  - WWTP will be decommissioned and a pump station will be constructed to convey wastewater to the City of Lincoln's Regional WWTP.

## INDIRECT EFFECTS

The CEQ regulations for implementing the National Environmental Policy Act (NEPA) define indirect effects as impacts that are caused by an action that is later in time or farther removed in distance, but is a reasonably foreseeable result of the proposed project (40 C.F.R. 1508.8). Similarly, CEQA *Guidelines* Section 15358(2) defines indirect effects as those "which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced change in the pattern of land use,

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population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.” Examples of indirect effects include effects resulting from off-site mitigation or community growth induced by the implementation of a project. Indirect effects resulting from the Proposed Project associated with growth inducement are discussed in **Section 4.2**. Indirect effects resulting from off-site mitigation are limited to re-vegetation and tree plantings which are assumed to occur within the proposed project footprint; therefore, effects are described in **Section 3.0**. No additional indirect effects would result from implementation of the project alternatives. Effects resulting from increased discharge of treated effluent at the Dry Creek WWTP are considered a direct effect of the Proposed Project and are described in **Section 3.0**.

## 3.1 AESTHETICS (INCLUDING VISUAL RESOURCES)

This section addresses the potential for the proposed project alternatives to impact the aesthetics and visual resources in the vicinity of the project site. Following an overview of the affected environment in **Subsection 3.1.1** and the regulatory framework in **Subsection 3.1.2**, project-related impacts and recommended mitigation measures/BMPs are presented in **Subsection 3.1.3**.

### 3.1.1 AFFECTED ENVIRONMENT / ENVIRONMENTAL SETTING

#### Regional Setting

The project site is located within the western portion of Placer County (County). The project site and vicinity are generally characterized by the flat terrain of the Central Valley and the lower elevation foothills of the Sierra Nevada mountain range.

#### Local Setting

The Placer County Sewer Maintenance District 3 (SMD 3) Wastewater Treatment Plant (WWTP) site is bordered by Auburn-Folsom Road along the eastern border, undeveloped open space to the south/southwest, and a mobile home park to the north and west. Miners Ravine traverses the WWTP site along the western boundary of the WWTP. The visual characteristics of the area consist of open space, non-native grassland, oak woodland, and rural and urban residential development.

Several barriers are currently present that provide a visual separation between the WWTP and the surrounding residential developments. A vegetated buffer, consisting of shrubs and mature oak trees, is located on the eastern border of the WWTP site, along Auburn-Folsom Road. This buffer, along with the riparian vegetation along Miners Ravine, shields open views of the WWTP from the nearby residences (**Figure 3.1-1**).

The development of the new SMD 3 sewer force mains would occur within the rural residential County setting to the south of the WWTP site. A majority of the three project alternative alignments, as described below, would occur within existing public right of way easements within Auburn-Folsom Road, Joe Rodgers Road, and/or Willow Lane. These roadways are surrounded predominantly by residential and open space land uses. A small portion of Alternative A alignment would be located underground within undeveloped private property designated as "open space", adjacent to the existing SMD 2 force main and within an existing Placer County utility easement.

#### ***Sensitive Receptors***

A sensitive receptor is defined as an individual that is especially sensitive to changes in aesthetic qualities, which could include for example, changes in lighting, shadows, or surrounding visual character. Land uses that serve sensitive receptors, i.e., residential units, are located in the vicinity of the project site. The tree line and vegetated buffer surrounding the boundary of the WWTP site acts as visual



View from Auburn Folsom Road towards the SMD 3 site and approximate location of proposed pump station.



Typical view of the properties surrounding the proposed underground alignments to be placed within the existing right of way.

barriers that impede views of the WWTP site from residential uses to the west and the north. However, residences along Sequoia Drive adjacent, and to the north and northwest of the site have unobstructed views of the existing WWTP. The proposed force main would be located underground; therefore, visual impacts on surrounding sensitive receptors (residential units) would only occur during temporary construction activities.

#### 3.1.2 REGULATORY FRAMEWORK

The National Environmental Policy Act (NEPA) of 1969 as amended, establishes that the Federal government uses all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S.C. 4331(b)(2)]. To further emphasize this point, the United States Army Corps of Engineers (USACE) in its implementation of NEPA directs that final decisions regarding projects are to be made in the best overall public interest, taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of aesthetic, natural, scenic and historic environmental qualities.” [CA Public Resources Code Section 21001(b)]

##### ***California’s Scenic Highway Program***

California’s Scenic Highway Program was created by the California State Legislature in 1963 and is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated “scenic” depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers’ enjoyment of the view. There are no state-designated highways in the immediate project area.

##### ***Relevant Plans and Policies***

The WWTP site and the northern portion of the force main are located in an unincorporated County area in the Horseshoe Bar/Penryn Community Plan Area, while the majority of the force main falls within the Granite Bay Community Plan Area; therefore, land uses on the WWTP site and along the alternative alignments are regulated by the Placer County General Plan and Zoning Ordinance as well as the Granite Bay Community Plan and Horseshoe Bar Community Plan.

##### ***Placer County General Plan***

The Placer County General Plan *Visual and Scenic Resources Element* establishes goals and standards for visual quality (Placer County, 2008a). Applicable goals and policies are as follows:

##### **Goal**

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

#### **Policy**

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

#### ***Horseshoe Bar/Penryn Community Plan***

The Horseshoe Bar/Penryn Community Plan establishes goals and policies for visual resources within the unincorporated Community Plan area, including portions of the project site (Placer County, 2005). Applicable goals and policies are as follows:

#### **Goals: Community Design Element**

- (1) Protect and preserve the unique character of the community. Maintain the identity of the plan area as a scenic, tranquil, rural-residential community compatible with the area's physical constraints and natural features.
- (2) Preserve or establish a landscaped (native or native-appearing species) scenic corridor along Auburn-Folsom Road and other circulation routes to enhance and maintain the existing scenic qualities of the area and provide for natural noise buffers.
- (3) Preserve, enhance, and protect the scenic resources visible from scenic routes in the plan area such as I-80, Auburn-Folsom Road, and other major roadways (i.e. King, Horseshoe Bar, Newcastle, English Colony, Taylor Roads) to preserve existing vistas of the Sacramento valley, Loomis basin foothills, and the Sierra Nevada mountain range, as well as other local views which are important to maintaining the community's rural identity (General Community Goal #14).

#### ***Granite Bay Community Plan***

The Granite Bay Community Plan establishes goals and standards for visual quality for unincorporated County, including portions of the project site (Placer County, 2012). Applicable goals and policies are as follows:

#### **Goals: Community Design Element**

1. Protect and preserve the unique rural character of the community and maintain the identity of Granite Bay as a scenic, tranquil, family-oriented rural/residential community compatible with the area's physical constraints and natural features.
2. Safeguard and preserve important views, natural waterways and riparian habitat.
3. Ensure that development complements the natural setting and reinforces the rural and natural identity of Granite Bay.

#### **Goals: Natural Resource Conservation Element**

1. Preserve and protect the natural features and resources of the community, which is essential to maintaining the quality of life within the community.

6. Encourage public and private stewardship and partnerships directed to restoring, enhancing, and maintaining the natural environment.

**Policy:**

3. Removal of vegetation shall be minimized and where removal is necessary, replanting for erosion control, maximizing reoxygenation, and retaining the aesthetic qualities of the community.

**Scenic Roads**

In the vicinity of the project alignments, Auburn-Folsom Road is designated as a Scenic Road (Placer County, 2005). This designation within the Granite Bay Community Plan establishes design parameters that dictate development standards along identified roadways.

### 3.1.3 ENVIRONMENTAL CONSEQUENCES / IMPACTS AND MITIGATION MEASURES/BMPs

#### METHODOLOGY

Impacts to a viewshed are determined by subjective, not objective, conclusions. While the viewing experience is subjective in nature, the application of the criteria below allows for an objective baseline assessment of the visual environment and subsequent visual impacts of the Proposed Project. The visual experience within each view of the project site is comprised of the following constituent elements:

1. Clarity in Line of Sight—the overall visibility of the object within the viewshed, influenced by such factors as trees, buildings, topography or any other potential visual obstruction.
2. Duration of Visibility—the amount of time the object is exposed to viewers within the viewshed. For example, a passing commuter will experience a shorter period of viewing time than a resident within the viewshed.
3. Proximity of the Viewer—the effects of foreshortening due to the distance of the viewer from the object will influence the dominance of the object in the perspective of the viewer.
4. Number of Viewers—the number of viewers anticipated to experience the visual character of the object.

#### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to visual resources have been developed based on *Appendix G* of the California Environmental Quality Act and relevant agency thresholds. Impacts associated with aesthetics would be considered significant if the Proposed Project would:

- Result in the substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views.

#### Effects Found Not to be Significant

The Initial Study (**Appendix C**) concluded that the Proposed Project would be constructed within the existing footprint of the WWTP site and previously developed areas beneath existing roadways and road shoulders; therefore, construction of the Proposed Project would not result in significant effects on scenic vistas, or scenic resources. These effects are therefore not considered within this EA/EIR.

#### Project Specific Impacts

##### Impact

#### 3.1-1 The Proposed Project could substantially degrade the existing visual character or quality of the site and its surroundings.

##### *No Project/ No Action Alternative*

Under the No Project/ No Action Alternative, the SMD 3 WWTP would not be decommissioned and the new pumping station and wastewater conveyance facilities would not be constructed. Therefore, no changes to the visual character or quality of the site and surroundings would occur.  
**No Impact.**

##### *Alternative A Hidden Valley Force Main Alignment*

The primary views of the WWTP site are experienced by residences and commuters along Auburn-Folsom Road, as well as residences located along Sequoia Drive in the immediate vicinity of the project site. The views of the force main alignment (during construction only) would be experienced by viewers traveling along Auburn-Folsom Road, Willow Lane, Twin Rocks Road, and Joe Rodger's Road. The underground conveyance system proposed under Alternative A would only be visible above ground only where clean-outs are located along the pipeline.

The construction and operation of the new pump station on the WWTP and the underground force main would not degrade the existing visual character or quality of the project site or surrounding area. Construction-related aesthetic impacts, including the use of large sized heavy equipment, would be temporary in nature, as the development of the pipeline would occur along a linear area and construction would not occur in one area over an extended period of time. The development of the pump station and emergency storage facilities on the WWTP site would not degrade the visual character of the project site as these features are similar to those already existing on the WWTP site, and primary views would be shielded by the existing vegetative buffer that extends along Auburn-Folsom Road. Portions of this vegetative buffer, located immediately

adjacent to the pump station would be cleared to accommodate construction equipment and provide clearance for the proposed force main. However, the portion of the vegetative landscape buffer located between the pump station and the roadway would remain in place, which would minimize views of the SMD 3 facilities from sensitive receptors travelling along Auburn-Folsom Road. This would be consistent with Goal 2 of the Horseshoe Bar Community Plan Community Design Element which aims to “Preserve or establish a landscaped (native or native appearing species) scenic corridor along Auburn-Folsom Road”. A less than significant impact to the visual character of the project site and surroundings would occur under Alternative A. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

The project components located at the existing SMD 3 WWTP site, including the pump station, emergency storage facilities, and WWTP decommissioning activities are identical to those described under Alternative A. Force main construction and operation under Alternative B would be similar to Alternative A and therefore would have the similar visual impacts. A less than significant impact to the visual character of the project site and surroundings would occur under Alternative B. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

The project components located at the existing SMD 3 WWTP site, including the pump station, emergency storage facilities, and WWTP decommissioning activities are identical to those described under Alternative A. Force main construction and operation under Alternative C would be the similar to Alternative A and therefore, would have similar visual impacts. A less than significant impact to the visual character of the project site and surroundings would occur under Alternative C. **Less-Than-Significant Impact.**

### **Impact**

#### **3.1-2 The proposed pump station at the WWTP site could create a new source of substantial light or glare which could adversely affect day or nighttime views.**

#### ***No Project/No Action Alternative***

Under the No Project/No Action Alternative, the SMD 3 WWTP would not be decommissioned and the new pumping station and wastewater conveyance facilities would not be constructed. No new sources of light or glare would be developed. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

The WWTP site currently contains existing wastewater treatment facilities that are illuminated for safety, security and to support work areas. The Proposed Project would introduce sources of light equivalent to existing lighting on the property for the same purposes, including site and building lighting. None of the surfaces proposed for the project are reflective or would produce

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glare. Existing light sources at the WWTP that are not required for operation of the pump station and emergency storage facilities, would be removed during decommissioning activities.

The Proposed Project would result in day and nighttime use of the project site that would continue to generate nighttime lighting in the project area. Lighting elements would blend into the environment by day and on-site structure lighting would be operational at night.

Although there are existing sources of light at the WWTP, the potential exists for sensitive receptors, including residences and vehicles traveling on Auburn-Folsom Road, to be affected by new lighting sources resulting from the Proposed Project if they are not properly designed to prevent off-site light scatter. **Mitigation Measure 3.1-2** requires the incorporation of design techniques that will reduce the intensity of new sources of light. After mitigation, potential impacts to day and nighttime views associated with lighting on the project site would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

The project components located at the existing SMD 3 WWTP site, including the pumping station, emergency storage facilities, and WWTP decommissioning activities are identical to those described under Alternative A. Potential impacts associated with off-site light scatter would be reduced to less than significant with implementation of **Mitigation Measure 3.1-2**. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

The project components located at the existing SMD 3 WWTP site, including the pumping station, emergency storage facilities, and WWTP decommissioning activities are identical to those described under Alternative A. Potential impacts associated with off-site light scatter would be reduced to less than significant with implementation of **Mitigation Measure 3.1-2**. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.1-2: Implement Best Management Practices when Installing New or Upgraded Lighting.** Design plans shall configure exterior light fixtures to emphasize lower intensity light. Lighting shall be directed downward in order to minimize glare on adjacent uses and minimize impacts to night sky views. All exterior lighting shall be a "full cut-off" design so that the light source is fully screened from off-site. Any freestanding lights shall be fixed (non-tilting) to prevent glare, and a flat lens shall be used (no drop lenses).

## Cumulative Impacts

### Impact

- 3.1-3 The project in combination with cumulative development surrounding the project site, could impact visual resources and create new sources of light and glare.**

#### ***Alternative A Proposed Project, Alternative B, and Alternative C***

The project vicinity is designated for open space and rural residential uses. Potential cumulative projects in the vicinity of the project site include growth within the unincorporated County according to the build out projections in the County's General Plan. Cumulative projects within the County will be developed pursuant to the permitting process and regulations and subject to separate environmental review under CEQA. The proposed project alternatives would not alter the visual character of the project alignments and surroundings through construction or operation, as the buried sewer conveyance system would not be visible and the pump station emergency storage facilities would be located within the previously disturbed and developed SMD 3 WWTP site and shielded by the existing landscape buffer. **Mitigation Measure 3.1-2** requires low intensity lighting for new structures developed within the WWTP site. Therefore, the proposed project alternatives would not contribute to cumulatively significant impacts associated with visual resources. **Less-Than-Significant Impact with Mitigation.**

### Mitigation Measures/BMPs

#### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.1-3: Implement Mitigation Measure 3.1-2.**

## 3.2 AIR QUALITY, GREENHOUSE GASES, AND CLIMATE

This section addresses the potential for the proposed project alternatives to impact air quality and climate change. Following an overview of the existing air quality and climate change settings in **Subsection 3.2.1** and the relevant regulatory setting in **Subsection 3.2.2**, project-related impacts and recommended mitigation measures/BMPs, if any, are presented in **Subsection 3.2.3**.

### 3.2.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

#### Regional Setting

The project site is located in the Sacramento Valley Air Basin (SVAB), which includes part of Placer and Sutter, Sacramento, Yolo, Shasta, Tehama, Glenn, Colusa, and Butte counties. The project site is under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD), the California Air Resource Board (CARB), and the US Environmental Protection Agency (EPA).

#### Regional Meteorology

The project site is located east of the coastal mountain range outside the direct influences of the San Francisco bay and near the eastern edge of the SVAB. Hot dry summers and mild rainy winters characterize the Mediterranean climate of the Sacramento Valley (Valley) region. During the year, the temperature may range from 20 to 115 degrees Fahrenheit (°F) with summer highs usually in the 90s and winter lows below freezing. Average annual rainfall is approximately 20 inches with some snowfall experienced during winter months. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants when meteorological conditions cause air stagnation. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the Valley. The lack of surface wind in combination with reduced vertical flows from cooler land masses during these periods, reduces the influx of outside air allowing air pollutants to concentrate in the stagnate air above the Valley floor. The breathable air concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air, fog, and pollutants near the ground.

#### Regional Air Quality

Criteria Air Pollutant (CAP) (defined below in Section 3.2.2) emissions are estimated and documented through the combined effort of the PCAPCD and CARB. CAP emissions for all of Placer County are presented by CARB on its Almanac Emissions Projection Data website (CARB, 2010). **Table 3.2-1** summarizes estimated 2010 CAP emissions of ozone, carbon monoxide (CO), reactive organic gases (ROGs), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and particulate matter 10 and 2.5 microns in size (PM<sub>10</sub> and PM<sub>2.5</sub>) from major categories of air pollutant sources. For each CAP, estimated emissions are presented in tons per day for Placer County.

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**TABLE 3.2-1**  
SVAB EMISSIONS INVENTORY

Emission Source Categories	Criteria Pollutants					
	ROGs	CO	NO <sub>2</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	Tons per Day					
Fuel Combustion	3.3	38.6	32.2	1.0	3.1	3.1
Waste Disposal	0.6	0.1	0.1	0.1	-	-
Cleaning and Surface Coatings	9.9	0.1	-	-	0.1	0.1
Petroleum Production and Marketing	12.5	0.6	2.3	-	-	-
Industrial Processes	5.6	11.9	2.8	0.5	14.3	7.0
Solvent Evaporation	35.6	-	-	-	-	-
Miscellaneous Processes (wood burning)	26.5	292.3	9.3	0.8	201.0	55.0
On-Road Motor Vehicles	55.1	509.0	142.9	0.4	6.4	4.9
Other Mobile Sources	42.6	252.2	80.1	0.5	5.2	4.5
<b>Total Placer County Emissions Inventory</b>	<b>191.8</b>	<b>1104.8</b>	<b>209.7</b>	<b>3.4</b>	<b>230.1</b>	<b>74.5</b>
Source: CARB, 2012.						

#### **Attainment Status**

CAPs for which an air basin/region does not meet national or state air quality standards are known as pollutants of concern. Placer County is located in three air basins, the Sacramento Valley Air Basin (SVAB) and the Mountain Counties Air Basin (MCAB), and the Lake Tahoe Air Basin (LTAB). The PCAPCD monitors all basins within Placer County for exceedance of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The project site is located in the SVAB and therefore, the MCAB is not further addressed in this EA/EIR. As shown in **Table 3.2-2**, the SVAB is in attainment or is unclassified for all CAPs under the NAAQS with the exception of 8-hour ozone, which is designated by the EPA as serious nonattainment. The SVAB is in attainment or is unclassified for all CAPs under the California Ambient Air Quality Standards (CAAQS) with the exception of 1- and 8-hour ozone and PM10. Because the SVAB expect to reach attainment for ozone by the year 2018 the EPA classified the SVAB serious nonattainment under the NAAQS for ozone. However, in 2008 the Sacramento Municipal Air Quality Management District (SMAQMD) petitioned the EPA to reclassify Placer County as severe nonattainment with an attainment date of 2019. As of January of 2012 the EPA has not reclassified Placer County severe nonattainment. The NAAQS and CAAQS are further addressed in **Section 3.2.2**.

#### **Ozone**

Ozone is created in the presence of sunlight through a photochemical reactions involving reactive organic gas (ROG) and nitrogen oxides (NO<sub>x</sub>). ROGs and NO<sub>x</sub> are a result of incomplete combustion of fossil fuels, which is the largest source of ground-level ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. As a photochemical pollutant, ozone is formed only during daylight hours under appropriate conditions, but is destroyed throughout the day and night. Ozone is considered a regional pollutant, as the reactions forming it take place over time and are often most noticeable downwind from the sources of the emissions.

**TABLE 3.2-2**  
SVAB ATTAINMENT STATUS

<b>Pollutant</b>	<b>CAAQS</b>	<b>NAAQS</b>
Ozone	<i>Nonattainment (1- and 8-hour)</i>	<i>Nonattainment (8-hour, Serious)</i>
PM <sub>10</sub>	<i>Nonattainment</i>	Attainment
PM <sub>2.5</sub>	Attainment	Attainment
CO	Unclassified	Attainment/ Unclassified
NO <sub>2</sub>	Attainment	Attainment/ Unclassified
SO <sub>2</sub>	Attainment	Unclassified
Pb	Attainment	Unclassified
Sulfates	Attainment	N/A
Hydrogen Sulfide	Unclassified	N/A
Vinyl Chloride	Attainment	N/A
Visibility Reducing Particles	Unclassified	N/A
Source: CARB, 2011.		

### ***Particulate Matter***

Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution, also known as particulate matter, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). The size of particles is directly linked to their potential for causing health problems. Particulate matter less than 10 micrometers ( $\mu\text{m}$ ) in diameter (PM<sub>10</sub>) poses a great public health concern, because they can traverse deep into the lungs.

### ***Monitoring Data***

Monitors that collect air quality data to assess compliance with Federal and state air quality regulations are located at stations throughout the PCAPCD and California. Some monitoring stations collect data on all six Federal and four additional California CAPs: Sulfates, Hydrogen Sulfide, Vinyl Chloride, and Visibility Reducing Particles; while others only collect data for certain pollutants of concern. **Table 3.2-3** presents data collected at the Auburn-Dewitt-C Avenue monitoring station for 1- and 8-hour ozone and at the Roseville-North Sunrise Boulevard monitoring station for PM<sub>10</sub>, which are the closest monitoring stations to the project site.

### ***Naturally Occurring Asbestos***

Placer County has been determined to contain asbestiform minerals belonging to the serpentine or amphibole mineral groups. Asbestos is classified as a known carcinogen (cancer causing) by the EPA and State and is classified by CARB as a toxic air contaminant. According to the Placer County asbestos map, the project site is located in an area which is least likely to contain naturally occurring asbestos; however, the map indicates the presences of a fault or shear zone located just north of Twin Rocks Rock (Placer County, 2008a). The fault or shear zone is in the path of the force main alignment. As indicated

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on the map the fault or shear zone results in an increased likelihood for the presence of natural occurring asbestos.

**TABLE 3.2-3**  
EXCEEDANCES OF NAAQS AND CAAQS AT NEAREST MONITORING STATION IN SVAB

Pollutant	Thresholds (PPM)		2008	2009	2010
<b>O<sub>3</sub> (8-hour)</b>	0.075 (NAAQS)	Highest Concentration (ppm)	0.112	0.090	0.089
		Days >NAAQS	21	14	10
	0.070 (CAAQS)	Highest Concentration (ppm)	0.112	0.090	0.090
		Days >CAAQS	36	27	19
<b>O<sub>3</sub> (1-hour)</b>	0.09 (CAAQS)	Highest Concentration (ppm)	0.124	0.108	0.107
		Days >CAAQS	14	5	5
<b>PM<sub>10</sub></b>	150 (NAAQS)	Highest Concentration (ppm)	74.2	33.5	36.3
		Days >NAAQS	0	0	0
	50 (CAAQS)	Highest Concentration (ppm)	73.9	33.6	35.1
		Days >CAAQS	1	0	0
Source: CARB, 2011.					

#### **Odor**

While odors rarely cause any physical harm, they can be unpleasant and can lead to considerable distress among the public. Accordingly, no requirements for odor control for proposed projects are included in Federal or state air quality regulations and local air districts typically do not establish rules or standards related to odor emissions.

Types of operations that are typically evaluated for odor concerns include waste processing and heavy industrial facilities such as wastewater treatment plants (WWTPs), landfills and composting facilities, chemical manufacturing, and confined animal facilities.

#### **Climate Change**

The extent to which human activities affect global climate change is a subject of considerable scientific debate. It is anticipated that the average global temperature could rise 0.6° C (33.0° F) to 4.0° C (39.2° F) between the years 2000 and 2100 (IPCC, 2007). The *Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report* identifies anthropogenic GHGs as a contributing factor to changes in the Earth's climate (IPCC, 2007).

Currently there are no GHG inventories for Placer County. Placer County has not developed a Climate Action Plan to address GHG inventories and meet California reduction requirements.

Primary sources of GHG emissions in the region of the Proposed Project include vehicles, trucks, airplanes, natural gas dispensing stations, and WWTPs; however, there are many other sources of GHG emissions in the region.

#### ***Toxic Air Contaminants and Hazardous Air Pollutants***

Hazardous Air Pollutants (HAPs) and Toxic Air Contaminants (TACs) are two groups of pollutants. HAPs are a specific group of airborne chemicals developed by the EPA and TAC is a list of airborne chemicals developed by CARB. Sources of HAPs and TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. TACs and HAPs are less pervasive in the urban atmosphere than the criteria air pollutants, but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Currently, there are over 188 HAPs listed by the EPA and 244 TACs listed by CARB.

The majority of the estimated health risk from HAPs and TACs can be attributed to relatively few compounds, the most important being diesel particulate matter (DPM). Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are particulate matter that includes carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and over 40 other cancer causing substances. Exposure to DPM is a potential health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems.

#### ***Sensitive Receptors***

Sensitive receptors are generally defined as land uses that house or attract people who are susceptible to experience adverse impacts from air pollution emissions and, as such, should be given special consideration when evaluating air quality impacts from projects. Sensitive receptors include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent homes, parks and recreational facilities, and residential areas are examples of sensitive receptors.

Land uses in the immediate vicinity of the project site consist of open space and residences. Residences border the north and northwest boundary of the SMD 3 WWTP. The closest residence to the WWTP is approximately 50 feet northwest of the northwest property line. Residences are located along Phase I and II pipeline routes. Some residences are located within 50 feet of the pipeline route. The nearest school, Placer Elementary School is approximately 0.8 miles from SMD 3 WWTP. There are no other sensitive receptors within two miles of the project site.

### **3.2.2 REGULATORY FRAMEWORK**

#### **Federal**

The Clean Air Act (CAA) was enacted in 1970 and last amended in 1990 (42 USC §7401 et seq.) for the purposes of protecting and enhancing the quality of the nation’s air resources to benefit public health, welfare, and productivity. The CAA establishes a framework for national, state and local air pollution control efforts. Basic components of the CAA and its amendments include NAAQS for CAPs, requirements for state implementation plans (SIP’s) to meet the NAAQS, motor vehicle emissions

standards, stationary source emissions standards and permits, and enforcement provisions. The EPA is the Federal agency responsible for establishing the NAAQS, overseeing state air programs as they relate to the CAA, approving SIP's, and setting emissions standards for mobile sources under Federal jurisdiction.

#### ***National Ambient Air Quality Standards***

In 1971, the EPA, under authority of the CAA, developed primary and secondary NAAQS. The primary NAAQS were established to protect the public health with an adequate margin of safety and the secondary standards were established to protect the public welfare from known or anticipated adverse effects (aesthetics, crops, architecture, etc.) (42 USC §7409[b]). The EPA designated six pollutants of primary concern as CAPs: carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), lead (Pb), and particulate matter (PM). The NAAQS are time-averaged maximum ambient air concentrations. For various CAPs, more than one time-averaged maximum concentration has been established by the EPA in order to address the typical exposures to the population from natural and anthropogenic sources in the environment. Concentrations above these time-averaged maximum concentrations are anticipated to cause adverse health effects to sensitive receptors. The violation criteria established by the EPA are based upon these time-averaged maximum concentrations specific to each CAP. For example, the NAAQS for ozone must be exceeded on more than three days in three consecutive years in order to constitute a violation. On the other hand, if the NAAQS for CO are exceeded on more than one day in any given year, a violation has occurred. **Table 3.2-4** presents the violation criteria for the various averaging times of the NAAQS for each CAP. The EPA allows states the option to develop independent standards only if the standards are more stringent than the NAAQS. California has selected to designate independent ambient air quality standards. These standards are not applicable to trust land or the Proposed Project itself.

#### ***Federal General Conformity***

Title 40 Part 93 of the Code of Federal Regulations (CFR) was promulgated in order to determine conformity of Federal actions to the applicable SIP. A lead agency must make a determination that a Federal action conforms to the applicable implementation plan before the action is taken. A conformity determination is required for each pollutant where a total of direct and indirect emissions of CAPs in a nonattainment or maintenance area caused by the Federal action are greater than de minimis thresholds as listed in CFR Section 93.153(b).

The thresholds established in the general conformity rule provide simple and direct guidance for Federal agencies to ensure that they comply with an approved SIP. The general conformity rule includes a procedure for determining whether the rule is applicable to the actions of a Federal agency. The procedure has two phases:

1. The Conformity Review process, which entails a review of each analyzed alternative to assess whether a full conformity determination is necessary, and
2. The Conformity Determination process, which demonstrates how an action would conform to the applicable SIP.

### 3.0 Affected Environmental and Environmental Consequences

**TABLE 3.2-4**  
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS AND VIOLATION CRITERIA

Pollutant	Averaging Time	Standard		Standard		Violation Criteria	
		parts per million		microgram per cubic meter			
		CAAQS	NAAQS	CAAQS	NAAQS	CAAQS	NAAQS
Ozone	1 hour	0.09	N/A	180	N/A	If exceeded	N/A
	8 hour	0.07	0.075	137	147	N/A	If exceeded on more than 3 days in 3 years
CO	8 hour	9	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
	1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
NO <sub>2</sub>	Annual Mean	0.03	0.053	57	100	N/A	If exceeded
	1 hour	0.18	N/A	N/A	N/A	If exceeded	N/A
SO <sub>2</sub>	24 hour	0.04	N/A	105	N/A	If exceeded	N/A
	1 hour	0.25	0.075	655	196	N/A	If exceeded on more than 1 day per year
PM <sub>10</sub>	Annual Mean	N/A	N/A	20	N/A	If exceeded	If exceeded
	24 hour	N/A	N/A	50	150	N/A	If exceeded on more than 1 day per year
PM <sub>2.5</sub>	Annual arithmetic mean	N/A	N/A	12	15	N/A	If exceeded
	24 hour	N/A	N/A	N/A	35	N/A	If exceeded on more than 1 day per year
Pb	Calendar Quarter	N/A	N/A	N/A	1.5	N/A	If exceeded
	30 Days	N/A	N/A	1.5	60	If exceeded	N/A
Hydrogen Sulfide	1 hour	0.03	N/A	42	N/A	If exceeded	N/A
Vinyl Chloride	24 hour	0.01	N/A	26	N/A	If exceeded	N/A
Sulfate	24 hour	N/A	N/A	25	N/A	N/A	N/A
Visibility Reducing Particles	8 hour	*	N/A	*	N/A	N/A	N/A

\* Extinction coefficient of 0.23 per kilometer-visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent.  
Source: CARB, 2011a.

The first step compares emissions estimates for the project to the appropriate general conformity *de minimis* threshold based on nonattainment type. If the emission estimates from step one is below the thresholds, then a general conformity determination is not necessary and step two is not required. A Conformity Review through comparison of project emissions to federal conformity *de minimis* thresholds was completed and is summarized in **Section 3.2.3**. As noted therein, the project would not exceed the thresholds; therefore, a Conformity Determination for the Proposed Project is not necessary.

#### ***Federal Class I Areas***

Title 1, Part C of the CAA was established, in part, to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value. The CAA designates all international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres as “Class I areas.” The CAA prevents significant deterioration of air quality in Class I areas under the Prevention of Significant Deterioration (PSD) program. The PSD Program protects Class I areas by allowing only a small increment of air quality deterioration in these areas by requiring assessment of potential impacts on air quality related values of Class I areas.

Any major source of emissions within 100 kilometers (km) (62.1 miles) from a Federal Class I area is required to conduct a pre-construction review of air quality impacts on the area(s). A “major source” for the PSD program is defined as a facility that will emit (from direct stationary sources) 250 tpy of regulated pollutant. For certain industries, these requirements apply to facilities that emit (through direct stationary sources) 100 tpy or more of a regulated pollutant. Mobile sources (i.e. vehicle emissions) are by definition not stationary sources and are therefore not subject to the PSD program.

The only Federal Class I area within 62.1 miles (100 kilometers) of the project site is the Desolation Wilderness located approximately 52 miles southeast of the project site.

#### ***Federal Hazardous Air Pollutant Program***

Title III of the CAA requires the EPA to promulgate National Emissions Standards for Hazardous Air Pollutants (NESHAPs). The NESHAPs may differ between regional sources and area sources of hazardous air pollutants (HAPs). Major sources are defined as stationary sources with potential to emit more than 10 tons per year (tpy) of any HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. The emissions standards were promulgated in two phases. In the first phase (1992–2000), EPA developed technology-based emission standards designed to produce the maximum emission reduction achievable for major sources. For area sources, the standards were based on generally available control technology. In the second phase (2001–2008), the EPA promulgated health risk–based emissions standards necessary to address risks remaining after implementation of the technology-based NESHAP standards.

In addition to standards for stationary sources of HAPs, the CAA also requires the EPA to promulgate vehicle or fuel standards to include reasonable controls for toxic emissions, addressing at a minimum benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 of the CAA requires the use of reformulated gasoline in selected U.S. cities (those with the most severe ozone nonattainment conditions) to further reduce mobile-source emissions. NESHAP regulations are also commonly used to ensure the emission of HAPs (such as asbestos) are reduced or eliminated during construction through a permitting process.

## State and Local

### ***California Clean Air Act***

In 1988, the State legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. CCAA requirements include annual emission reductions, development and use of low emission vehicles, establishment of the CAAQS, and submittal of air quality attainment plans by air districts for incorporation into the California SIP. CARB is the state agency responsible for coordinating both state and Federal air pollution control programs in California. CARB designated CAAQS for the six Federal CAPs and four additional pollutants: vinyl chloride, visibly reducing particles, sulfates, and hydrogen sulfide (refer to **Table 3.2-4.**)

### ***California State Implementation Plan***

California's State Implementation Plan (SIP) is comprised of the State's overall air quality attainment plans to meet the NAAQS as well as the individual air quality attainment plans of each AQMD and APCD. The items included in the California SIP are listed in 40 CFR Chapter I, Part 52, Subpart F §52.220. The California SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), AQMD and APCD rules, State regulations, and Federal controls for each air basin and California's overall air quality. Many of the items within the California SIP rely on the same control strategies, such as emissions standards for cars and heavy trucks, fuel regulations, and limitations on emissions from consumer products. AQMDs and APCDs, as well other agencies such as the Bureau of Automotive Repair, prepare draft California SIP elements and submit them to CARB for review and approval. The CCAA identifies CARB as the lead agency for compiling items for incorporation into the California SIP, and submitting the items to the EPA for approval.

### ***Toxic Air Contaminants***

In addition to the above-listed California CAPs, Toxic Air Contaminants (TACs) are another group of pollutants regulated under the CCAA. TACs are less pervasive in the urban atmosphere than the criteria pollutants, but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are 244 chemicals listed by the State as TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), grading (asbestos), and diesel motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Ambient air quality standards have not been set for TACs. Instead, these pollutants are typically regulated through a technology-based approach for reducing TACs. This approach requires facilities to install Maximum Achievable Control Technology (MACT) on emission sources.

### ***Placer County Air Pollution Control District***

The PCAPCD provides air quality rules and recommends conditions of approval for development projects in Placer County, which includes the properties in the vicinity of the Proposed Project. Rules that are relevant to the air quality in the vicinity of the Proposed Project are included as follows:

### 3.0 Affected Environmental and Environmental Consequences

**Rule 202:** Visible Emissions Limits, operators of vehicles and equipment found to exceed opacity limits are to be immediately notified by the PCAPCD to cease operation and the equipment must be repaired within 72 hours.

**Rule 217:** Volatile Organic Compounds Emissions, no discharge of volatile organic compounds caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance, unless such manufacture or use complies with the provisions of this Rule.

**Rule 228:** Fugitive Dust Limitations, operators of vehicles and equipment found to exceed opacity limits are to be immediately notified by the PCAPCD to cease operation and the equipment must be repaired within 72 hours. The prime contractor shall perform the following:

- Wet broom the streets
- Reduce traffic speeds on all unpaved surfaces to 15 miles per hour or less
- Apply methods such as surface stabilization, vegetative cover, paving, or other suitable dust control method as approved by the PCAPCD.
- Suspend all grading operation when wind speeds (including instantaneous gusts) are excessive and dust is impacting adjacent properties
- Water shall be applied or use of other method to control dust impacts offsite. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.

**Rule 310:** Burning and Disposal of Removed Vegetation, during construction, no open burning of removed vegetation shall be allowed unless permitted by the PCAPCD. All removed vegetative material shall be either chipped on site or taken to an appropriate recycling site, or if a site is not available, a licensed disposal site.

**Rule 501:** Permitting, Any engine greater than 50 brake horsepower or any boiler with heat greater than one million British Thermal Units (BTU) per hour will need a permit issued by the PCAPCD.

#### ***Placer County General Plan***

The Placer County General Plan (General Plan) is the guiding document for development in the unincorporated areas of the County, which includes the properties in the vicinity of the Proposed Project. Policies in the General Plan that are relevant to the air quality in the vicinity of the Proposed Project are included as follows:

#### **Goal**

6.F: To protect and improve air quality in Placer County

**Policies**

- 6.F.4: The County shall solicit and consider comments from local and regional agencies on proposed projects that may affect regional air quality.
  
- 6.F.6 The County shall require project-level environmental review to include identification of potential air quality impacts and designation of design and other appropriate mitigation measures or offset fees to reduce impacts. The County shall dedicate staff to work with project proponents and other agencies in identifying, ensuring the implementation of, and monitoring the success of mitigation measures.
  
- 6.F.7 The County shall encourage development to be located and designed to minimize direct and indirect air pollutants.
  
- 6.F.8 The County shall submit development proposals to the PCAPCD for review and comment in compliance with CEQA prior to consideration by the appropriate decision-making body.
  
- 6.F.9 In reviewing project applications, the County shall consider alternatives or amendments that reduce emissions of air pollutants.
  
- 6.F.10 The County may require new development projects to submit an air quality analysis for review and approval. Based on this analysis, the County shall require appropriate mitigation measures consistent with the PCAPCD's 1991 Air Quality Attainment Plan (or updated edition).

***Horseshoe Bar/Penryn Community Plan***

The Horseshoe Bar/Penryn Community Plan 2005 (Community Plan) is a guiding document for development in the vicinity of the WWTP site and northern portion of the proposed force main. Policies related to air quality in the Community Plan that are relevant to the Proposed Project are listed below.

**Goals: Natural Resources Management Element – Air Quality**

- (1) Recognize that clean air and water are essential resources for maintaining a high quality of living. Protect the high quality of air, water, and groundwater resources consistent with adopted Federal, State, and local standards.
  
- (2) Protect and improve air quality in the plan area.

**Policies**

- (2) Development projects shall be located and designed to conserve air quality and minimize direct and indirect emission of air contaminants. Development proposals shall be submitted to the Placer County Air Pollution Control District to identify the project's air quality impacts prior to consideration by the appropriate decision-making body. Appropriate mitigation measures, including any issuance of an air quality permit to direct emission sources, shall be included in the project proposal.
  
- (4) Consider only plan alternatives and later amendments that reduce emissions to their lowest practical levels.

### 3.0 Affected Environmental and Environmental Consequences

- (6) Implement mitigations for air quality impacts associated with adoption of the Horseshoe Bar/Penryn Community Plan and include them in the monitoring plan.
- (8) Land development projects which result in 200 or more trip-ends per day may require an air quality analysis to be submitted for review and approval.

#### **Granite Bay Community Plan**

The Granite Bay Community Plan 2012 is a guiding document for development in the vicinity of the proposed force main alignments that extend south of Dick Cook Road. Policies related to air quality in the Granite Bay Community Plan that are relevant to the Proposed Project are listed below.

#### **Goals: Natural Resource Conservation Element – Air Quality**

1. Reduce the impacts of greenhouse gases and climate change through the review of land use projects proposed in the Plan area.
3. Reduce emission impacts to “sensitive receptors” (children, the elderly, persons afflicted with health issues) living in the Granite Bay Community Plan area.

#### **Policies**

1. Ensure that project air quality impacts are quantified using analysis methods and significance thresholds as recommended by the PCAPCD.
2. Ensure that projects which may have potential air quality impacts mitigate any of its anticipated emissions which exceed allowable emissions as established by the PCAPCD.
3. Ensure all air quality mitigation measures are feasible, implementable, and effective for individual projects and on a community-wide basis.
4. Encourage innovative mitigation measures and approaches to reduce air quality impacts by coordinating with the PCAPCD, project applicants, and other interested parties.
5. Work with the PCAPCD to reduce particulate emissions from project construction, grading, excavation, demolition, and other sources.
6. Encourage the use of pollution control measures such as landscaping, vegetation, and other materials, which trap particulate matter or control pollution.

### **Climate Change**

#### ***Federal***

#### **Clean Air Act**

In *Massachusetts et al. vs. Environmental Protection Agency et al.* (April 2, 2007), the US Supreme Court ruled that the CAA authorizes the EPA to regulate CO<sub>2</sub> emissions from new motor vehicles. The Court did not mandate that the EPA enact regulations to reduce GHG emissions, but found that the only

### 3.0 Affected Environmental and Environmental Consequences

instances where the EPA could avoid taking action were if it found that GHGs do not contribute to climate change or if it offered a “reasonable explanation” for not determining that GHGs contribute to climate change. On December 15, 2009, the EPA issued a final endangerment and cause finding (74 FR 66496), stating that high atmospheric levels of greenhouse gases “are the unambiguous result of human emissions, and are very likely the cause of the observed increase in average temperatures and other climatic changes.” The EPA further found that “atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act.” The finding itself does not impose any requirements on industry or other entities.

#### **U.S. Environmental Protection Agency**

On December 7, 2009, EPA Administrator Lisa Jackson signed a final action, under Section 202(a) of the Clean Air Act, finding that four key greenhouse gases (GHGs) and two groups of GHGs, including carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons and perfluorocarbons, constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to the climate change problem.

The following are the most recent regulatory actions taken by the EPA:

- On July 23, 2009, EPA published a final “rule which proposes to establish the criteria for including sources or sites in a Registry of Recoverable Waste Energy Sources (Registry),” as required by the Energy Independence and Security Act of 2007. Waste energy can be used to produce clean electricity. The clean electricity produced by waste energy would reduce the need for non-renewable forms of electricity production, thus reducing greenhouse gas (GHG) emissions.
- On September 15, 2009, EPA and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) proposed a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the United States. EPA proposed the first national GHG emissions standards under the Clean Air Act, and NHTSA proposed an increase in the Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act.
- In response to the FY 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161), EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. Signed by the Administrator on September 22, 2009, the rule requires that suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines outside of the light duty sector, and facilities that emit 25,000 metric tons or more of GHGs per year to submit annual reports to EPA. The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change.
- On September 30, 2009, EPA proposed new thresholds for greenhouse gas emissions (GHG) that define when Clean Air Act permits under the New Source Review and title V operating permits programs would be required.

### 3.0 Affected Environmental and Environmental Consequences

- In February, 2010 the Council on Environmental Quality (CEQ) Chair released a memorandum, *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*. The memorandum provides guidance on how project-related GHG emission should be analyzed in NEPA documents. The Draft Guidance provides that a NEPA climate change analysis shall provide quantification and mitigation to reduce GHG emissions. The guidance also provides that 25,000 metric tons of GHG emissions per year may be a helpful guideline to assist lead agencies in making informed decisions on climate change impacts resulting from a project subject to NEPA. The guidance notes that the 25,000 metric tons is not a threshold for evaluating climate change on the project level. As of February, 2012 the guidance has not been approved by the EPA.

#### **State**

California has been a leader among the states in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide GHG emissions in the future. California's climate change strategy is multifaceted and involves a number of state agencies implementing a variety of state laws and policies. Laws and policies are summarized below:

#### **Assembly Bill 1493**

Signed by the Governor in 2002, Assembly Bill (AB) 1493 requires that the CARB adopt regulations requiring a reduction in GHG emissions emitted by cars in the state. EPA granted California's waiver request enabling the state to enforce its greenhouse gas emissions standards for new motor vehicles. With the granting of the waiver on June 30, 2009, it is expected that the regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016 (CARB, 2009b).

#### **Executive Order S-3-05**

Executive Order (EO) S-3-05 was signed by the Governor on June 1, 2005. EO S-3-05 established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010
- Reduce GHG emissions to 1990 levels by 2020
- Reduce GHG emissions to 80 percent below 1990 levels by 2050

EO S-3-05 created a "Climate Action Team" or "CAT" headed by the California Environmental Protection Agency (CEPA) and including several other state jurisdictional agencies. The CAT is tasked by EO S-3-05 with outlining the effects of climate change on California and recommending an adaptation plan. The CAT is also tasked with creating a strategy to meet the target emission reductions. In April 2006 the CAT published an initial report that accomplished these two tasks.

#### **Assembly Bill 32**

Signed by the Governor on September 27, 2006, AB 32 codifies a key requirement of EO S-3-05, specifically the requirement to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 tasks CARB with monitoring state sources of GHGs and designing emission reduction measures to comply with

### 3.0 Affected Environmental and Environmental Consequences

the law's emission reduction requirements. However, AB 32 also continues the CAT's efforts to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

In order to accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that could be implemented and would serve to meet about a quarter of the required 2020 emissions reductions (CARB, 2006). In order to assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In the October 2007 report, CARB cited the CAT strategies and other existing strategies that may be utilized in achieving the remainder of the emissions reductions. AB 32 required that CARB prepare a comprehensive "scoping plan" that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. On October 8, 2008 CARB released the Climate Change Scoping Plan, 2008 and on December 12, 2008, CARB approved the Climate Change Scoping Plan (CARB, 2007). CARB provided an update to the December, 2008 Scoping Report in November, 2009. The update provided additional reduction strategies and an overview of methods to further reduce GHG emissions in California; however, no definitive numerical GHG emissions threshold was provided.

#### **Executive Order S-01-07**

EO S-01-07 was signed by the Governor on January 18, 2007. It mandates a statewide goal to reduce the carbon intensity of transportation fuels by at least 10 percent by 2020. This target reduction was identified by CARB as one of the AB 32 early action measures identified in their October 2007 report.

#### **CEQA Guidelines**

On December 30, 2009 the Natural Resources Agency adopted CEQA Guideline Amendments for the quantification and mitigation of greenhouse gas emissions. The adopted guidelines provide the following direction for consideration of climate change impacts in a CEQA document:

- The determination of significance of GHG emissions calls for a careful judgment by the lead agency.
- The 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 GHG emissions resulting from a proposed project.
- A model or methodology shall be used to quantify GHG emissions resulting from a CEQA project.
- Significance may rely on qualitative analysis or performance based standards.
- The lead agency may adopt thresholds of significance previously adopted or recommended by other public agencies or recommended by experts.
- The CEQA document shall discuss regional and/or local GHG reduction plans.
- A CEQA document shall analyze GHG emissions if they are cumulatively considerable.
- A description of the effects of climate change on the environment shall be included in CEQA documents.
- A CEQA document shall contain mitigation measures, which feasibly reduce GHG emissions.
- GHG analysis in a CEQA document may be Tiered or Streamlined.

The methodology and basis of calculation for estimating and analyzing GHG emissions resulting from the Proposed Project is based on scientific and factual data and is consistent with the methodology and guidance identified in the CEQA guideline amendments recently adopted by the National Resources Agency.

#### **Local**

The PCAPCD does not currently have any adopted thresholds of significance for project-related GHG emissions. The PCAPCD suggest using thresholds of significance adopted or recommended by other lead agencies or air districts, provided the thresholds of significance are supported by substantial evidence.

### **3.2.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPS**

#### **Methodology**

The analysis in this section focuses on the nature and magnitude of the change in the air quality environment due to construction and operation of the Proposed Project. Emissions resulting from implementation of the Proposed Project are analyzed in two distinct segments, construction and operation. Construction emissions are temporary in nature and do not overlap with operational emissions. During the construction phase, pollutants of concern for the alternatives are ozone (and associated precursors NO<sub>x</sub> and ROGs) and PM<sub>10</sub>. During construction, PM<sub>10</sub> emissions are primarily produced during mass and fine grading activities. NO<sub>x</sub>, ROGs, and PM<sub>10</sub> are emitted from earth moving activities, combustion of diesel and gasoline fuels by heavy-duty construction equipment, and employee vehicles.

Operational emissions consist of area sources, produced by combustion of heating fuels and WWTP processes, and employee and maintenance vehicle emissions. Operational pollutants of concern are the precursors of ozone generation NO<sub>x</sub> and ROGs.

#### **Criteria Air Pollutants - Construction**

URBEMIS 9.2.4 was used to estimate emissions from all construction-related sources. The results of the URBEMIS 9.2.4 modeling are discussed below and output files are provided in **Appendix D**.

URBEMIS 9.2.4 provides default values when site-specific inputs are not available. The default values are provided in **Appendix D**. The following site-specific traffic inputs and assumptions were used for the purposes of air quality modeling:

- Emissions from construction were calculated based on all construction related activities, including but not limited to demolition, grading, use of construction equipment, material hauling, export of waste and recycling materials, re-vegetation, and tree plantings that would result from mitigation measures recommended in **Section 3.3**, Biological Resources. The area required for re-vegetation was conservatively assumed to consist of an approximately 1-acre area within the project footprint.

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- Phase I construction of the force main and pump station would occur over a period of 20 months, between October 2012 and May 2014.
- Between October 2012 and May 2014, approximately 4,500 cubic yards of pipe bedding will be imported and 6,000 cy of soil will be exported. Criteria pollutant emissions from the import and export of materials are accounted for in the construction (grading, 2012 to 2014) section of the URBEMIS air quality model.
- Phase I demolition would occur over a period of 4 months between June 2014 and December 2014.
- Between June 2014 and December 2014, 5,000 cy of demolition materials will be removed from the SMD 3 site. Criteria pollutant emissions from the export of demolition materials are accounted for in the construction (demolition, 2014) section of the URBEMIS air quality model.
- Phase II, construction is anticipated to occur in 2021, over a period of six months for Alternatives A and B, and over a period of 8 months for Alternative C.
- During Phase II, approximately 1,200 cy of pipe bedding will be imported to the project site and 1,600 cy of soil will be exported. Criteria pollutant emissions from the import and export of materials are accounted for in the construction (grading, 2021) section of the URBEMIS air quality model.
- Round trip material haul distance and truck material capacity used to determine criteria pollutant emissions is 14 miles and 20 cy, respectively.
- 60 kilowatt diesel stand-by generator with a 130 horsepower rating and 200 hours of use was used to estimate criteria pollutant emissions from the stand-by generator.

Resulting emission estimates associated with construction were compared to applicable PCAPCD CEQA thresholds and Federal general conformity de minimis levels to evaluate the effects of construction activities on air quality.

#### ***Criteria Air Pollutants - Operation***

Operational emissions from wastewater treatment process would not change as a result of the proposed project alternatives because although wastewater treatment would cease at the SMD 3 WWTP, this would be off-set by an increase in treatment at the Dry Creek WWTP. Although likely that the Dry Creek facilities would have fewer emissions due more efficient operations, for purposes of this analysis no net reduction in emissions was assumed. No additional maintenance or worker trips would occur during operation of proposed project alternatives over existing conditions. A stand-by diesel or propane generator would periodically operate at the pump station.

#### ***Odors***

Odor is subjective and in most cases not quantifiable. Potential odor impacts were analyzed based on an examination of the existing odor sources and control measures at the WWTP, potential odor effects of the project, and a comparison of those effects to the significance criteria listed below.

#### ***Climate Change***

The CARB and the Climate Action Team (CAT) have recently identified approximately 126 strategies and measures that may be utilized by the state to meet its emissions reduction targets in 2010, 2020, and 2050. Most of these measures focus on statewide action meant to curb emissions by changes in

### 3.0 Affected Environmental and Environmental Consequences

statewide planning or policies rather than changes to individual development projects. However, some of the measures may be directly applicable to specific industries or individual commercial developments. Since the PCAPCD does not have adopted methodology or thresholds for climate change, it suggests in their January 24, 2012 scoping letter that other District's guidelines may be used. Therefore, for the purpose of this analysis, should the project comply with all directly applicable CAT reduction strategies, it is assumed that the project would support the State's efforts to significantly reduce its cumulative contribution to global climate change consistent with the targets set forth in AB 32. This performance based methodology, along with the quantification of project related GHG emissions, is consistent with the methodology provided in the CEQA Guideline Amendments adopted by the Natural Resource Agency on December 30, 2009.

#### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to air quality have been developed based on Appendix G of the CEQA *Guidelines* and relevant agency thresholds. Impacts to air quality would be considered significant if the Proposed Project would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase in any CAP for which the project region is non-attainment under an applicable Federal or state ambient air quality standard
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Based on the above CEQA standards of significance, the PCAPCD Rules have provided the following significance thresholds:

- If the project's construction emissions are above 82 pounds per day (lb/day) for ROG<sub>s</sub> or NO<sub>x</sub> and PM<sub>10</sub> then project emissions would be considered significant.
- If the project's operational emission are above 82 lb/day for ROG<sub>s</sub> or NO<sub>x</sub> and PM<sub>10</sub> then project emissions would be considered significant.
- If the project's cumulative emissions are above 10 lb/day for ROG<sub>s</sub> and NO<sub>x</sub> then project emissions would be considered significant.
- If the project's emissions of toxic air contaminants exceed two pounds per day then project emissions would be considered significant.
- The project would not generate odorous emission in quantities as to cause detriment, nuisance, or annoyance to any considerable number of persons or to the public (PCAPCD Rule 205).

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Additionally, in accordance with General Conformity Rule 40 CFR 93.152 of the CAA, the Proposed Project would be considered to have a significant effect if all of the following are applicable:

- The project is in a nonattainment area for criteria pollutants
- The project emits criteria pollutants
- The project's construction or operational emissions are above 100 tons per year for ROG's or NO<sub>x</sub>

Because local thresholds are more stringent than the Federal *de minimis* levels, project related emissions below local thresholds would result in *de minimis* levels not be exceeded and the Proposed Project would conform the applicable SIP.

CARB and the PCAPCD have not developed significance criteria for construction or operational GHG emissions. The County has determined that the following GHG thresholds will be applied to the Proposed Project:

- The project's incremental contribution to climate change would be considered cumulatively considerable if project construction does not comply with directly applicable emission reduction measures that would support the State's efforts to significantly reduce its cumulative contribution to global climate change and the associated impacts. These would include each of the project-applicable strategies currently identified by CARB and the California Action Team (CAT) to comply with Executive Order S-3-05 and AB 32.
- Operational GHG emissions would be considered cumulatively significant if they exceed 1,100 metric tons per year. Substantial evidence and technical support for this threshold was developed by the BAAQMD and is available in the BAAQMD CEQA Guidelines (BAAQMD, 2010).

## Project Specific Impacts

### ***Construction Impacts***

#### **Impact**

#### **3.2-1 Construction of the Proposed Project would generate emissions of NO<sub>x</sub>, ROG's, PM<sub>10</sub>, hazardous air pollutants, and toxic air contaminants.**

#### ***No Project/No Action Alternative***

Under the No Project/No Action Alternative, no construction-related emissions of criteria pollutants, toxic air contaminants (TACs), and hazardous air pollutants (HAPs) would occur because the project would not be constructed. Existing emissions from operation of the WWTP would continue, but no additional impacts are expected. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Emissions generated from demolition, grading, and construction activities (including re-vegetation and mitigation plantings) resulting from the Proposed Project would be short-term, intermittent,

### 3.0 Affected Environmental and Environmental Consequences

and temporary in nature. As described in the methodology section above and Section 2.4.3, the total duration of construction activities under Alternative A would be 24 months during Phase I and 6 months during Phase II. However, construction activities have the potential to represent a significant air quality impact. The grading and construction of the Proposed Project would result in the generation of ROGs, NOx, and PM<sub>10</sub> emissions. PM<sub>10</sub> is generally the direct result of site grading, excavation, road paving, and exhaust associated with construction equipment. PM<sub>10</sub> emissions are largely dependent on the amount of ground disturbance associated with site preparation activities. Emissions of NOx and ROGs are generally associated with employee vehicle trips, delivery of materials, and construction equipment exhaust. As discussed in **Section 1.10**, stationary construction equipment over 50 horsepower would require an Authority to Construct (ATC) and permit to operate (PTO) from the PCAPCD, which would include limitations on the time of use and emissions of stationary construction equipment (PCAPCD Rule 501.300 and Rule 501.301).

**Table 3.2-5** presents the mitigated and unmitigated emissions from construction activities. Construction emissions are compared to the PCAPCD thresholds to determine if the construction emissions of Alternative A would have a significant impact on regional air quality. As shown in **Table 3.2-5**, the Proposed Project would not exceed the PCAPCD thresholds or the conformity de minimis levels; therefore, construction of Alternative A would have a less-than-significant impact on local and regional air quality and Alternative A would be in conformance with the applicable SIP. **Mitigation Measure 3.2-1** to prepare a construction emissions/dust plan has been provided to reduce construction-related emissions. **Less-Than-Significant Impact with Mitigation.**

**TABLE 3.2-5**  
ALTERNATIVES A AND B MITIGATED (UNMITIGATED) CONSTRUCTION EMISSIONS<sup>1</sup>

Year	Pollutants of Concern		
	ROGs	NOx	PM <sub>10</sub>
pounds per day			
<b>Phase I</b>			
2012	11.70 (11.70)	79.30 (79.30)	7.04 (14.77)
2013	10.87 (10.87)	73.88 (73.88)	6.65 (14.37)
2014	10.19 (10.19)	68.09 (68.09)	6.21 (13.93)
<b>Phase II</b>			
2021	3.44 (3.44)	19.87 (19.87)	3.46 (11.18)
<b>Highest Project Daily Emission</b>	<b>11.70 (11.70)</b>	<b>79.30 (79.30)</b>	<b>7.04 (14.77)</b>
PCAPCD Thresholds	82	82	82
<b>Highest Project Annual Emission (tpy)</b>	<b>0.68 (0.68)</b>	<b>9.64 (9.64)</b>	<b>0.87 (1.88)</b>
<i>Conformity De Minimis Levels (tpy)</i>	50	50	N/A
Exceed Thresholds or Levels	No (No)	No (No)	No (No)
N/A = not applicable; tpy = tons per year.			
1. Emission estimates within this table account for all construction and grading activities associated with the project, including re-vegetation and mitigation plantings as required by mitigation measures listed in Section 3.3.			
Source: URBEMIS 9.2.4, 2007.			

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#### *Toxic Air Contaminants and Hazardous Air Pollutants*

Diesel particulate matter (DPM) is the main Toxic Air Contaminant (TAC) of concern during construction and operation phases of the Proposed Project. Construction would include grading, soil hauling, demolition, paving, and building activities. These activities utilize heavy equipment, which use diesel fuel and emit DPM. DPM emissions during operation would also be emitted from diesel vehicles used by patrons, employees, and delivery services.

The land surrounding the WWTP and the force main alignment is mainly residential with some commercial uses. The nearest sensitive receptors are residences located behind a mature grove of trees approximately 50 feet north of the WWTP. Residents are also located approximately 50 feet from the force main alignment. DPM generally dissipates rapidly from its original concentration and is reduced by 65 to 85 percent by trees. Due to the distance of the nearest sensitive receptor, the intermittent and temporary nature of construction, and the trees between the WWTP and sensitive receptors, construction activities at the WWTP would not expose sensitive receptors to substantial concentrations of DPM. Construction activity along the force main alignment would be intermittent and short term. The site of active construction work would move along the force main alignment; thus, no single sensitive receptor would be exposed to DPM emissions for an extended length of time. Therefore, significant concentrations of DPM would not occur, resulting in a less than significant impact to local air quality. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would consist of similar construction activities and would disturb approximately the same area as Alternative A. The total duration of construction activities under Alternative B would be approximately 24 months during Phase I and 6 months during Phase II, which is identical to Alternative A; therefore, construction of Alternative B would have the similar emissions as shown in **Table 3.2-5**. Construction of Alternative B would have a less-than-significant impact on local and regional air quality and Alternative B would be in conformance with the applicable SIP. **Mitigation Measure 3.2-1** to prepare a construction emissions/dust plan has been provided to reduce project-related emissions. **Less-than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative B, except a greater area would be disturbed during construction due to the need to upgrade a segment of the SMD 2 sewer during Phase I. The total duration of construction activities under Alternative C would be approximately 24 months during Phase I and 8 months during Phase II, which is two months longer than Alternatives A and B. **Table 3.2-6** presents mitigated and unmitigated emissions from construction activities. Construction emissions are compared to the PCAPCD thresholds to determine if the construction emissions of Alternative C would have a significant impact on regional air quality.

### 3.0 Affected Environmental and Environmental Consequences

As shown in **Table 3.2-6**, Alternative C would not exceed the PCAPCD thresholds or the conformity de minimis levels; therefore, construction of Alternative C would have a less than significant impact on local and regional air quality and Alternative C would be in conformance with the applicable SIP. **Mitigation Measures 3.2-1** to prepare a construction emissions/dust plan has been provided to reduce project-related emissions. **Less-Than-Significant Impact with Mitigation.**

**TABLE 3.2-6**  
ALTERNATIVE C MITIGATED (UNMITIGATED) CONSTRUCTION EMISSIONS

Year	Pollutants of Concern		
	ROGs	NOx	PM <sub>10</sub>
	pounds per day		
<b>Phase I</b>			
2012	11.66 (11.66)	79.11 (79.11)	7.03 (14.76)
2013	10.84 (10.84)	73.70 (73.70)	6.64 (14.36)
2014	10.16 (10.16)	67.91 (67.91)	6.20 (13.92)
<b>Phase II</b>			
2021	4.49 (4.49)	25.26 (25.26)	3.66 (11.38)
<b>Highest Project Daily Emission</b>	<b>11.66 (11.66)</b>	<b>79.11 (79.11)</b>	<b>7.03 (14.76)</b>
PCAPCD Thresholds	82	82	82
<b>Highest Project Annual Emission (tpy)</b>	<b>1.41 (1.41)</b>	<b>9.62 (9.62)</b>	<b>0.87 (1.87)</b>
<i>Conformity De Minimis Levels (tpy)</i>	50	50	N/A
Exceed Thresholds or Levels	No (No)	No (No)	No (No)
Source: URBEMIS 9.2.4, 2007.			

#### Mitigation Measures/BMPs

##### **Alternative A Proposed Project, Alternative B, and Alternative C**

**Mitigation Measure 3.2-1: Prepare and Implement a Construction Emissions/Dust Plan.** The Contractor shall prepare, and the County shall submit, a construction Emissions/Dust Plan to the PCAPCD. Approval of the Plan from the PCAPCD shall be obtained prior to breaking ground. At a minimum, the Plan shall require implementation of the following measures:

- A comprehensive inventory (e.g. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower or greater) that will be used in aggregate of 40 or more hours for the construction project. If any new equipment is added after submission of the Plan, the primary contractor shall contact the PCAPCD prior to the new equipment being utilized. At least three business days prior to the use of subject heavy-duty off-road equipment, the primary contractor shall provide the PCAPCD with the anticipated construction timeline including start date, name, and phone number of the property owner, project manager, and on-site foreman.

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- Construction contractors shall utilize existing power sources (e.g., power poles) or clean fuel (e.g., gasoline, biodiesel, natural gas) generators rather than temporary diesel power generators.
- Construction contractors shall minimize idling time during construction to a maximum of five minutes for all diesel powered equipment whenever feasible.
- Construction contractors shall suspend all grading operations when winds are greater than 25 miles per hour.

#### Impact

#### 3.2-2 Construction of the Proposed Project would have the potential to generate objectionable odors.

##### ***No Project/No Action Alternative***

Under the No Project/No Action Alternative, no construction-related odors would occur because the project would not be constructed. The existing odors from operation of the WWTP would remain the same, but no additional impacts are expected. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Construction activities under Alternative A would have the potential to emit odors from diesel equipment, paints, solvents, fugitive dust, and adhesives. Odors from construction are intermittent and temporary and generally would not extend beyond the projects boundary. The nearest sensitive odor receptor is 50 feet from where construction activities would be carried out along the force main corridor and at the SMD 3 WWTP. Given the distance to the nearest sensitive receptor, the time of construction and the temporary and intermittent nature of construction odors, a less than significant odor impact would occur during the construction phase of Alternative A. **Less-Than-Significant Impact.**

##### ***Alternative B Road Right-of-Way Alignment***

Construction activities under Alternative B would be the same as under Alternative A; therefore, odors from construction would be the same and generally would not extend beyond the projects boundary. Given the distance to the nearest sensitive receptor, the time of construction (refer to and the temporary and intermittent nature of construction odors, a less than significant odor impact would occur during the construction phase of Alternative B. **Less-Than-Significant Impact.**

##### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative A; therefore, odors from construction would be similar and generally would not extend beyond the projects boundary. Given the distance to the nearest sensitive receptor, the time of construction and the temporary and intermittent nature of construction odors, a less than significant odor impact would occur during the construction phase of Alternative C. **Less-Than-Significant Impact.**

#### Impact

#### 3.2-3 Construction activities have the potential to release natural occurring asbestos into the atmosphere.

##### ***No Project/No Action Alternative***

Under the No Project/No Action Alternative, no construction-related activities would occur because the project would not be constructed; therefore, no naturally occurring asbestos (NOA) would be released into the atmosphere. The existing air quality condition would remain the same, but no additional impacts are expected. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

The soils surrounding the WWTP and the majority of force main alignment are unlikely to contain NOA; however, a NOA fault exists at the intersection of Twin Rocks Road and Folsom Auburn Road, making this area more likely to contain NOA. If NOA were to be encountered during construction, a potentially significant impact to air quality could occur due to the emissions of fugitive dust containing NOA. A geotechnical investigation of the force main alignment and WWTP site was conducted in support of project design (Blackburn Consulting, 2011). Based on mapped geologic conditions and observation of the soil and rock during the geotechnical investigation, the potential to encounter NOA minerals in significant quantities is considered to be very low (Fischer, 2012). Implementation of **Mitigation Measures 3.2-3a** and **3.2-3b** would reduce the potential for NOA to be emitted into the atmosphere resulting in a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

##### ***Alternative B Road Right-of-Way Alignment***

Construction of the force main under Alternative B would require the same grading activities as Alternative A, resulting in a potentially significant impact to air quality. With the implementation of **Mitigation Measures 3.2-3a** and **3.2-3b**, the potential for NOA to be emitted into the atmosphere under Alternative B would be reduced, resulting in a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

##### ***Alternative C Hidden Valley Pipe Upsizing***

Construction of the force main under Alternative C would require similar grading activities as Alternative A, resulting in a potentially significant impact to air quality. Implementation of **Mitigation Measures 3.2-3a** and **3.2-3b** would reduce the potential for NOA to be emitted into the atmosphere resulting in a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

#### Mitigation Measures/BMPs

##### **Alternative A Proposed Project, Alternative B, and Alternative C**

**Mitigation Measure 3.2-3a – Monitor Force Main Construction Activities Between Shady Lane and Lake Circle to Identify NOA.** The County shall retain a qualified geologist or geotechnical engineer to monitor construction of the force main alignment between Shady Lake Lane and Lake Circle to determine the presence or absence of NOA. If NOA is not identified by the qualified geologist, then no further mitigation is required.

**Mitigation Measure 3.2-3b – Implement Asbestos Dust Mitigation Plan (ADMP) if NOA is Identified.** If the construction monitoring results in the positive identification of NOA, or if NOA is encountered at anytime during construction, the County shall implement the following:

- The County shall prepare, and submit to PCAPCD for review and approval, an Asbestos Dust Mitigation Plan (ADMP) pursuant to CCR Title 17 Section 93105. The ADMP shall address the following:
  - Track-out prevention and control measures
  - Keeping active storage piles adequately wetted or covered with tarps.
  - Control for disturbed surface areas and storage piles that will remain inactive for more than seven (7) days
  - Control for traffic on on-site unpaved roads, parking lots, and staging areas
  - Control for earthmoving activities
  - Control for Off-Site Transport.
  - Post Construction Stabilization of Disturbed Areas.
  - Air Monitoring for Asbestos (If Required by the PCAPCD).
  - Frequency of Reporting
- If NOA is present in concentrations greater than the permissible exposure limits of the Department of Labor, Occupational Safety and Health Administration (0.1 fiber per cubic centimeter (f/cc) of air averaged over an eight hour work shift or 1.0 f/cc averaged over a 30 minute sampling period) then the County shall cease construction immediately and implement the ADMP including applicable construction worker protection measures as defined under Title 8 of the California Code of Regulations, Section 1529 (g), and any additional measures required under the California Occupational Safety and Health Administration, to reduce exposure of construction workers to airborne NOA.
- The County shall not use the NOA containing material as surfacing material. The NOA containing material can be reused at the site for subgrade material covered by other non-asbestos-containing material.

**Operational Effects****Impact****3.2-4 Operation of the project would generate emissions of air contaminants (ROGs, NOx, PM<sub>10</sub>, and toxic air contaminants).*****No Project/No Action Alternative***

Under the No Project/No Action Alternative, no operational-related criteria pollutant, toxic, or GHG emissions would occur because the project would not be constructed. Emissions from operation of the existing WWTP would remain the same, but no additional impacts are expected. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Operation of Alternative A would not create additional employee-related trips or maintenance. Additionally, daily operation of the pump station would utilize electrical pumps and would not generate direct emissions of criteria pollutants (refer to Impact 3.2.6 for a discussion of GHG emissions). However, operation of the 100 kilowatt (kW) propane or 60 kW diesel stand-by generator that would be used on an intermittent emergency basis would generate emissions of air contaminants. The diesel or propane engine employed in the 100 or 60 kW generator would exceed 50 brake horsepower, thus, requiring a PCAPCD Authority to Construct and Permit to Operate in accordance with PCAPCD Rule 501.300 and Rule 501.301 (refer to project approvals listed in **Section 1.10**). Emissions from the generator may exceed two pounds per day of an air contaminant (ROGs, NOx, PM<sub>10</sub>, and toxic air contaminants) resulting in a potentially significant impact. However, a permit to operate (PTO) would need to be obtained from the PCAPCD. This permit would limit the time of operation and emissions of the generator, resulting in a reduction of air contaminants to less than the PCAPCD thresholds. Therefore, operation of the Proposed Project would have a less than significant impact on regional air quality. **Less-Than-Significant Impact.**

***Alternative B Road Right-of-Way Alignment***

Operation of Alternative B would be the same as the operation under Alternative A. Therefore, with the issuance of a PCAPCD PTO the generator, Alternative B would have a less than significant impact on regional air quality. **Less-Than-Significant Impact.**

***Alternative C Hidden Valley Pipe Upsizing***

Operation of Alternative C would be similar to the operation under Alternative A. Therefore, with the issuance of a PCAPCD PTO the generator, Alternative C would have a less than significant impact on regional air quality. **Less-Than-Significant Impact.**

**Impact**

**3.2-5 Operation of the project would have the potential to generate objectionable odors.**

***No Project/No Action Alternative***

Under the No Project/No Action Alternative, the WWTP would not be decommissioned and ongoing odor generated by treatment operations at the site would continue. Existing operational odor emitting facilities at the WWTP include primary and secondary clarifiers, influent pumping, storage basins, and the headworks. The greatest source of potential odor at the WWTP is the headworks, which pumps raw sewage to the primary treatment facilities within the site. The headworks are located in the northwest quadrant of the site, approximately 200 feet from the nearest sensitive receptors. In 2011, there were no odor complaints associated with the WWTP operations. Under the No Action alternative, no change to the on-going odor levels at the project site would occur. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Alternative A would result in decommissioning of the existing SMD 3 WWTP, and construction of a pump station and force main to convey wastewater collected in the SMD 3 service area to the Dry Creek Regional WWTP located in the City of Roseville. Decommissioning of the WWTP would eliminate ongoing nuisances that may be experienced by residential housing located directly adjacent to the WWTP boundaries, including occasional odor produced by operation of the WWTP equipment. While Alternative A would result in the construction of a pump station at the SMD 3 site, the pump station would be located in the southeast corner of the property, the furthest point away from existing sensitive receptors. As described below, odor produced by operation of the pump station and re-purposed WWTP facilities would be considerably less than what is generated by the existing WWTP operations.

***Pump Station and Force Main***

Because of the heavy organic wastewater, the pump station and force main have the potential to produce odors that would be a nuisance or annoyance to sensitive receptors. Alternative A would use odor control at the pump station and at remote air relief valves (ARV) locations along the force main (refer to **Section 2.0**).

The odor control system used at the pump station would consist of a passive system comprised of a carbon filter Polyvinyl Chloride (PVC) cartridge located atop an eight-foot tall stack, which would be used temporarily to control air displaced from the wet well. If the PVC cartridge does not sufficiently contain odors, an air scrubbing system would be installed to further reduce odors from the wet well. A liquid phase treatment may be used to help control odors at the pumping station and at the ARV locations by injecting chemicals into the wastewater stream.

A 16-foot wide by 18-foot long by 2.5-foot deep concrete containment sump will be provided adjacent to the proposed pump station electrical building. The sump will provide sufficient

### 3.0 Affected Environmental and Environmental Consequences

containment for a 4,500-gallon chemical tank and metering pump system which would be used to suppress odors from the wastewater stream.

As stated in Section 2.0, odor control at ARV locations would be designed to Placer County Standards including carbon filters to control odors. With the implementation of these odor control systems, odors from the pump station and the force main would not cause nuisance or annoyance to a considerable number of persons or the public.

#### *Emergency Storage Facilities*

The existing WWTP's 47-foot-diameter, 16-foot-tall covered sand filter is to be re-purposed as the pump station emergency storage. The proposed emergency storage facility is located on the northeast side of the WWTP (**Figure 2-1**) and is approximately 100 feet from the nearest sensitive receptor. The storage facility would be used to store effluent produced during high flow events. Effluent would be stored during wet weather events that occur during the winter when flow to the pump station exceeds capacity or failure of the pump station system. Once the flow reduces to the capacity of the pumps, or the system is again operational, the effluent stored in the basins will be rerouted and transferred to the Dry Creek WWTP. The proposed storage facility would be utilized only during high flow periods, which occur during heavy rains. The high flows are caused by infiltration and inflow of surface and shallow groundwater into the sewer system; thus, diluting the effluent with water. The diluted effluent would be stored in the open basin for a short time during the wet and cold winter months. These factors would greatly reduce the potential for nearby sensitive receptors to perceive odor emissions.

Another emergency storage facility for the Proposed Project would be provided by approximately 230 linear feet (LF) of 10-foot-diameter buried reinforced concrete pipe (RCP) (Refer to **Table 2-1**). The RCP emergency storage facilities would be located near the southeastern property boundary approximately 150 feet from the nearest sensitive receptor. As stated above, the RCP emergency storage facilities would be buried, which would greatly reduce odor emissions that would reach nearby sensitive receptors. Additional emergency storage may also be provided through repurposing the existing clarifiers and digester at the WWTP. These facilities are located at the center of the WWTP and are approximately 260 feet from the nearest sensitive receptor. The re-purposed storage facilities would be open to the air as are the existing facilities. As stated above, no odor complaints were filed against the WWTP in 2011. Because the proposed emergency storage facilities would be utilized for short periods of time on an intermittent and temporary basis, odor emissions would not increase over existing conditions at the site.

#### *Dry Creek WWTP Operations*

The waste stream at the Dry Creek WWTP would increase by approximately 0.25 million gallons per day (mgd) average dry weather flow. This increase could result in odors that have the potential to cause nuisance or annoyance to a considerable number of persons or the public. As stated in **Section 3.12**, the Dry Creek WWTP has sufficient capacity to

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accommodate the increase in wastewater resulting from the project. The Dry Creek WWTP facility's influent pump station, fine screens, grit basin, and primary sediment basin are enclosed; Dry Creek WWTP also uses a soil bed biofilter for odor control. Dry Creek WWTP has the capacity to process additional wastewater from SMD 3 and has an existing odor control system in place; therefore, odors from increased flows from the SMD 3 service area to the Dry Creek WWTP would not cause nuisance or annoyance to a considerable number of persons or the public.

As discussed above, Alternative A includes a number of odor reducing project components that would improve existing odor conditions on the site, including removal of odor sources from the existing SMD 3 WWTP (headworks, primary and secondary clarifiers, biosolid drying beds, etc) and the use of odor control mechanisms at the pump station and ARV release valves along the pipeline. Emergency storage facilities would be used on a temporary and intermittent basis during conditions that would minimize the potential for odor impacts to occur. Therefore, the overall effect would be a net decrease in odor emissions at the WWTP and potential effects to sensitive receptors. Alternative A would not generate odorous emissions in quantities as to cause nuisance or annoyance to any persons or to the public (PCAPCD Rule 205). This impact is considered less than significant. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would have the same odor control system and same effluent flow rate as Alternative A. Alternative B would not generate odorous emission in quantities as to cause nuisance or annoyance to any persons or to the public (PCAPCD Rule 205). This impact is considered less than significant. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would have the same odor control system and same effluent flow rate as Alternative A; Alternative C would not generate odorous emission in quantities as to cause nuisance or annoyance to any persons or to the public (PCAPCD Rule 205). This impact is considered less than significant. **Less-Than-Significant Impact.**

### ***Cumulative Impacts***

#### **Impact**

**3.2-6 The Proposed Project has the potential to contribute to cumulative emissions of criteria air pollutants.**

#### ***No Project/No Action Alternative***

Under the No Project/No Action Alternative, no construction-related emissions of criteria pollutants would occur because the project would not be constructed. Existing emissions from operation of the WWTP would continue to contribute to cumulative air quality conditions, but no additional impacts are expected. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Past, present and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore by its very nature, air pollution is largely a cumulative impact. If a project's individual emissions contribute toward exceedance of the NAAQS or the CAAQS, then the project's cumulative impact on air quality would be significant. In developing attainment designations for criteria pollutants, the EPA considers the regions past, present, and future emission levels. Air quality management districts determine suitable significance thresholds based on an area's designated nonattainment status. These thresholds provide a tool by which the districts can achieve attainment for a particular criteria pollutant that is designated as nonattainment. Therefore, the PCAPCD's significance thresholds consider the regions past, present, and future emissions levels.

Implementation of Alternative A combined with the proposed developments within the project area could lead to cumulative impacts to air quality. Both construction and operation of Alternative A would result in the generation of criteria air pollutants that when combined with future growth within the project area could lead to cumulative impacts to air quality. As discussed in detail under **Impact 3.2-1** and **Impact 3.2-4**, emissions resulting from Alternative A would not exceed the PCAPCD thresholds or the conformity de minimis levels and construction and operation of Alternative A would be in conformance with the applicable SIP developed to address cumulative emissions of criteria air pollutants in the SVAB. Additionally, a Construction Emissions/Dust Plan would be prepared and implemented in accordance with **Mitigation Measure 3.2-1** that would further reduce Alternative A's contribution to cumulative effects to air quality. Therefore, Alternative A would have a less than significant cumulative impact on local and regional air quality. **Less than Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would consist of similar construction and operational activities as Alternative A; therefore, Alternative B would result in similar cumulative effects to air quality associated within emissions of criteria pollutants. **Less-than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would consist of similar construction and operational activities as Alternative A; therefore, Alternative C would result in similar cumulative effects to air quality associated within emissions of criteria pollutants. **Less-than-Significant Impact.**

**Impact**

**3.2-7 The Proposed Project has the potential to result in cumulative emissions of GHGs.**

***No Project/No Action Alternative***

Under the No Action Alternative, no cumulative construction or operational-related GHGs would be emitted because the project would not be constructed. The existing air quality condition would remain the same, but no additional impacts are expected. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Alternative A would not result in an increase in operational GHG emissions from wastewater treatment because the increase in treatment operations at the Dry Creek WWTP would be off-set by decommissioning of the SMD 3 WWTP. Although it is likely that the Dry Creek facilities would have fewer GHG emissions due to more efficient operations, for purposes of this analysis no net reduction in emissions was assumed. Alternative A would result in fewer operational and maintenance vehicle trips and associated emissions. GHG emissions resulting from the Proposed Project would be limited to indirect emissions from operation of the electric pump station equipment, intermittent emissions from operation of the stand-by emergency generator, and short-term emissions from construction.

Short-term construction related GHG emissions would result the use of heavy duty vehicles, worker trips, material haul trips, and soil haul trips. Project GHG emissions from construction activities and operation of the proposed pump station and stand-by generator were estimated using URBEMIS 9.2.4 air quality model and the 2010 Local Governments Operation Protocol and are shown in **Table 3.2-7**. The estimated direct construction emissions would be 2,515 metric tons (MT) of CO<sub>2</sub>e over the 34 months of Phase I and II construction and 20 MT per year of direct and indirect GHG emissions from operation.

**TABLE 3.2-7**  
ALTERNATIVES A, B AND C CONSTRUCTION AND OPERATIONAL GHG EMISSIONS

<b>Proposed Project</b>	<b>GHG Emissions in CO<sub>2</sub>e (MT Per Year)</b>
<b>Construction</b>	
Grading, Trenching, Demolition, Material Hauling, Re-vegetation and Mitigation Planting	2,515
<b>Operation</b>	
Area (diesel or propane combustion in stand-by generator)	18
Electricity Usage (pumps)	2
<b>Total Project-Related GHG Emissions</b>	
<b>2,535</b>	
Notes: MT = metric tons; CO <sub>2</sub> e = carbon dioxide equivalent. <sup>1</sup> Based on 5 megawatts of electricity use. Source: URBEMIS, 2007; LGOP, 2010.	

### 3.0 Affected Environmental and Environmental Consequences

**Table 3.2-8** describes the consistency of the Proposed Project with applicable state implemented climate change strategies developed to meet the goals of AB 32. With the implementation of **Mitigation Measures 3.2-7a** and **3.2-7b**, which require the use alternative fuels during construction and recycling of construction waste to the maximum extent feasible, Alternative A would be consistent with the State’s strategies established to meet GHG reduction goals in accordance with Executive Order S-3-05 and AB 32.

**TABLE 3.2-8**  
CONSISTENCY WITH APPLICABLE CALIFORNIA GHG EMISSIONS REDUCTION STRATEGIES

<b>CAT Strategies</b>	<b>Project Consistency</b>
<b>Vehicle Climate Change Standards:</b> AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the CARB in September 2004.	These are CARB enforced standards; vehicles that access the Proposed Project would be required to comply with the standards.
<b>Low Carbon Fuel Standard (LCFS):</b> The goal of LCFS is to reduce the “carbon intensity” of California’s vehicle fuel by at least 10 percent by 2020.	This would be a State mandated program; thus, reducing carbon emissions from all vehicles arriving and leaving the Proposed Project.
<b>Diesel Anti-Idling:</b> In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	CARB adopted standard. Vehicles that access the Proposed Project would be required to comply with the standards in accordance with California law.
<b>Alternative Fuels - Biodiesel Blends:</b> CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	<b>Mitigation Measure 3.2-6a, Alternative Fuel Sources,</b> would require that five percent of the construction fleet use electric or biodiesel vehicles or equipment.
<b>Achieve 50 percent statewide Recycling Goal:</b> Achieving the State’s 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	<b>Mitigation Measure 3.2-6b, Recycle Construction Waste,</b> would require the contractor to recycle construction waste to the maximum extent feasible, with a goal of exceeding the 50 percent diversion rate.
Note: AB= Assembly Bill; CARB= California Air Resource Board Source: CARB, 2007; Climate Action Team, 2006	

With mitigation, Alternative A would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, because the Proposed Project would be consistent with the applicable California GHG emission reduction strategies, and measures have been recommended that are considered to reduce the impact of global warming, the project’s contribution to cumulative effects associated with climate change is considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

GHG emissions from construction and operation of Alternative B would be similar to Alternative A. **Table 3.2-8** describes the consistency of Alternative B with applicable state implemented climate change strategies developed to meet the goals of AB 32. With the implementation of **Mitigation Measures 3.2-7a** and **3.2-7b**, Alternative B would be consistent with the State's GHG reduction goals in accordance with Executive Order S-3-05 and AB 32. Therefore, with mitigation, construction and operation of the Alternative B would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Alternative B's contribution to cumulative effects associated with climate change is considered less than significant with mitigation. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

GHG emissions from construction and operation of Alternative C would be similar to Alternative A. **Table 3.2-8** describes the consistency of the proposed project with applicable state implemented climate change strategies developed to meet the goals of AB 32. With the implementation of **Mitigation Measures 3.2-7a** and **3.2-7b**, Alternative C would be consistent with the State's GHG reduction goals in accordance with Executive Order S-3-05 and AB 32. Therefore, with mitigation, construction and operation of the Alternative C would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Alternative C's contribution to cumulative effects associated with climate change is considered less than significant with mitigation. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.2-7a: Utilize Alternative Fuel Sources.** Through contractual obligations, the County shall require that five percent of construction equipment and vehicles use alternative fuel sources, such as electricity or biodiesel.

**Mitigation Measure 3.2-7b: Recycle Construction Waste.** Through contractual obligations, the County shall require that construction waste be recycled to the maximum extent feasible, with the goal of exceeding a 50 percent diversion rate. This shall include recycling all demolition and excavation materials suitable for reuse.

### **3.3 BIOLOGICAL RESOURCES (INCLUDING VEGETATION, WILDLIFE, FISHERIES AND SPECIAL STATUS SPECIES)**

This section addresses the potential for the proposed project alternatives to impact biological resources. Following an overview of the relevant regulatory setting in **Subsection 3.3.1** and a discussion of the affected environment in **Subsection 3.3.2**, project-related impacts and recommended mitigation measures/BMPs are presented in **Subsection 3.3.3**.

#### **3.3.1 REGULATORY FRAMEWORK**

##### **Federal**

##### ***Clean Water Act***

The Clean Water Act (CWA) (33 USC § 1251-1376), as amended by the Water Quality Act of 1987, is the major Federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Important sections of the Act are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 (Water Quality Certification) requires an applicant for any Federal permit that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the SWRCB.
- Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA).

##### ***Executive Order 11990: Protection of Wetlands***

Executive Order (EO) 11990 established the protection of wetlands and riparian systems as the official policy of the Federal government. It requires all Federal agencies to consider wetland protection as an important part of their policies; to take action to minimize the destruction, loss, or degradation of wetlands; and to preserve and enhance the natural and beneficial values of wetlands.

##### ***Federal Endangered Species Act of 1973***

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) enforce the provisions of the Federal Endangered Species Act (FESA). The USFWS administers the FESA for all terrestrial species and other aquatic species not under the jurisdiction of NMFS. The NMFS administers the FESA for marine fish species, including anadromous salmonids. Section 9 (§1538) prohibits the "taking" of a listed species by anyone, including private individuals and state and local agencies. Threatened and endangered species on the Federal list (50 CFR Sections 17.11 and 17.12) are protected from take, defined as direct or indirect harm. If take of a listed species is necessary to complete an

### 3.0 Affected Environmental and Environmental Consequences

otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for Federal agencies. Under Section 7 of the FESA, all Federal agencies are required to ensure that any action they authorize, fund, or carry out will not likely jeopardize the continued existence of a listed species or modify their critical habitat. Therefore, project-related impacts to these species, or their habitats, would be considered significant and require mitigation.

Under the FESA, critical habitat may be designated by the Secretary of the Interior for any listed species. The term “critical habitat” for a threatened or endangered species refers to the following: specific areas within the geographical range of the species at the time it is listed that contain suitable habitat for the species, which may require special management considerations or protection; and specific areas outside the geographical range of the species at the time it is listed that contain suitable habitat for the species and is determined to be essential for the conservation of the species. Under Section 7 of the FESA, all Federal agencies are required to ensure that any action they authorize, fund, or carry out will not likely jeopardize the continued existence of a listed species or modify their critical habitat.

#### ***Magnuson-Stevens Fishery Conservation and Management Act***

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) conserves and manages fishery resources off the coasts of the U.S., anadromous species, and Continental Shelf fishery resources of the U.S., including the conservation and management of highly migratory species through the implementation and enforcement of international fishery agreements. The NMFS enforces the MSA, and regulates commercial and recreational fishing and the management of fisheries resources. The Sustainable Fisheries Act of 1996 amended the MSA to include new fisheries conservation provisions by emphasizing the importance of fish habitat in regards to the overall productivity and sustainability of U.S. marine fisheries (Public Law 104-267). The revised MSA mandates the identification and protection of essential fish habitat (EFH) for managed species during the review of projects conducted under Federal permits that have the potential to affect such habitat. Federal agencies are required to consult with NMFS on all actions and proposed actions that are authorized, funded, or undertaken by the agency, which may adversely affect EFH (MSA 305.b.2). Adverse effects can be direct (contamination or physical disruption), indirect (loss of prey or reduction in species fecundity), site-specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Four Fishery Management Plans (FMPs) have been prepared for species in California, Oregon, and Washington. The FMPs identify EFH for groundfish, coastal pelagic species, Pacific salmon, and Pacific highly migratory fisheries. Miners Ravine is considered EFH for chinook salmon under the MSA.

#### ***Migratory Bird Treaty Act***

Migratory birds are protected under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, abandonment of nestlings, or forced fledging would be considered take under Federal law. As such, project-related

disturbances must be reduced or eliminated during the nesting cycle. The general nesting season extends from March 1 to September 15.

## State

### ***California Endangered Species Act***

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. The CESA established that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission.

### ***California Environmental Quality Act***

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the Federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. Section 15380 defines “endangered” species of plants, fish, or wildlife as those whose survival and reproduction in the wild are in immediate jeopardy and “rare” species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project will normally have a significant effect on the environment if it will substantially affect a rare or endangered species or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

### ***California Fish and Game Codes***

The California Fish and Game Code defines take (Section 86) and prohibits taking of a species listed as threatened or endangered under the CESA (California Fish and Game Code Section 2080), or otherwise fully protected (California Fish and Game Code Sections 3511, 4700, and 5050). Section 2081(b) and (c) of the CESA allows the California Department of Fish and Game (CDFG) to issue an incidental take permit for a state listed threatened and endangered species if specific criteria outlined in Title 14 CCR, Sections 783.4(a), (b) and California Fish and Game Code Section 2081(b) are met. The California Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA. If a project is planned in an area where a species or specified bird occurs, an applicant must design the project to avoid all take of non-listed migratory birds; the CDFG cannot provide take authorization under the CESA. The CDFG protects plants designated as endangered or rare under Fish and Game Code Section 1900.

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California Fish and Game Code Section 1602 requires notification before beginning any activity that may obstruct or divert the natural flow of a river, stream, or lake; change or use any material from the bed, channel, or bank of a river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. California Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. Notification of the CDFG will be required prior to installation of the water diversion pump and facilities.

#### ***Senate Bill 1334***

Although oak trees and oak woodland habitats are not afforded special protection under Federal law, the California legislature enacted Senate Bill (SB) 1334 in 2004, which added oak woodland conservation regulations to the Public Resources Code. This law requires a county to determine whether a project within its jurisdiction may result in the conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county must consider alternative approaches to mitigate the significant effect of the conversion of oak woodlands. Such mitigation alternatives include: conservation through the use of conservation easements; planting and maintaining and appropriate number of replacement of trees; contribution of funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures developed by the county.

#### **Local**

##### ***Placer County General Plan***

The following are the relevant goals and policies identified within the Placer County General Plan (Placer County, 2008a) for biological resources.

##### **Goal**

6.A To protect and enhance the natural qualities of Placer County's streams, creeks and groundwater.

##### **Policy**

6.A.7 The County shall discourage grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of creeks and damage to riparian habitat.

##### **Goal**

6.B To protect wetland communities and related riparian areas throughout Placer County as valuable resources.

##### **Policies**

6.B.1 The County shall support the "no net loss" policy for wetland areas regulated by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game. Coordination with these agencies at all levels of project review shall continue to ensure

### 3.0 Affected Environmental and Environmental Consequences

that appropriate mitigation measures and the concerns of these agencies are adequately addressed.

- 6.B.4 The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the survival and nesting of wetland and riparian species.

#### Goal

- 6.C To protect, restore, and enhance habitats that support fish and wildlife species so as to maintain populations at viable levels.

#### Policies

- 6.C.1 The County shall identify and protect significant ecological resource areas and other unique wildlife habitats critical to protecting and sustaining wildlife populations. Significant ecological resource areas include the following:
- a. Wetland areas including vernal pools.
  - b. Stream environment zones.
  - c. Any habitat for rare, threatened, or endangered animals or plants.
  - d. Critical deer winter ranges (winter and summer), migratory routes, and fawning habitat.
  - e. Large areas of non-fragmented natural habitat, including Blue Oak Woodlands, Valley Foothill Riparian, vernal pool habitat.
  - f. Identifiable wildlife movement zones, including but not limited to, non-fragmented stream environment zones, avian and mammalian migratory routes, and known concentration areas of waterfowl within the Pacific Flyway.
  - g. Important spawning areas for anadromous fish.
- 6.C.6. The County shall support preservation of the habitats of rare, threatened, endangered, and/or other special status species. Federal and state agencies, as well as other resource conservation organizations, shall be encouraged to acquire and manage endangered species' habitats.
- 6.C.7. The County shall support the maintenance of suitable habitats for all indigenous species of wildlife, without preference to game or non-game species, through maintenance of habitat diversity.

#### Goal

- 6.D: To preserve and protect the valuable vegetation resources of Placer County.

#### Policies

- 6.D.3. The County shall support the preservation of outstanding areas of natural vegetation, including, but not limited to, oak woodlands, riparian areas, and vernal pools.

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- 6.D.4. The County shall ensure that landmark trees and major groves of native trees are preserved and protected. In order to maintain these areas in perpetuity, protected areas shall also include younger vegetation with suitable space for growth and reproduction.
- 6.D.6. The County shall ensure the conservation of sufficiently large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife.
- 6.D.7. The County shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, nutrient catchment, and wildlife habitats. Such communities shall be restored or expanded, where possible.

#### ***Placer County Tree Ordinance***

The Placer County Tree Ordinance applies to any project with the potential to affect protected trees. Protected trees are defined as any native tree species with a diameter at breast height (DBH) of six inches or greater or a combined multiple trunk DBH of at least ten inches. The Placer County Tree Ordinance acknowledges the County's value for native trees and their preservation. This ordinance prohibits the removal of landmark trees, including stands or groves of native trees, native tree corridors, and other significant native tree habitats. In addition, trees that are designated for preservation and avoidance are not to be damaged, and damage penalties of up to 50,000 dollars per scar can be assessed by the County. Removal of trees from riparian areas is also prohibited by the ordinance without prior evaluation and consideration of suitable mitigation measures.

#### ***Placer County Conservation Plan***

The draft Placer County Conservation Plan (PCCP) is a proposed strategy and regulatory framework designed to guide and streamline permitting for large-scale development in western Placer County over the next 50 years while establishing a network of conservation areas to protect and conserve sensitive species and natural communities (Placer County, 2011). The draft PCCP covers approximately 221,000 acres in western Placer County, including important natural communities such as stream environments, vernal pool grasslands, grasslands, blue oak and valley oak woodlands, and agricultural lands such as rice. Many stream and wetland resources found in the western part of Placer County are regulated under the FESA and the Clean Water Act because they provide aquatic habitat for threatened and endangered species. The goal of combining these regulatory frameworks is a streamlined permitting process and greater environmental benefits. The Agency Draft PCCP was released on February 1, 2011; however it is still in draft form and has not yet been adopted.

#### ***Horseshoe Bar/Penryn Community Plan***

The following are the relevant goals and policies identified within the Horseshoe Bar/Penryn Community Plan Natural Resources Management Element (Placer County, 2005) for biological resources.

##### **Goals: Natural Resources Management Element - Vegetation**

- (1) Preserve outstanding areas of native vegetation and trees, natural topographic features, wildlife habitats and corridors, and riparian corridors.

### 3.0 Affected Environmental and Environmental Consequences

- (2) Conserve significant grassland and wooded areas as essential economic, natural, and aesthetic resources.
- (3) Protect, restore, and enhance threatened and endangered species and the habitat which supports those species.

#### **Goals: Natural Resources Management Element – Fish and Wildlife**

- (1) Conserve the quality of habitats which support fish and wildlife species so as to maintain populations at sustainable levels.
- (2) Protect, restore, and enhance habitats for native animals, and protect threatened, endangered, and special-status species.

#### ***Granite Bay Community Plan***

The following are the relevant goals and policies identified within the Granite Bay Community Plan (updated 2012) for biological resources:

#### **Goals: Natural Resources Conservation Element**

1. Preserve and protect the natural features and resources of the community, which is essential to maintaining the quality of life within the community.
2. Protect the quality of air and water resources consistent with adopted federal, state and local standards.
3. Ensure that land use planning contributes to the protection, improvement, and restoration of water resources and that all new development has a minimum impact on the established natural environment.
6. Encourage public and private stewardship and partnerships directed to restoring, enhancing, and maintaining the natural environment.

#### **Policies**

3. Removal of vegetation shall be minimized and where removal is necessary, replanting for erosion control, maximizing reoxygenation, and retaining the aesthetic qualities of the community.
5. Continue to identify and preserve any rare, significant or endangered environmental features and conditions.
8. All stream influence areas, including floodplains and riparian vegetation areas shall be retained in their natural condition, while allowing for limited stream crossings for public roads, trails, and utilities.

### 3.0 Affected Environmental and Environmental Consequences

9. Site-specific surveys shall be required prior to development to delineate wetlands and vernal pools in the Granite Bay Community Plan area. All development proposals involving wetlands shall be coordinated with the California Department of Fish and Game, Corps of Engineers, and U.S. Fish and Wildlife Service. A "no-net-loss" policy requiring preservation of all wetland sites or preservation of priority wetlands and compensation for wetland losses should continue to be implemented by these agencies.
  
11. New construction shall not be permitted within 100 feet of the centerline of permanent streams and 50' of intermittent streams, or within the 100 year floodplain, whichever is greater.
  
13. Protect sensitive habitats such as wetlands, riparian areas, and oak woodlands against any significant disruption or degradation of habitat values. Utilize the following design and use regulations on parcels containing or in close proximity to these resources, excluding existing agricultural operations:
  - Structures shall be placed as far from the habitat as feasible;
  - Delineate development envelopes to specify location of development in minor land divisions and subdivisions;
  - Require easements, deed restrictions, or equivalent measures to protect that portion of a sensitive habitat on a project which is to be undisturbed by a proposed development activity or to protect sensitive habitats on adjacent parcels;
  - Limit removal of native vegetation to the minimum amount necessary for structures, landscaping/gardens, driveways, parking lots, and where applicable, septic systems; and,
  - Prohibit landscaping with invasive or exotic species and encourage the use of characteristic native species.
  
15. The County's Tree Preservation Ordinance shall be implemented.

#### 3.3.2 AFFECTED ENVIRONMENT

##### Records and Literature Search

Prior to conducting the biological surveys, AES obtained biological information for the Proposed Action area from the following sources:

- USFWS list, updated September 18, 2011, dated June 5, 2012, of Federally listed species with the potential to occur on or be affected by projects on the Rocklin and Folsom U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles (quads) and within Placer County (USFWS, 2011) (**Appendix E**);
- California Native Plant Society (CNPS) query, dated February 2, 2012, of state and Federally listed special status plant species known to occur on the Rocklin and Folsom quads (CNPS, 2012) (**Appendix E**);
- California Natural Diversity DataBase (CNDDB) query, dated October 1, 2011, of state and Federally listed special status species known to occur on the Rocklin and Folsom quads (CDFG, 2003) (**Appendix E**);

### 3.0 Affected Environmental and Environmental Consequences

- CNDDDB map of state and Federally listed special status species known to occur within five miles of the project site (CDFG, 2003);
- USFWS map of Federally listed species with designated critical habitat in the vicinity of the project site (USFWS, 2012); and
- USFWS National Wetlands Inventory (NWI) map of wetland features in the vicinity of the project site (USFWS, 1987).

#### Field Surveys

The study area includes the wastewater treatment plant (WWTP) site and a 30-foot buffer around the proposed force main alternative alignments. General biological surveys, focused botanical surveys, and Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; VELB) protocol-level surveys were conducted within the study area for the WWTP site and the proposed force main routes within the right-of-way of Auburn Folsom Road and Joe Rodgers Road on May 17 and 18, 2011. A focused botanical survey was conducted within the WWTP site and within the study area along Willow Lane and the segment of the Alternative A force main that extends through the open space area on May 8, 2012. General biological surveys and VELB protocol-level surveys were conducted within the study area along Willow Lane and the segment of the Alternative A force main that extends through the open space area on July 20, 2011 and February 8, 2012. The botanical surveys consisted of conducting a floristic inventory, in accordance with CDFG's (2009) plant survey protocols. The general biological surveys consisted of evaluating biological communities and documenting potential habitat for special status species with the potential to occur within the study area. The habitat types were classified using the *Manual of California Vegetation, Second Edition* (MCV; Sawyer et al, 2009) and were modified based on existing habitat conditions within the study area. Wetlands and other aquatic habitats within the study area were identified based on the wetland features mapped on the NWI map (USFWS, 1987). Wetland features were informally mapped within the WWTP site using criteria defined in the *1987 Wetland Delineation Manual* by the USACE and the *Regional Supplement for the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USFWS, 2008). Plants and wildlife observed during the biological surveys are identified in **Appendix F**.

The VELB protocol-level surveys consisted of walking along the proposed force main routes and within the WWTP site to locate elderberry shrubs that occur in the vicinity of the study area. The diameter at ground level (dgl) of all stems of each elderberry shrub were measured using calipers, elderberry shrub heights and driplines were estimated, and whether the elderberry shrubs occur within riparian habitat and whether elderberry stems containing exit holes were documented. Each elderberry shrub was mapped using a Trimble Geo XT™ geographic positioning system (GPS) receiver. The mapped locations of elderberry shrubs collected during the biological surveys were downloaded in a Geographic Information System (GIS). Elderberry shrubs mapped outside of the boundaries of the study area were removed from the aerial photographs and excluded from this report. A more detailed discussion of elderberry shrubs documented within the study area are provided in a separate report (**Appendix G**).

Standard references used for the biology and taxonomy of plants include: Abrams (1951, 1960), CNPS (2012), CDFG (2003, 2009), Hickman, ed. (1993), Mason (1957), Munz (1959), and Sawyer, Keeler-Wolf,

et al (2009). Standard references used for the characterization of habitat types and biotic communities include: Sawyer, et al (2009) and Holland (1989).

## Vegetation and Wildlife

This section discusses vegetation and wildlife resources in the study area. The discussion includes a description of biological habitat types, including waters of the U.S. that occur in the study area as well as plant and animal species associated with these habitat types. Potential effects of the project on vegetation and wildlife are discussed in **Section 3.3.3**.

The project area referenced in this discussion includes both the project impact area and the adjacent 30-foot buffer area, and hereafter referred to as the “study area” when there is no need to distinguish between the two areas.

The study area is located in an urban setting surrounded primarily by residential development. There are five different land cover types in the study area for the WWTP site: ruderal/developed, riparian, perennial stream, manmade drainage ditch, and seasonal wetland habitat types. The 30-foot buffer survey area for the proposed alternative force main routes is comprised of six different land cover types: ruderal/developed, annual grassland, riparian, oak woodland, perennial stream, pond, and roadside ditch habitat types. A habitat map of the project impact area is provided in **Appendix H**. Representative photographs of the habitat types are provided in **Figure 3.3-1a** and **Figure 3.3-1b**. Dominant vegetation occurring within each land cover type is described in further detail below.

The majority of the study area consists of disturbed habitat and does not provide high wildlife value due to nearby traffic on Auburn Folsom Road and the high level of human activity associated with proximity to urban areas. The project area lacks the quality of habitat needed to support diverse wildlife populations and their use; however, wildlife species that are tolerant of high levels of human disturbance may utilize the study area for foraging and cover. Several bird species were observed in the study area including black phoebe (*Sayornis nigricans*), killdeer (*Charadrius vociferous*), American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), red-shouldered hawk (*Buteo lineatus*), and mourning dove (*Zenaida macroura*). Small mammals and reptiles, such as California ground squirrel (*Spermophilus beecheyi*) and western fence lizard (*Sceloporus occidentalis*) were observed in the study area. Other small mammals including vole (*Microtus* spp.), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*) are expected to live in and use the study area for a dispersal corridor. A complete list of plant and animal species observed in the study area is included as **Appendix F**.

### **Habitat Types**

#### *Ruderal/Developed*

The majority of the WWTP site and force main construction corridor is comprised of ruderal/developed areas. These areas include paved and graded roads and road shoulders within the WWTP site and along Auburn Folsom Boulevard, Joe Rogers Road, and Willow Lane, a dirt road that extends through the open space area to the north of Willow Lane, infrastructure associated with the WWTP site, ornamental landscaping, and human-disturbed areas associated with earth-moving activities. Dominant weedy vegetation associated with this habitat type includes ripgut brome, soft chess, winter vetch (*Vicia villosa*),



**PHOTO 1:** View south from the northern portion of proposed pipeline route.



**PHOTO 2:** View south of proposed pipeline route at the intersection of Willow Lane and Auburn Folsom Road.



**PHOTO 3:** View southwest of WWTP.



**PHOTO 4:** View west of elderberry shrub on the west side of Auburn Folsom Road.



**PHOTO 5:** View southwest of elderberry shrub.



**PHOTO 6:** View of elderberry shrub.



**PHOTO 7:** View north of oak woodland along the proposed pipeline route.



**PHOTO 8:** View eastward of riparian habitat surrounding perennial stream along Auburn-Folsom Road just south of Twin Rocks Road.



**PHOTO 9:** View northwest of pond to the west of Willow Lane.



**PHOTO 10:** View south of manmade drainage ditch within the eastern portion of the WWTP site.



**PHOTO 11:** View west of existing manmade biofilter within the WWTP site. This manmade feature is incorrectly mapped as a freshwater emergent wetland on the NWI map.



**PHOTO 12:** View westward of swallow nests beneath bridge along Auburn-Folsom Road just south of Twin Rocks Road.

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prickly lettuce (*Lactuca serriola*), common sowthistle (*Sonchus oleraceus*), short-pod mustard (*Hirschfeldia incana*), wild oat, and rough cat's ear. Ornamental landscaping vegetation includes American sweetgum (*Liquidamber styraciflua*), palm (*Washingtonia* sp.), and California redwood (*Sequoia sempervirens*).

#### *Annual Grassland*

The annual grassland within the study area for the proposed force main routes consists primarily of nonnative annual grass species interspersed with native and nonnative forb species. Dominant vegetation associated with this habitat type includes wild oat (*Avena fatua*), Italian rye grass (*Lolium multiflorum*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), European hair grass (*Aira caryophyllaceae*), elegant brodiaea (*Brodiaea elegans*), fairy winecups (*Clarkia purpurea*), rough cat's ear (*Hypochaeris radicata*), blow-wives (*Achyrrachaena mollis*), and bluedicks (*Dichelostemma capitatum*).

#### *Riparian*

Riparian habitat occurs along the perennial streams and ponds that occur within the study area, including Miners Ravine and associated tributaries which cross beneath Auburn Folsom Road and the dirt road that extends through the open space area north of Willow Lane. This habitat type consists primarily of an overstory of Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), arroyo willow (*Salix lasiolepis*), Goodding's willow (*Salix gooddingii*), and white alder (*Alnus rhombifolia*). Understory shrub and herbaceous species include California rose (*Rosa californica*), narrow-leaved willow (*Salix exigua*), California coffeeberry (*Rhamnus californica*), western poison oak (*Toxicodendron diversilobum*), Himalayan blackberry (*Rubus discolor*), toad rush (*Juncus bufonius*), soft rush (*Juncus effuses*), spreading rush (*Juncus patens*), tall flatsedge (*Cyperus eragrostis*), and sedge (*Carex* sp.).

#### *Oak Woodland*

Oak woodland occurs within several segments of the study area for the proposed force main routes. Dominant overstory vegetation includes blue oak (*Quercus douglasii*), valley oak, and interior live oak (*Quercus wislizenii*), with scattered California buckeye (*Aesculus californica*) and foothill pine (*Pinus sabiniana*) dispersed throughout. The understory vegetation varies in density along the proposed pipeline route. Understory vegetation in some areas consists of species similar to those described within the nonnative annual grassland. Intermittently dense understory shrub vegetation occurs in other areas associated with rock outcroppings. Understory vegetation includes western poison oak, California coffeeberry, and buckbrush (*Ceanothus cuneatus*).

#### *Perennial Stream*

Perennial streams, including Miners Ravine and its tributaries, occur within the study area. Miners Ravine transects the northern boundary of the WWTP, crosses beneath the proposed force main routes for Alternatives B and C, and runs parallel to the proposed force main route that extends through the open space area for Alternative A. There are also several tributaries that cross beneath the proposed force main routes and drain to Miners Ravine. Dominant vegetation associated with the perennial streams is identical to those described within the riparian habitat.

#### *Pond*

Portions of three ponds, comprised of a total of 0.037 acres, occur within the 30-foot buffer area for the proposed force main alignment that extends through the open space area. Dominant vegetation occurring along the banks of this habitat type includes cattail (*Typha* sp.), pennyroyal (*Mentha pulegium*), and water plantain (*Alisma plantago-aquatica*).

#### *Seasonal Wetland*

One seasonal wetland occurs in the southwest corner of the WWTP site. This seasonal wetland receives water from a manmade drainage ditch constructed to the north of the seasonal wetland and by seepage from a water pump constructed within the WWTP site. Dominant hydrophytic vegetation includes water plantain, Mediterranean ryegrass, toad rush, and rabbit's foot grass (*Polypogon monspeliensis*).

#### *Manmade Drainage Ditch*

Four manmade drainage ditches occur within the WWTP site. These features are manmade channels that range from approximately 0.5 to three feet in width. One manmade drainage ditch drains to the seasonal wetland. The other manmade drainage ditches channel runoff from sheet flow within the WWTP site during precipitation events. Water within the manmade drainage ditches exits the WWTP site and drains to Miners Ravine. Dominant vegetation occurring within this habitat type includes rabbit's foot grass, hyssop loosestrife (*Lythrum hyssopifolium*), and fillaree (*Erodium botrys*).

#### *Roadside Ditch*

Several manmade roadside ditches occur within the study area for the proposed force main routes. Dominant vegetation occurring within the beds and along the banks of this habitat type includes prickly lettuce, wild oat, rigput brome, soft chess, and winter vetch.

#### **Potentially Jurisdictional Waters**

An informal delineation was conducted within the WWTP site. The following aquatic features occur within the WWTP site: Miners Ravine, which is a perennial stream, a seasonal wetland, and manmade drainage ditches. One manmade drainage ditch drains from the edge of Auburn-Folsom Road southwestward to the seasonal wetland. The seasonal wetland is an isolated feature that ponds water and lacks a direct hydrological connection to Miners Ravine. Therefore, the manmade ditch and the seasonal wetland are not likely considered waters of the U.S. The other three manmade drainage ditches drain offsite to Miners Ravine. The three manmade drainage ditches and Miners Ravine are considered waters of the U.S., subject to USACE jurisdiction.

A formal delineation has not been conducted for the proposed force main routes as all potential waters of the U.S. will be avoided during construction. Potentially jurisdictional features were determined based on those identified on the NWI map and surveys of the project area. Perennial streams, including Miners Ravine and its tributaries, are mapped as blue lined streams and six ponds are mapped as freshwater ponds on the NWI map (**Figure 3.3-2**). Only three of the six ponds identified on the NWI map occur within the survey area that extends through the open space area for Alternative A. The three ponds and the perennial streams, including Miners Ravine and its tributaries are considered waters of the U.S., subject to USACE jurisdiction. Roadside ditches occur along the entire proposed force main route within



SOURCE: USFWS National Wetlands Inventory, 1987; Placer County Aerial Photograph, 6/2011; Brown & Caldwell, 2011; AES, 2012

Placer County SMD 3 Regional Sewer Project EA/EIR / 210513 ■

**Figure 3.3-2**  
National Wetlands Inventory & Waters of the U.S.

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the Auburn Folsom Road and Joe Rodgers Road ROW. Roadside ditches are excavated wholly in drain-only uplands, and do not carry a relatively permanent flow of water, and therefore, are not likely considered waters of the U.S. because they do not have a significant nexus to downstream TNWs (51 FR 41206, 41217). The roadside ditches are not likely subject to USACE jurisdiction.

Miners Ravine is tributary to Dry Creek, located in Placer County. Dry Creek is a tributary of the Sacramento River via the Natomas Main Drain. The Sacramento River is a navigable waters of the U.S. for 26 miles from the Deep Water Ship Canals to the mouth.

#### Fisheries

This section discusses the fisheries resources and habitat that occur in the study area which includes Miners Ravine and the greater Dry Creek watershed downstream of the SMD 3 facility. The SMD 3 facility is approximately 11.5 stream miles upstream of the confluence with Dry Creek and approximately 16.5 stream miles upstream from the Dry Creek WWTP, located in the City of Roseville. A hydrologic study was conducted along Miners Ravine on January 27, February 10, and March 1, 2012. The hydrologic study was designed to evaluate the hydrologic effects that the decommissioning of the SMD 3 WWTP site will have on stream flows in Miners Ravine and conclude whether this reduction in additive streamflow would have any effect on fisheries resources. The results and analysis of the hydrologic study are provided in a separate report (**Appendix I**). The results are summarized herein and are discussed in further detail in **Section 3.7**.

Miners Ravine is designated critical habitat for the Central Valley Steelhead Distinct Population Segment (DPS) and is considered essential fish habitat (EFH) for chinook salmon under the MSA. Chinook salmon are documented to use the lower, easily accessible sections of Miners Ravine, near its confluence with Dry Creek, while steelhead have been documented to occur in the stream reaches near the SMD 3 facility during periods of high winter flows which allows them to navigate numerous barriers along Miners Ravine. In addition to these Federally listed salmonids there are numerous native fish species with the potential to occur in the study area including but not limited to: California roach (*Lavinia symmetricus*), Hitch (*Lavinia exilicauda*), Sacramento pikeminnow (*Ptychocheilus grandis*), Sacramento sucker (*Catostomus occidentalis*), and riffle sculpin (*Cottus gulosus*). Non-native species with the potential to occur in Miners Ravine include but are not limited to: Bluegill (*Lepomis machrochirus*), green sunfish (*Lepomis cyanellus*), Common carp (*Cyprinus carpio Linneaus*), Golden shiner (*Notemigonus crysoleucas*), goldfish (*Carassius auratus*), largemouth bass (*Micropterus salmoides*), spotted bass (*Micropterus punctulatus*), green sunfish (*Lepomis cyanellus*), and western mosquitofish (*Gambusia affinis*).

Miners Ravine maintains a perennial flow that is highly responsive to rainfall in the winter and spring while summer flows are maintained by groundwater interactions, upper watershed springs, as well as rural and urban runoff from summer irrigation. The Miners Ravine watershed is dominated by granitic parent materials that are highly erodible and mobile in the system. These natural geomorphic conditions limit the usable amount of spawning sized substrates available to salmonids as finer decomposing granitic materials are deposited in pools, glides, and pool tail outs. During the hydrologic study it was noted that most suitable spawning sized materials were located in shallow riffles where these coarse substrates were cemented by finer particles and difficult to manipulate by hand. Because the most suitable

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spawning sized substrates for salmonids are located in these shallow riffle habitats, optimal spawning conditions would be limited to flows that maintain a suitable range of depth and velocity. Winter base flows observed in the range of 3 cubic feet per second (cfs) were noted to provide marginal depth and velocity for steelhead trout spawning requirements while moderate flows following winter rainfall events provided suitable depth and velocities on a sporadic storm to storm basis. Based on these observations, it is likely that steelhead are dependent on above average water years to maintain optimal habitat conditions for extended hydrologic periods to successfully spawn in Miners Ravine. During these higher winter base flow periods the change in stage resulting from the decommissioning of the WWTP would be insignificant as reported in the hydrologic study (**Appendix I**).

During summer low flow conditions, fish take refuge in pool habitats and beaver ponds which provide cover and thermal refuge as water temperatures increase and dissolved oxygen levels decrease. These pool habitats would not be readily affected by very small changes in flow during the summer months as they act as small reservoirs that maintain a constant surface water elevation controlled by the pool tailout. Additionally, because Miners Ravine is not supplied cool water from spring snowmelt or onstream reservoir releases, temperatures in the summer would not offer ideal rearing conditions for successfully spawned salmonids. During the summer months Miners Ravine is best suited for California native minnows that are tolerant of high temperatures and low dissolved oxygen levels. As such, salmonids likely migrate downstream to the lower Dry Creek system where summer rearing conditions are better suited. The results from the hydrologic study (**Appendix I**) indicate that the change in stage resulting from the decommissioning the WWTP would not have an adverse affect on steelhead migration, spawning or rearing based on the life history requirements of the species.

In addition to the fish species noted above for Miners Ravine, the lower Dry Creek watershed has the potential to support a number of native and non-native fish species common to the central valley zoogeographic region. Native fish species with the potential to occur in the lower Dry Creek watershed may include but are not limited to the pacific lamprey (*Lampetra tridentada*), river lamprey (*Lampetra ayresii*), western brook lamprey (*Lampetra richardsonii*), Sacramento blackfish (*Orthodon microlepidotus*), and hardhead (*Mylopharodon conocephalus*). Non-native species with the potential to occur in the lower Dry Creek watershed may include but are not limited to the golden shiner (*Notemigonus crysoleucas*), fathead minnow (*Pimephales promelas* Rafinesque), red shiner (*Cyprinella lutrensis*), black bullhead (*Ameiurus melas*), brown bullhead (*Ameiurus nebulosus*), white catfish (*Ameiurus catus*), and the redear sunfish (*Lepomis microlophus*).

#### Special Status Species

For the purposes of this assessment, special status has been defined to include those species that are:

- Listed as endangered or threatened under the FESA (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the CESA (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);

- Designated as species of concern to the CDFG; or
- Defined as rare or endangered under the CEQA.

**Table 3.3-1** summarizes the regionally occurring special status species identified on the USFWS, CNPS, and the CNDDDB lists and provides a rationale as to whether the species have the potential to occur within the study area. Presence of the species or their habitat was evaluated during the biological surveys. Species without the potential to occur in the vicinity of the study area are not discussed further in this section. Special status species with the potential to occur within the study area are discussed in detail below, including distances from the study area to reported CNDDDB occurrences (CDFG, 2003). A CNDDDB map of special status species documented within a five-mile radius of the study area is provided in **Figure 3.3-3**. A critical habitat map in the vicinity of the study area is provided in **Figure 3.3-4**.

#### ***Special Status Plants***

##### **Brandegee's Clarkia (*Clarkia biloba ssp. brandegeae*)**

Federal Status – None

State Status – None

Other – CNPS 1B

Brandegee's clarkia is an annual herb found in chaparral and cismontane woodland, often in roadcuts, from 73 to 915 meters. The blooming period for this species is from May through July (CNPS, 2012). This species is known from Butte, El Dorado, Nevada, Placer, Sacramento, Sierra, and Yuba counties (CNPS, 2012).

There are three CNDDDB records for Brandegee's clarkia within five miles of the study area. The nearest record is from 2009 and is mapped approximately 3.5 miles northeast of the proposed pipeline route on the Pilot Hill quad (CNDDDB occurrence number: 85). The record states that over 1,000 plants were observed on a road bank with sparse cover of grasses and forbs under blue oak and gray pine.

The oak woodland within the study area provide potential habitat for Brandegee's clarkia. The May 17 and 18, 2011, July 20, 2011, and May 8, 2012 focused botanical surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed in the study area. This species does not occur in the study area.

##### **Dwarf Downingia (*Downingia pusilla*)**

Federal Status – None

State Status – None

Other – CNPS 2

Dwarf downingia is an annual herb found in valley and foothill grassland and vernal pools from zero to 450 meters. The blooming period for this species is from March through May. This species is known from Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties in California and in South America (CNPS, 2012).

TABLE 3.3-1

## REGIONALLY OCCURRING FEDERAL, STATE, AND CNPS LISTED SPECIAL-STATUS SPECIES AND THEIR DESIGNATED CRITICAL HABITAT

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
<b>Plants</b>					
<i>Calystegia stebbinsii</i> Stebbins' morning glory	FE/CE/1B	Known from El Dorado and Nevada counties (CNPS, 2012).	Perennial rhizomatous herb found on gabbroic or serpentinite soils in cismontane woodland and chaparral, often in openings, from 185- to 730 meters (CNPS, 2012).	April-July	No. The study area does not occur within the known geographic range and does not provide suitable soils for this species.
<i>Ceanothus roderickii</i> Pine Hill ceanothus	FE/CR/1B	Known from El Dorado County (CNPS, 2012).	Evergreen shrub found on serpentinite or gabbroic soils in chaparral and cismontane woodland from 260 to 630 meters (CNPS, 2012).	April-June	No. The study area does not occur within the known geographic range and does not provide suitable soils for this species.
<i>Clarkia biloba</i> ssp. <i>brandegeeae</i> Brandegee's clarkia	--/--/1B	Known from Butte, El Dorado, Nevada, Placer, Sacramento, Sierra, and Yuba counties (CNPS, 2012).	Annual herb found in chaparral and cismontane woodland, often in roadcuts; from 73 to 915 meters (CNPS, 2012).	May-July	Yes. The study area contains habitat for this species. See text.
<i>Downingia pusilla</i> Dwarf downingia	--/--/2	Known from Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties in California and in South America (CNPS, 2012).	Annual herb found in valley and foothill grassland, occasionally on mesic soils, and in and vernal pools from 1 to 445 meters (CNPS, 2012).	March-May	Yes. The study area contains habitat for this species. See text.
<i>Galium californicum</i> ssp. <i>sierrae</i> El Dorado bedstraw	FE/CR/1B	Known from El Dorado County (CNPS, 2012).	Perennial herb found on gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest from 100 to 585 meters (CNPS, 2012).	May-June	No. The study area does not occur within the known geographic range and does not provide suitable soils for this species.
<i>Gratiola heterosepala</i> Boggs Lake hedge- hyssop	--/CE/1B	Known from Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, and Tehama counties in CA and in Oregon (CNPS, 2012).	Annual herb found on clay soils in vernal pools and along the lake margins of marshes and swamps from 10 to 2,375 meters (CNPS, 2011).	April-August	No. The study area does not provide habitat for this species.
<i>Navarretia myersii</i> ssp. <i>myersii</i> Pincushion navarretia	--/--/1B	Known from Amador, Calaveras, Merced, Placer, and Sacramento counties (CNPS, 2011).	Annual herb often found in vernal pools from 20 to 330 meters (CNPS, 2012).	May	No. The study area does not provide habitat for this species.

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SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
<i>Orcuttia viscida</i> Sacramento Orcutt grass	FE,CH/CE/1B	Known from Sacramento County (CNPS, 2012).	Annual herb found in vernal pools from 30 to 100 meters (CNPS, 2012).	April-July	No. The study area does not provide habitat for this species. The study area does not occur within USFWS designated critical habitat for this species.
<i>Packera (Senecio) layneae</i> Layne's ragwort	FT/CR/1B	Known from Butte, El Dorado, Tuolumne, and Yuba counties (CNPS, 2012).	Perennial herb found on rocky, gabbroic or serpentinite soils in chaparral and cismontane woodland from 200 to 1,000 meters (CNPS, 2012).	April-August	No. The study area does not occur within the known geographic range and does not provide suitable soils for this species.
<i>Rorippa subumbellata</i> Tahoe yellow-cress	FC/CE/1B	Known from El Dorado, Nevada, and Placer counties in California and in Nevada (CNPS, 2012).	Rhizomatous herb often found on decomposed granitic beaches in lower montane coniferous forest and meadows and seeps from 1,895 to 1,900 meters (CNPS, 2012).	May-September	No. The project site does not occur within the known elevation range for this species.
<b>Invertebrates</b>					
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	FE/--/--	Known from a few isolated populations distributed over a large portion of California's Central Valley and in southern California including Glenn, Merced, Solano, Stanislaus, and Tehama, counties (Eriksen and Belk, 1999).	Found in ephemeral wetland habitats and vernal pools that fill by winter and hold water until June on clay, volcanic, and alluvial soils within grassland communities from 5 to 145 meters (Eriksen and Belk, 1999).	Wet season: November to April (adults) Dry season: May to October (cysts)	No. The study area is outside of the geographical range for this species.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT, CH/--/--	Known from Alameda, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Kings, Madera, Merced, Monterey, Napa, Placer, Riverside, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Ventura, Yolo, and Yuba counties in California and in southern Oregon (NatureServe, 2011).	Found commonly in a small swale earth slump or basalt-flow depression basin with grassy or muddy bottom in unplowed grassland from 10 to 290 meters in the Central Valley and up to 1,159 meters in the South Coast Mountains Region (Eriksen and Belk, 1999).	Wet season: December to May (adults) Dry season: June to November (cysts)	No. The study area does not contain habitat for this species. The study area does not occur within USFWS designated critical habitat for this species.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT, CH/--/--	Known from Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Fresno, San Joaquin, Shasta, Solano,	Found in riparian forest communities from 0 to 762 meters. Exclusive host plant is elderberry ( <i>Sambucus</i> species), which must have stems at least one inch in	Year round	Yes. The study area contains habitat for this species. The study area does not occur within

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SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
		Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (NatureServe, 2011).	diameter for the beetle (NatureServe, 2011).		USFWS designated critical habitat for this species. See text.
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FE, CH/--/--	Known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Kings, Merced, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1994).	Found in a variety of natural and artificial, seasonally ponded habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetland habitats vary in size from 2 square meters to 356,253 square meters and vary in depth from 2 to 15 centimeters (Helm, 1998).	Wet season: November to April (adults) Dry season: May to October (cysts)	No. The study area does not contain habitat for this species. The study area does not occur within USFWS designated critical habitat for this species.
<b>Fish</b>					
<i>Hypomesus transpacificus</i> Delta smelt	FT/CT/--	Known almost exclusively in the Sacramento-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay (Moyle, 2002).	Found in estuarine waters. Majority of life span is spent within the freshwater outskirts of the mixing zone (saltwater-freshwater interface) within the Delta (Moyle, 2002).	Consult Agency	No. The study area does not contain habitat for this species.
<i>Oncorhynchus</i> (=Salmo) <i>clarki henshawi</i> Lahontan cutthroat trout	FT/--/--	Known from the Carson River, Truckee River, and Walker River drainages in California (USFWS, 1995).	Found in a wide variety of habitats and temperatures including alpine headwater streams, valley bottom rivers, and lakes. In streams, substrate composition, cover, geomorphology, and water quality are important components (USFWS, 1995).	Consult Agency	No. The study area does not occur within the known geographic range for this species.
<i>Oncorhynchus mykiss</i> <i>steelhead</i> Central Valley steelhead	FT,CH/--/--	Spawn in the Sacramento and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area (Moyle, 2002).	Found in cool, clear, fast-flowing permanent streams and rivers with riffles and ample cover from riparian vegetation or overhanging banks. Spawning: streams with pool and riffle complexes. For successful breeding, require cold water and gravelly streambed (Moyle, 2002).	Consult Agency	Yes. The study area contains habitat for this species. The study area occurs within critical habitat for this species. See text.
<i>Oncorhynchus tshawytscha</i> Chinook salmon Central Valley spring-run	FT/CT/--	Spawn in the Sacramento River and some of its tributaries. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle, 2002).	Spawning occurs in large deep pools in tributaries with moderate velocities (Moyle, 2002).	Consult Agency	No. The study area is outside the known geographic distribution for this species.
<i>Oncorhynchus tshawytscha</i>	FE/CE/--	Spawn in the upper Sacramento River. Juveniles migrate from spawning grounds	Returns to the Upper Sacramento River in the winter but delay spawning until spring	Consult Agency	No. The study area is outside the known

### 3.0 Affected Environmental and Environmental Consequences

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
Chinook salmon Winter-run, Sacramento River		to the Pacific Ocean (Moyle, 2002).	and summer. Juveniles spend 5-9 months in the river and estuary before entering the ocean (Moyle, 2002).		geographic distribution for this species.
<b>Amphibians</b>					
<i>Ambystoma californiense</i> California tiger salamander	FT/CT/--	Known from Alameda, Butte, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Monterey, Sacramento, San Benito, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Stanislaus, Tulare, and Yolo counties (Stebbins, 2003).	Found in vernal pools, ephemeral wetlands, and seasonal ponds, including constructed stockponds, in grassland and oak savannah plant communities from 3 to 1,054 meters (Stebbins, 2003).	November-February (adults) March 15 -May15 (larvae)	No. The study area does not contain habitat for this species.
<i>Rana aurora draytonii</i> California red-legged frog	FT, CH/CSC/--	Known along the Coast from Mendocino County to Baja California, and inland through the northern Sacramento Valley into the foothills of the Sierra Nevada mountains, south to eastern Tulare County, and possibly eastern Kern County. Currently accepted range excludes the Central Valley (NatureServe, 2011).	Found in permanent and temporary pools of streams, marshes, and ponds with dense grassy and/or shrubby vegetation from 0 to 1,160 meters (NatureServe, 2011).	November-June	No. Although the study area contains habitat, it is located outside of the known geographic distribution for this species. The study area does not occur within USFWS designated critical habitat for this species. See text for further discussion.
<i>Rana muscosa</i> Mountain yellow-legged frog	FC/CSC/--	Known from Sierra Nevada, California from 1,074 to 3,660 meters and from southern California from 370 to 2,290 meters (Stebbins, 2003).	Found in sunny riverbanks, meadow streams, isolated pools, and rocky stream courses with steep gradients. Prefers sloping banks with rocks or vegetation to the water's edge (Stebbins 1985). The species is rarely found away from water, but it may cross upland areas in moving between summer and winter habitats. Wintering sites include areas near shore under ledges and in deep underwater crevices (Stebbins, 2003).	Consult Agency	No. The study area does not occur within the known elevation range for this species.
<i>Spea hammondi</i> Western spadefoot toad	--/CSC/--	Known from Redding, throughout the Central Valley and adjacent foothills, south along the coast range from Point Conception into northern Baja California (Morey and Reznick, 2000).	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains from 0 to 1,200 meters.	Year round	No. The study area does not contain habitat for this species.

3.0 Affected Environmental and Environmental Consequences

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
			Rainpools containing minimal numbers of bullfrogs, fish, or crayfish are necessary for breeding (Californiaherps, 2011).		
<b>Reptiles</b>					
<i>Emys marmorata</i> western pond turtle	--/CSC/--	Known throughout California west of the Sierra-Cascade crest. Absent from desert regions except along the Mohave River and its tributaries (Stebbins, 2003).	Found in permanent ponds, lakes, streams, irrigation ditches, permanent pools and along intermittent streams. Requires aquatic habitats with suitable basking sites. Nest sites most often characterized as having gentle slopes less than 15 percent with little vegetation or sandy banks. Found from 0 to 1,430 meters (Stebbins, 2003).	All year	Yes. The study area contains habitat for this species. See text.
<i>Thamnophis gigas</i> Giant garter snake	FT/CT/--	Known from Butte, Colusa, Contra Costa, Fresno, Glenn, Kern, Madera, Merced, Sacramento, San Joaquin, Solano, Sutter, Yolo, and Yuba counties (Stebbins, 2003).	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands. Requires adequate water during its active season (early spring through mid-fall) to provide food and cover, emergent, herbaceous wetland vegetation for foraging and cover, grassy banks and openings in waterside vegetation for basking, and higher elevation uplands for cover and refuge from flood waters during its dormant season (winter). Inhabits small mammal burrows and other soil crevices with sunny exposure along south and west facing slopes, above prevailing flood elevations when dormant (Stebbins, 2003).	March-October	No. The study area does not contain habitat for this species.
<b>Birds</b>					
<i>Agelaius tricolor</i> Tricolored blackbird	--/CSC/--	Known from the Central Valley and surrounding foothills, throughout coastal and some inland localities in southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California (Beedy and Hamilton, 1999).	Found nesting in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water. Feeds in grass and cropland habitats California (Beedy and Hamilton, 1999). Tricolored blackbirds are highly colonial nesters, requiring nesting areas large enough to support at least 50 pairs (Grinnell and Miller, 1944).	Year round	Yes. The study area contains foraging habitat for this species. See text.

### 3.0 Affected Environmental and Environmental Consequences

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
<i>Coccyzus americanus</i> Yellow-billed cuckoo	FC/SE/--	Known from California, Arizona, and New Mexico on the west side of the Continental Divide. Known from the Colorado River, Sacramento and Owens valleys, and along the South Fork of the Kern River, the Santa Ana River, the Amargosa River, and the Luis Rey River in California (Hughes, 1999). Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California (Gaines and Laymon, 1984).	Breeds and forages in valley foothill and desert riparian communities. Requires dense riparian thickets (especially willow and salt-cedar) of slow-moving watercourses. This species will also utilize orchards (Hughes, 1999).	June-September	No. The project site does not provide habitat for this species.
<i>Elanus leucurus</i> White-tailed kite	--/CFP/--	Permanent resident of coastal and valley lowlands (NatureServe, 2011).	Habitats include savanna, open woodland, marshes, partially cleared lands and cultivated fields, mostly in lowland situations. Nesting occurs in trees (NatureServe, 2011).	Year round	Yes. The study area contains foraging habitat for this species. See text.
<i>Laterallus jamaicensis conturmiculus</i> California black rail	--/CT/--	Small populations and individual records scattered throughout North America and California (NatureServe, 2011).	In habits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. In freshwater, usually found in bulrushes, cattails, and saltgrass. Usually found in immediate vicinity of tidal sloughs. Needs water depths of about 1 inch that does not fluctuate during the year, and dense vegetation for nesting habitat (NatureServe, 2011).	Year round	No. The study area does not contain habitat for this species.
<i>Progne subis</i> Purple martin	--/CSC/--	Known from Mendocino, Napa, Sonoma, Lake, Riverside, Sacramento, San Luis Obispo, Placer, Shasta, San Diego and Monterey counties (NatureServe, 2011).	Found in a variety of wooded, low-elevations habitats. Uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. Inhabits more open areas in winter (NatureServe, 2011).	All Year	Yes. The study area contains foraging habitat for this species. See text.
<b>Mammals</b>					
<i>Antrozous pallidus</i> Pallid bat	--/CSC/--	Known from arid and semi-arid regions across much of the American west, up	Found in grasslands, shrublands, woodlands, and forests from sea level up	Year round	Yes. The study area contains foraging habitat

### 3.0 Affected Environmental and Environmental Consequences

SCIENTIFIC NAME COMMON NAME	FEDERAL/ STATE/CNPS STATUS	DISTRIBUTION	HABITAT REQUIREMENTS	PERIOD OF IDENTIFICATION	POTENTIAL TO OCCUR ON-SITE
		and down the coast from Canada and Mexico (Arizona-Sonora Desert Museum, 2006-2009).	through mixed conifer forests from 0 to 2,000 meters. The species is most common in open, dry habitats with rocky areas for roosting. Roosts also include cliffs, abandoned buildings, bird boxes, and under bridges (Harris, 1990).		for this species. See text.
<i>Martes pennanti</i> West Coast Distinct Population Segment Pacific fisher	FC/CSC/--	Distributed along the Sierra Nevada, Cascades and Klamath Mountains and in a few areas in the north Coast Ranges.	Found in intermediate to dense mature stands of trees (coniferous forests) and deciduous riparian habitats with a high percent canopy closure. Utilizes cavities in large trees, snags, logs, rock areas, or shelters provided by slash or brush piles.	Year Round	No. The study area does not occur within the known geographic range for this species.

#### STATUS CODES

##### FEDERAL: United States Fish and Wildlife Service

FE Federally Endangered  
 FT Federally Threatened  
 FC Federal Candidate for Listing

##### STATE: California Department of Fish and Game

CE California Listed Endangered  
 CR California Listed Rare  
 CT California Listed Threatened  
 CSC California Species of Concern  
 CFP California Fully-Protected

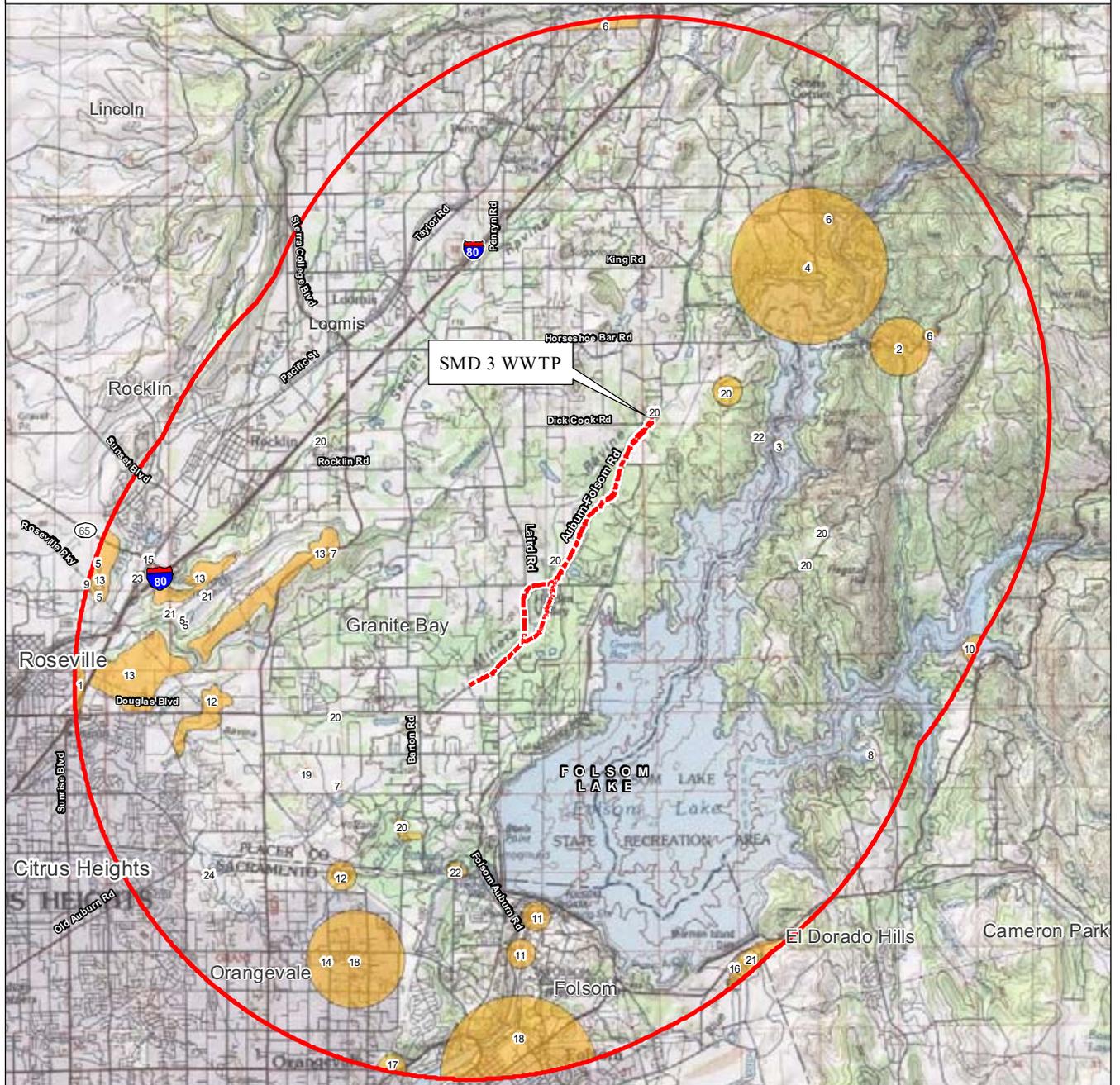
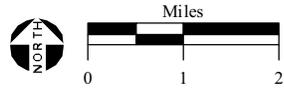
##### CNPS: California Native Plant Society

List 1A Plants Presumed Extinct in California  
 List 1B Plants Rare, Threatened, or Endangered in California and Elsewhere  
 List 2 Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

SOURCE: USFWS, 2011; CDFG, 2003; CNPS, 2012

**LEGEND**

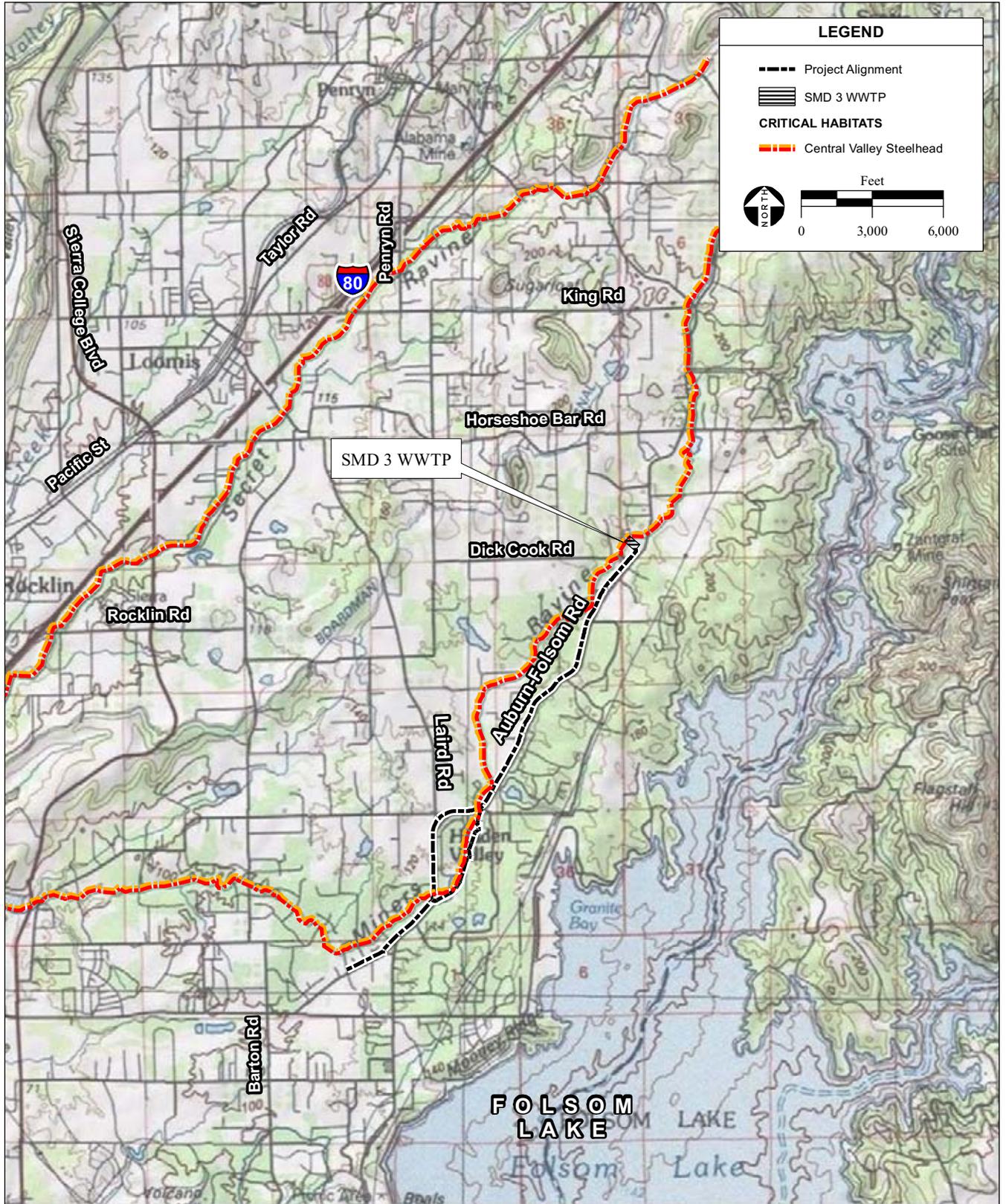
 Project Alignment	1 - A vernal pool andrenid bee	9 - dwarf downingia	17 - Sacramento Orcutt grass
 SMD 3 WWTP	2 - Alabaster Cave harvestman	10 - El Dorado bedstraw	18 - silver haired bat
 CNDDB Occurrences	3 - bald eagle	11 - great blue heron	19 - tricolored blackbird
	4 - big scale balsamroot	12 - Northern Hardpan Vernal Pool	20 - valley elderberry longhorn beetle
	5 - Boggs Lake hedge hyssop	13 - Northern Volcanic Mud Flow Vernal Pool	21 - vernal pool fairy shrimp
	6 - Brandegee's clarkia	14 - pallid bat	22 - western pond turtle
	7 - California linderiella	15 - purple martin	23 - western spadefoot
	8 - California red legged frog	16 - Ricksecker's water scavenger beetle	24 - white tailed kite



SOURCE: USGS 7.5 Minute Topographic Quadrangles: "Rocklin, CA" T11N R7E, Sections 24,25,26,35,36 "Pilot Hill, CA" T11N R8E, Sections 18,19 "Folsom, CA" T10N R7E, Sections 1,2 Mt. Diablo Baseline & Meridian; AES, 2012

Placer County SMD 3 Regional Sewer Project EA/EIR / 210513 ■

**Figure 3.3-3**  
CNDDB 5-Mile Radius Map



SOURCE: USFWS Critical Habitat Surveys; USGS 100k Topographic Quadrangle, Mt. Diablo Baseline & Meridian; AES, 2012

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**Figure 3.3-4**  
Critical Habitats

### 3.0 Affected Environmental and Environmental Consequences

There is one CNDDDB record for dwarf downingia within five miles of the study area. The record is from 1997 and is approximately five miles west of the study area on the Roseville quad (CNDDDB occurrence number: 36). The record states that the occurrence is possibly extirpated. The record states that approximately 1,500 plants were observed in 1987 in vernal pools prior to being graded in 1997.

The nonnative annual grassland within the study area provides potential habitat for dwarf downingia. The May 17 and 18, 2011 focused botanical surveys conducted along the proposed force main alignment within the Auburn Folsom Road and Joe Rodgers Road ROW and within the WWTP site were performed within the evident and identifiable blooming period for this species. This species was not observed within these portions of the study area. The May 8, 2012 focused botanical surveys conducted along the WWTP site, Willow Lane, and the open space area were performed within the evident and identifiable blooming period for this species. This species was not observed within these portions of the study area. This species does not occur within the study area.

#### **Boggs Lake Hedge-Hyssop (*Gratiola heterosepala*)**

Federal Status – None

State Status – Endangered

Other – CNPS 1B

Boggs Lake hedge-hyssop is an annual herb found on clay soils in vernal pools and along the lake margins of marshes and swamps from ten to 2,375 meters. The blooming period for this species is from April through August. Boggs Lake hedge-hyssop is known from Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, and Tehama counties in California and in Oregon (CNPS, 2012).

There is no critical habitat designated for Boggs Lake hedge-hyssop. Boggs Lake hedge-hyssop is covered as a species of concern under the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Recovery Plan; USFWS, 2005). The study area is within the Southeastern Sacramento Valley Vernal Pool Region. The study area does not occur within any of the Core Areas of the Recovery Unit Boundary. There is one CNDDDB record for Boggs Lake hedge-hyssop in two locations within five miles of the study area. The nearest location of the mapped record is from 1987 and is mapped approximately four miles west of the study area on the Rocklin quad (CNDDDB occurrence number: 15). The record states that more than 500 plants were observed in northern mudflow vernal pool in annual grassland near the edge of oak woodland.

The ponds in the vicinity of the study area provide habitat for Boggs Lake hedge-hyssop. The May 17 and 18, 2011, July 20, 2011, and May 8, 2012 focused botanical surveys were conducted within the evident and identifiable blooming period for this species. This species was not observed in the study area. This species does not occur in the study area.

## ***Special Status Wildlife***

### **Invertebrates**

#### **Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*; VELB)**

Federal Status: Threatened, Critical Habitat

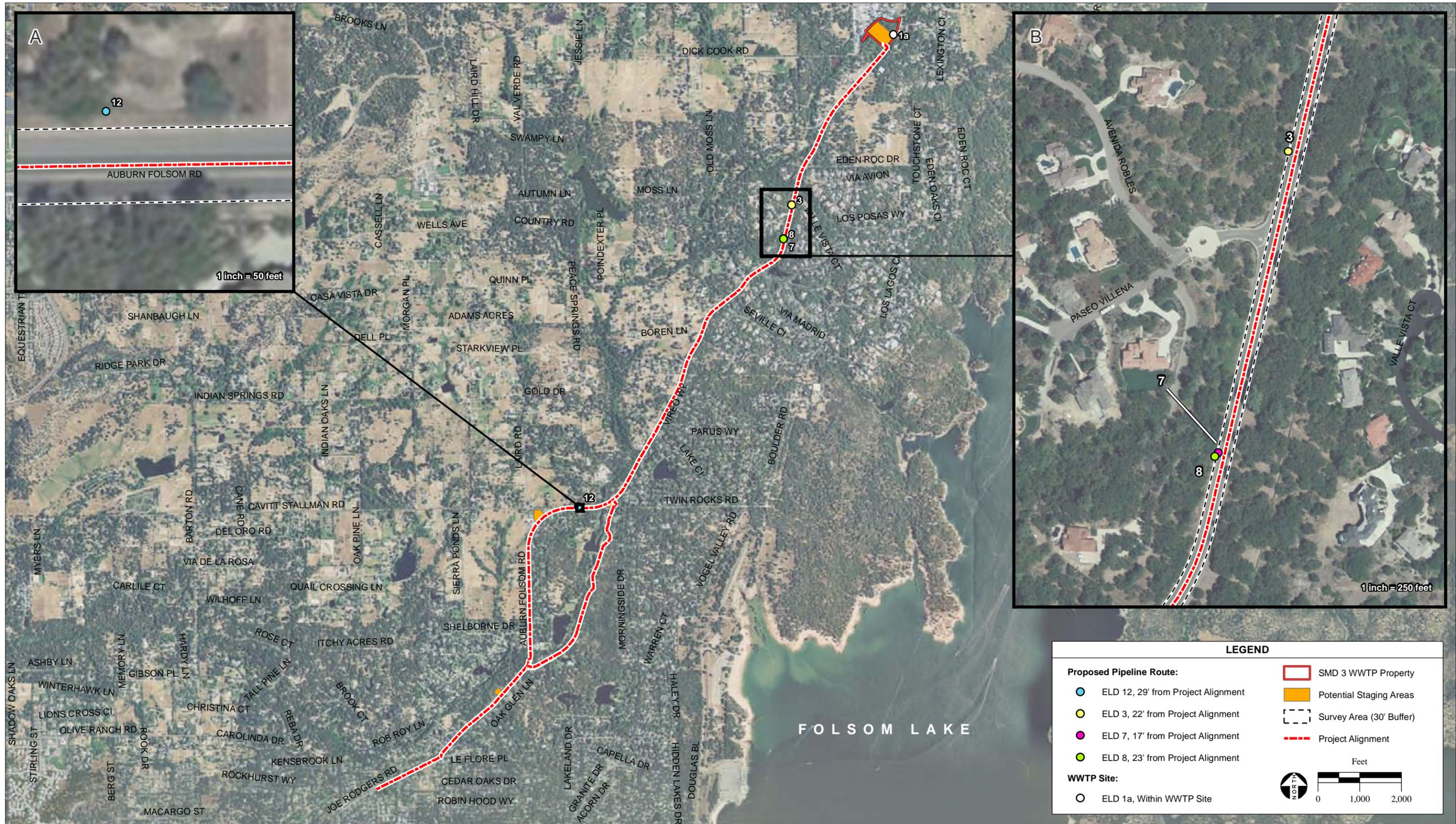
State Status: None

VELB are completely dependent on elderberry (*Sambucus* sp.) shrubs as their host plants during their entire life cycle. VELB inhabit elderberry shrubs in the vicinity of California's Central Valley. VELB larvae live within the soft pith of elderberry shrubs where they feed for one to two years. Adults emerge from pupation inside the wood of elderberry shrubs during the spring as the plants begin to flower. The adults feed on the elderberry foliage until they mate. Females lay their eggs in the crevices of elderberry bark. The larvae subsequently tunnel into shrub stems to feed upon hatching. VELB typically utilize stems that are greater than one inch in dgl. VELB are known from Amador, Butte, Calaveras, Colusa, El Dorado, Fresno, Glenn, Kern, Madera, Mariposa, Merced, Napa, Placer, Fresno, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties (USFWS, 1999).

There are eight CNDDDB records for VELB within five miles of the study area. The nearest record is from 1991 (CNDDDB occurrence number: 85) and is mapped in the vicinity of the northern portion of the study area on the Rocklin quad. The record states that two clumps of elderberry shrubs contained several exit holes in a habitat comprised of oak woodland on hilly and rocky substrate, with scattered elderberry shrubs and western poison oak. Although the USFWS list of species within Placer County identifies critical habitat as occurring within Placer County, critical habitat is not documented on the USFWS list of species on the Folsom and Rocklin quads. The project site does not occur within designated critical habitat for this species.

The USFWS (1999) *Conservation Guidelines for Valley Elderberry Longhorn Beetle* (Conservation Guidelines) state that no adverse effects to VELB are expected when project activities occur at least 100 feet from elderberry shrubs with stems measuring at least one inch dgl. However, as previously stated, the study area was reduced to a 30-foot buffer around the proposed pipeline route because the majority of the project site is surrounded by private, fenced in residential land. The Conservation Guidelines also state that, in areas where encroachment into the 100-foot buffer is necessary, the encroachment must be approved by the USFWS and a minimum setback of 20 feet from the driplines of the elderberry shrubs must be maintained. Project activities that will encroach into the 20-foot minimum setback area are expected to adversely affect VELB (USFWS, 1999).

One elderberry shrub comprised of stems measuring one inch dgl occurs within the study area associated with the WWTP site (**Figure 3.3-5**). The elderberry shrub occurs within the northern portion of the WWTP site, to the north of the northern entrance to the WWTP site and to the south of Miners Ravine. This elderberry shrub is separated from the WWTP operations by an existing fence, and is situated at the transition between the ruderal/developed areas and the riparian habitat. Multiple stems of the elderberry shrub have been removed, likely due to maintenance activities associated with overhead utilities. The remaining stems on the elderberry shrub do not contain exit holes.



### 3.0 Affected Environmental and Environmental Consequences

Four elderberry shrubs comprised of stems measuring one inch dgl occur within the study area associated with the proposed force main alternatives. Only one elderberry shrub (ELD 7) occurs within 20 feet of the proposed pipeline footprint. None of the four elderberry shrubs comprised of stems measuring one inch dgl contain exit holes nor do any occur within riparian habitat. The majority of elderberry shrubs are situated in isolated clusters on land that has previously been disturbed. The locations of the elderberry shrubs occurring within the study area and their proximity to the proposed force main footprint are identified on **Figure 3.3-5**.

The elderberry shrubs within the study area provide habitat for VELB. No exit holes were observed within the stems of the elderberry shrubs. Potential VELB habitat occurs within the study area.

#### **Fish**

##### **Central Valley Steelhead (*Oncorhynchus mykiss*) Distinct Population Segment (DPS)**

Federal Status – Threatened, Critical Habitat

State Status – None

The Central Valley steelhead Distinct Population Segment (DPS) spawn and emerge in the freshwater streams where they were born. This DPS maintains a strict winter run strategy where migration initiates directly from the ocean when fall and winter rainfall produces significant increases in stream flows. After emergence, juveniles remain in the freshwater environment for one to two years prior to migrating to the Pacific Ocean. When sexual maturity is reached, they migrate back to their natal streams to spawn. This DPS has an average lifespan of six to seven years; it does not usually die immediately after spawning, and is capable of spawning several times throughout its lifetime (Moyle, 2002). The range of this DPS includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo bays and their tributaries, and two artificial propagation programs. The range includes portions of Amador, Alameda, Butte, Calaveras, Contra Costa, Colusa, Glenn, Mariposa, Merced, Nevada, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tuolumne, Yolo, and Yuba counties (CDFG, 2003).

The study area occurs within a stream reach designated as critical habitat for the Central Valley steelhead DPS. Primary constituent elements (PCEs) used to designate critical habitat (50 FR 52488 -52627) include: 1. Freshwater spawning sites with water quantity and quality conditions and substrate supporting spawning, incubation, and larval development. 2. Freshwater rearing sites with water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility; water quality and forage supporting juvenile development; and natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks. 3. Freshwater migration corridors free of obstruction with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival. 4. Estuarine areas free of obstruction with water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation. 5. Nearshore marine areas free of obstruction with water quality and

### 3.0 Affected Environmental and Environmental Consequences

quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels. 6. Offshore marine areas with water quality conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation.

Although there are no CNDDDB records documented for this species within five miles of the project site (CDFG, 2003) a study conducted by the California Department of Water Resources (DWR, 2002) reports that DFG fisheries biologist Titus observed juvenile steelhead trout in Miners Ravine at Dick Cook Road in 2001 providing evidence of spawning in the upper reaches of Miners Ravine. While there are numerous barriers to migration downstream of the SMD 3 WWTP noted in the DWR report the document does indicate that steelhead do have the potential to access the upper reaches of Miners Ravine during peak winter stream flows. As such, Miners Ravine provides suitable habitat for this species. This species was not observed during the biological surveys of the study area. This species has the potential to occur within or in the vicinity of the study area. Results of a hydrologic study prepared for the project detail the potential for impacts to this species (**Appendix I**).

#### **Amphibians**

##### **California Red-Legged Frog (*Rana aurora draytonii*; CRLF)**

Federal Status – Threatened

State Status – California Species of Concern

The California red-legged frog (CRLF) requires aquatic breeding areas embedded within a matrix of riparian and upland dispersal habitats. Breeding aquatic habitats include pools and backwaters within streams, creeks, ponds, marshes, springs, sag ponds, dune ponds, and lagoons. CRLF also breed in artificial impoundments including stock ponds. The breeding period is from November to March. Beginning with the first rains of fall, CRLF may make overland excursions through upland habitats. Most of these overland movements occur at night. CRLF may move distances up to 1.6 kilometers throughout one wet season. CRLF rest and forage in riparian vegetation (USFWS, 2002). CRLF disperse from their breeding habitat to forage and seek summer habitat if water is not available. Summer habitats include spaces under boulders or rocks and organic debris, such as downed trees or logs; industrial debris; and agricultural features, such as drains, watering troughs, abandoned sheds, or hay-ricks (USFWS, 2002b). CRLF requires 11 to 30 weeks of permanent water for larval development (CDFG, 2003).

On May 28, 2002, the USFWS published a recovery plan for the CRLF throughout California. The objective of the recovery plan is to reduce any threats to the species and to improve the status of the CRLF populations sufficiently to warrant delisting. In this recovery plan, 35 Core Areas have been designated within eight recovery unit boundaries for CRLF (USFWS, 2002b). Recovery units are “regions of the species’ distribution that are distinct from one another based on ecological characteristics, status of the species, threats to the continued existence of the species, or recovery actions needed within the area.” Core Areas are “watersheds, or portions thereof, that have been determined to be essential to the recovery of the CRLF.” Core Areas have no legal mandate for protection under the FESA and solely rely upon voluntary implementation. The study area occurs within the Sierra Nevada Foothills and Central Valley Recovery Unit Boundary for CRLF (USFWS, 2002b). The study area does not occur within any of the Core Areas of the Recovery Unit Boundary. The USFWS revised the critical habitat designated for

### 3.0 Affected Environmental and Environmental Consequences

CRLF on March 17, 2010 (USFWS, 2010). Although the USFWS list of species within Placer County identifies critical habitat as occurring within Placer County, critical habitat is not documented on the USFWS list of species on the Folsom and Rocklin quads. The project site does not occur within designated critical habitat for this species.

There is one CNDDDB record for CRLF within five miles of the project site. The record is from 2005 and is approximately 4.6 miles east of the study area (occurrence number: 814) on the opposite side of Folsom Lake within the Clarksville quad. The record states that one juvenile CRLF was observed in a habitat that consists of a watercourse vegetated by sedge and Himalayan blackberry that drains into Folsom Lake (CDFG, 2003).

The ponds and perennial streams within the study area provide potential habitat for CRLF. No CNDDDB occurrences have been recorded on the Folsom or the Rocklin quads. The 2005 record (occurrence number: 814) appears to have been misidentified since no other occurrences have been documented prior to or since the occurrence was recorded in 2005. The study area occurs outside of the current known geographic range for this species as it does not occur within any of the Core Areas of the Sierra Nevada Foothills and Central Valley Recovery Unit Boundary or within designated critical habitat for CRLF. Further, this isolated occurrence was documented across from Folsom Lake. This species was not observed in the study area. This species does not occur in the study area and therefore is not discussed further within this EA/EIR.

#### Reptiles

##### **Western Pond Turtle (*Actinemys marmorata*; WPT)**

Federal Status – None

State Status – Species of Concern

Western pond turtles (WPT) are found along ponds, marshes, rivers, streams, and irrigation ditches with abundant aquatic vegetation. WPT requires aquatic habitats with suitable basking sites. Nest sites are most often characterized as having gentle slopes less than 15 percent with little vegetation or sandy banks. WPT are found from zero to 1,430 meters above sea level (Stebbins, 2003). WPT prefers pools with rocky or muddy bottoms in woodland, forest, or grassland areas. During summer droughts, WPT aestivate in burrows in soft bottom mud (CaliforniaHerps, 2012). The period of identification for WPT is March through October. WPT are known throughout California west of the Sierra-Cascade crest, and are absent from desert regions except along the Mohave River and its tributaries (Stebbins, 2003).

There are two CNDDDB records for WPT within five miles of the project site. The nearest record is from 1997 and is approximately 1.2 miles south of the project site (occurrence number: 496) on the Folsom quad. The record states that two adults were observed in habitat comprised of freshwater marsh surrounding an abandoned water district reservoir (CDFG, 2003).

The ponds and perennial drainages within the study area provide potential habitat for WPT. This species was not observed in the study area. This species has the potential to occur in the study area.

#### Mammals

##### **Pallid Bat (*Antrozous pallidus*)**

Federal Status – None

State Status – Species of Concern

Pallid bats are found in grassland, shrubland, and woodland habitats from sea level up to mixed conifer forests through 2,000 meters. These species commonly occur in open, dry habitats with rocky areas for roosting. Other roosts include cliffs, abandoned buildings, bird boxes, and under bridges (Harris, 2000). This species forages over open ground during the dawn and dusk hours. Pallid bats establish daytime roosts in caves, crevices, mines, large hollow trees, and unoccupied buildings. Pallid bats mate from October through February and most young are born from April through July (Harris, 2000). They occur in arid and semi-arid regions across much of the American west, up and down the coast from Canada to Mexico (Arizona-Sonora Desert Museum, 2006-2009).

There is one CNDDDB record for pallid bat within five miles of the study area. The record is from 1941 and is approximately two miles southwest of the study area (occurrence number: 233) on the Folsom quad. The record states that one female specimen was collected (CDFG, 2003).

The trees within the oak woodland and two bridges that cross Miners Ravine on Auburn-Folsom Boulevard provide roosting habitat for pallid bat. Buildings within the WWTP site are well maintained and, thus, would not provide suitable roost locations. This species was not observed in the study area. This species has the potential to occur in the study area.

#### Birds

##### **Tricolored Blackbird (*Agelaius tricolor*)**

Federal Status – None

State Status – Species of Concern

Tricolored blackbirds usually nest in large flocks, with greater than 50 breeding pairs, in dense vegetation near water or by emergent wetlands. Nesting sites are typically associated with cattails, tules (*Scirpus* spp.), willows, blackberry, and wild rose. Nests can be built a few centimeters above the ground or water level to two meters high. Nesting season occurs from April to July, though it may extend later into the year. Within the Sacramento Valley, breeding has been observed as late as October and November. During the non-breeding season, they can be found foraging in open habitats such as croplands and grassy fields (ICE, 2012). This species is largely found in the Central Valley, extending into the south coast range from Monterey County south. Populations are also documented from the Peninsular Range near San Diego County and extreme northern California.

There is one CNDDDB record for tricolored blackbird within five miles of the study area. The record is from 1997 and is approximately 2.2 miles southwest of the project site (occurrence number: 330) on the Folsom quad. The record states that approximately 250 adults were flying eastward, presumably to a foraging area, in the vicinity of a nesting area comprised of cattails in freshwater marsh habitat (CDFG, 2003).

### 3.0 Affected Environmental and Environmental Consequences

The riparian vegetation surrounding the ponds and the perennial streams provide breeding habitat for tricolored blackbird. The nonnative annual grassland provides foraging habitat for this species. This species was not observed in the study area. This species has the potential to occur in the study area.

#### **White-Tailed Kite (*Elanus leucurus*)**

Federal Status – None

State Status – Fully Protected

White-tailed kites are year-round residents in coastal and valley lowlands. White-tailed kites forage in open grasslands, meadows, agricultural fields, and emergent wetlands. Nesting occurs in dense stands of oak, willow, and other deciduous trees from February through October (CDFG, 2003).

There is one CNDDDB record for white-tailed kite within five miles of the study area. The record is from 1992 and is approximately 3.7 miles southwest of the study area (occurrence number: 31) on the Folsom quad. The record states that two adults and two young were observed within a nest along a creekside within oak/riparian woodland (CDFG, 2003).

The trees within the oak woodland and riparian vegetation within the study area provide nesting habitat for this species. The nonnative annual grassland and seasonal wetland provide foraging habitat for this species. This species has the potential to nest and forage within the study area.

#### **Purple Martin (*Progne subis*)**

Federal Status – None

State Status – Species of Concern

Purple martins are found in a variety of wooded, low-elevations habitats from 100 to 4,000 meters. They utilize valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, riparian, and coniferous habitats, including closed-cone pine-cypress, ponderosa pine (*Pinus ponderosa*), Douglas-fir (*Pseudotsuga menziesii*), and redwood. Purple martins inhabit more open areas in winter (NatureServe, 2011). The purple martin is a cavity-nester, and is generally restricted to areas with dead trees containing woodpecker holes. They are also known to nest in manmade structures such as nest boxes and highway and railway overpass structures. Breeding season extends from April to August (Cornell Lab of Ornithology, 2012).

There is one CNDDDB record for purple martin within five miles of the study area. The record is from 2007 and is approximately 4.5 miles west of the study area (occurrence number: 27) on the Roseville quad. The record states that two adults were observed nesting in an overpass drainage hole along the freeway in the vicinity of nonnative grassland and oak woodland (CDFG, 2003).

The trees within the oak woodland and the riparian areas within and in the vicinity of the study area provide nesting habitat for purple martin. No purple martins were observed nesting during the biological surveys of the study area. Purple martin has the potential to occur within the study area.

### 3.3.3 ENVIRONMENTAL CONSEQUENCES

#### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to biological resources have been developed based on Appendix G of the CEQA *Guidelines* and relevant agency thresholds. Impacts to biological resources would be considered significant if the Proposed Project would:

- 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 CDFG, or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on waters of the US as defined by Section 404 of the Clean Water Act (including, but not limited to, wetlands, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; or
- Have the potential to degrade the quality of the environment, substantially reduce the habitat of 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 a rare or endangered plant or animal.

#### Project Specific Impacts

##### ***Federal Listed Special Status Species, Critical Habitat and Fisheries***

##### **Impact**

- 3.3-1 Construction and operation of the Proposed Project could result in direct effects to Valley Elderberry Long-horn Beetle, a Federally protected species.**

##### ***No Project / No Action Alternative***

Under the No-Action Alternative, no construction-related impacts to VELB would occur because the project would not be constructed. The Proposed Project would not be constructed and therefore, existing conditions would remain the same. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Construction activities associated with Alternative A would not result in the removal or pruning of any of the five elderberry shrubs mapped within the study area. The elderberry shrub identified near the WWTP (ELD 1a) occurs approximately 30 feet to the north of the northeastern fence

### 3.0 Affected Environmental and Environmental Consequences

boundary surrounding the site. Because construction activities would occur inside the fence surrounding the WWTP site, there is a low potential for impacts to ELD 1a. The dripline of one elderberry shrub (ELD 7) occurs within 20 feet of the proposed force main route. Trenching activities associated with the installation of the proposed pipeline route within a 20-foot buffer of the dripline of ELD 7 have the potential to adversely affect VELB habitat by vibration or dust falling on the shrubs. Grading and soil compaction following the placement of the proposed pipeline within a 20-foot buffer of the dripline of ELD 7 also have the potential to adversely affect VELB habitat. The other three elderberry shrubs (ELDs 3, 8, and 12) situated outside of 20 feet but within 30 feet of construction activities could be inadvertently damaged or removed through relocation of the equipment. Therefore, a potentially significant effect may occur associated with construction activities in the vicinity of the four elderberry shrubs along the proposed force main route (ELDs 3, 7, 8, and 12) and the one elderberry shrub in the vicinity of the WWTP site (ELD 1a). With implementation of **Mitigation Measure 3.3-1a and 3.3-1b**, which include installation of construction fencing, environmental awareness training, watering to keep dust down, and presence of a biological monitor during all construction activities occurring within 20 feet of any elderberry shrub, potential effects would be reduced to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### ***Alternative B Road Right of Way Alignment***

Under Alternative B, impacts to VELB habitat would be similar to those identified under Alternative A. With the implementation of **Mitigation Measure 3.3-1a and 3.3-1b**, which include installation of construction fencing, environmental awareness training, and presence of a biological monitor during all construction activities occurring within 20 feet of any elderberry shrub, potential impacts would be reduced to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Under Alternative C, impacts to VELB habitat would be similar to those identified under Alternatives A and B. With implementation of **Mitigation Measure 3.3-1a and 3.3-1b**, which include installation of construction fencing, environmental awareness training, and presence of a biological monitor during all construction activities occurring within 20 feet of any elderberry shrub, potential impacts would be reduced to a less-than-significant level. **Less-Than-Significant with Mitigation.**

### **Mitigation Measures/BMPs**

#### ***Alternative A, Alternative B and Alternative C***

**Mitigation Measure 3.3-1a: Conduct Construction Crew Training and Implement Avoidance Measures for Activities within 30-feet of VELB Habitat.** In accordance with Section 7 of the FESA, the USACE shall consult with the USFWS to develop appropriate protective, minimization, and mitigation measures to avoid impacts to VELB. At a minimum, the following measures shall be implemented:

### 3.0 Affected Environmental and Environmental Consequences

- 1) High visibility construction fencing shall be placed around the four elderberry shrubs along the proposed force main route (ELDs 3, 7, 8, and 12) and the one elderberry shrub within the WWTP site (ELD 1a). In addition, high visibility construction fencing shall be placed at the edge of the construction footprint in all areas along the proposed pipeline route located within 30 feet of the four elderberry shrubs (ELDs 3, 7, 8, and 12). The fencing shall extend in an approximately 30-foot radius centered on each elderberry shrub, as allowed by the road, to denote the limit of disturbance and beginning of the avoidance areas along the proposed pipeline route. Avoidance areas are defined as all areas within the 30-foot fenced buffer surrounding the elderberry bushes. A biologist shall be present during the installation of the construction fencing around all five elderberry shrubs. The construction fencing will not be removed until construction activities in the vicinity of the avoidance areas have been completed.
- 2) Two signs will be erected approximately 20 feet apart along the high visibility construction fencing within each of the five 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 FESA, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.
- 3) A qualified biologist approved by the USFWS will conduct an environmental awareness training to instruct all construction personnel crews about the status of the VELB and the need to protect its elderberry host plant. The training will include identification of special status species, required practices before the start of construction, general measures that are being implemented to conserve these species as they relate to the Proposed Project, penalties for noncompliance, and boundaries of the study area and of the permitted disturbance zones. Supporting materials containing training information will be prepared and distributed. Upon completion of training, all construction personnel will sign a form stating that they have attended the training and understand all the conservation measures. Training will be conducted in languages other than English, as appropriate. Proof of this instruction will be kept on file with the contractor. The County will provide the USFWS with a copy of the training materials and copies of the signed forms by project staff indicating that training has been completed within 30 days of the completion of the first training session. The biologist will request that a representative volunteer train and provide training materials to any new crew members that were not present at the first environmental awareness training. Copies of signed forms will be submitted monthly as additional training occurs for new employees.
- 4) Staging areas will be located at least 30 feet from the five elderberry shrubs. Temporary stockpiling of excavated or imported material will occur only in

### 3.0 Affected Environmental and Environmental Consequences

approved construction staging areas. Excess excavated soil will be used onsite or disposed of at a regional landfill or other appropriate facility.

- 5) Standard precautions will be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials.
- 6) A litter control program will be instituted. The contractor will provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage will be removed daily.
- 7) Roadways and areas disturbed by project activities within the 60-foot buffer to the north and south of the five elderberry shrubs within the study area will be watered at least twice a day to minimize dust emissions.

#### **Mitigation Measure 3.3-1b: Implement Biological Monitoring and Avoidance**

**Measures for Activities within 20 feet of VELB Habitat.** The following mitigation measures will be implemented to minimize adverse effects to VELB habitat within 20 feet of the proposed pipeline route:

- 1) A biologist will monitor all construction activities occurring within 20 feet of ELD 7 to ensure that it is not harmed.
- 2) The contractor will ensure that dust control measures (e.g., watering) are implemented in the vicinity of ELD 7. To further minimize adverse effects associated with dust accumulation, ELD 7 will be covered by a protective cloth (i.e., burlap or weed mat) during all ground-disturbing activities occurring within 20 feet of ELD 7. The cloth will be removed daily and immediately after ground-disturbing activities are completed. The cloth will extend from the ground upwards a minimum of six feet along the elderberry shrub.
- 3) No insecticides, herbicides, fertilizers, or other chemicals that might harm VELB or the elderberry shrub will be used within the study area.
- 4) The County will provide a written description of how the construction areas are to be restored, protected, and maintained after construction is completed.
- 5) Equipment operators will refrain from working within the dripline of ELD 7 to the maximum extent practicable.
- 6) Staging areas shall be located at least 100 feet from ponds, perennial streams, and riparian vegetation surrounding the ponds and perennial streams.
- 7) Any disturbed areas will be re-vegetated with native plants and restored to pre-project conditions in the Fall following construction. The installation of the proposed pipeline route will not result in damage to ELD 7.

## Impact

- 3.3-2 Construction and operation of the Proposed Project could result in direct effects to Central Valley Steelhead, a Federally protected species, as well as fishery resources (including those protected under the Magnuson-Stevens Fishery Conservation and Management Act (MSA)).**

***No Project / No Action Alternative***

Under the No-Action Alternative, there would be no modification to fish habitat, including critical habitat for Central Valley steelhead, since treated effluent would continue to be discharged into Miners Ravine. Existing conditions would remain the same. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment******Direct Construction Effects***

Construction activities under Alternative A have the potential to impact fishery resources, including the Central Valley steelhead Distinct Population Segment (DPS), from ground disturbing activities associated with trenching and excavation operations adjacent to Miners Ravine. These activities have the potential to cause discharges of sediment and other non-visible construction related pollutants into Miners Ravine through surface drainage pathways tributary to Miners Ravine. In accordance with **Mitigation Measure 3.7-1a in Section 3.7**, Hydrology and Water Quality, the Project will comply with the State's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) issued by the Regional Water Quality Control Board (RWQCB). This will include preparation of a Storm Water Pollution Prevention Plan to ensure that Best Management Practices (BMPs) are implemented and illicit discharges of sediment or other non-visible pollutants to Miners Ravine and tributaries are eliminated. With the implementation of the project SWPPP and BMPs as required by **Mitigation Measure 3.7-1a**, potential impacts to fish habitat and Central Valley steelhead from construction activities would be reduced to a less-than-significant level. **Less-Than-Significant with Mitigation.**

***Direct Operation Effects***

The Proposed Project would directly result in elimination of discharge of treated effluent from the SMD 3 WWTP site into to Miners Ravine and would increase the amount of treated effluent discharged by the Dry Creek WWTP to Dry Creek (approximately 16.5 stream miles downstream of the SMD 3 WWTP), which could potentially impact fisheries resources, modify critical habitat for Central Valley steelhead, and EFH for Chinook salmon. The direct effects from the decommissioning of the WWTP were analyzed in a hydrologic study (AES, 2012) (**Appendix I**). This study indicates that the reduction of supplemental effluent flows in Miners Ravine would not significantly affect stream stage or habitat suitability for fisheries resources downstream of the SMD 3 WWTP. In addition, the supplemental effluent that would be treated and discharged from the Dry Creek WWTP would be of a higher quality and would have no effect to the stage of Dry Creek (e.g. there is no possibility of reducing habitat availability nor stream stage required for upstream migration, spawning, or rearing of salmonids and other native fishes of the Dry Creek watershed) as this discharge is simply being removed from a point higher in the watershed and

### 3.0 Affected Environmental and Environmental Consequences

reintroduced 16.5 miles downstream at a higher quality. Furthermore, the Dry Creek WWTP is located at a point in the watershed where the magnitude of stream flows is much greater than at the SMD 3 WWTP, thus the dilution of treated effluent would have a net positive effect to the ambient water quality of Miners Ravine and Dry Creek between the SMD 3 WWTP and Dry Creek WWTP.

#### Miners Ravine

Decommissioning the SMD 3 WWTP would eliminate the human-induced discharge of treated tertiary effluent to Miners Ravine, which could potentially affect designated critical habitat for the California Central Valley steelhead DPS and/or EFH for Chinook salmon by reducing instream flows. A hydrologic study was conducted to evaluate the potential impacts related to the termination of the effluent discharge, which would result in flows downstream of the SMD 3 WWTP becoming more natural than existing conditions. The results from the Hydrologic Study are presented in **Appendix I** and indicate that the change to the stage of Miners Ravine from the decommissioning of the WWTP would not adversely affect steelhead trout passage, spawning, or rearing conditions based on their documented life history requirements. In addition the removal of the effluent discharge would increase water quality in Miners Ravine.

#### Dry Creek

The Proposed Project would result in the transfer of wastewater from the SMD 3 service area to the City of Roseville Dry Creek WWTP for treatment and discharge to Dry Creek. Eliminating the discharge from the SMD 3 WWTP to Miners Ravine and transferring the treatment and discharge to the Dry Creek WWTP would have a positive effect to fisheries resources and water quality (see detailed discussion of water quality impacts in **Section 3.7**, Hydrology and Water Quality). The increased discharge at the Dry Creek WWTP as a result of the Proposed Project will be off-set by the elimination of discharge from SMD 3 WWTP to Miners Ravine, which is tributary to Dry Creek and thus part of the upper Dry Creek watershed. Therefore, there will be no net increase in flow volumes within Dry Creek as the Proposed Project would effectively reintroduce the discharge lower into the same watershed where year round flows are higher and the dilution of effluent is greater.

The wastewater treatment system at the Dry Creek WWTP consists of mechanically cleaned bar screens, grit chambers, primary clarification, secondary treatment consisting of nitrification and denitrification, aeration, and secondary clarification. Tertiary treatment is provided by chemical coagulation with organic polymers, followed by filtration, chlorination, dechlorination with sulfur dioxide, pH adjustment, and cascade aeration. Wastewater transferred to the Dry Creek WWTP as a result of the Proposed Project would be treated and discharged to Dry Creek in accordance with the City of Roseville's existing NPDES discharge permit issued by the CVRWQCB.

Moving the point of discharge of treated effluent from the SMD 3 service area to Dry Creek, where a higher mean annual discharge volume occurs, would functionally decrease the concentrations of constituents of concern regulated by the CVRWQCB, therefore increasing the overall water quality of the Dry Creek watershed as well as at the current discharge point in

### 3.0 Affected Environmental and Environmental Consequences

Miners Ravine. As such, impacts to the overall water quality and fishery habitat quality in Dry Creek and the lower watershed downstream of the SMD 3 WWTP as a result of implementation of the Proposed Project are considered beneficial.

#### Summary

Moving the point of discharge to the Dry Creek WWTP will not adversely affect fishery resources and salmonid habitat in Miners Ravine or the greater Dry Creek watershed. **Less than Significant.**

#### **Alternative B Road Right of Way Alignment**

##### *Direct Construction Effects*

Construction activities under Alternative B will be similar to those of Alternative A, and may have the potential to impact fishery resources, including the Central Valley steelhead DPS, from ground disturbing activities associated with trenching and excavation operations adjacent to Miners Ravine. These activities have the potential to cause discharges of sediment and other non-visible construction related pollutants into Miners Ravine either directly or otherwise through surface drainage pathways tributary to Miners Ravine. As required by **Mitigation Measure 3.7-1a** in **Section 3.7**, Hydrology and Water Quality, the project will obtain coverage under RWQCB's NPDES program and will prepare a SWPPP pursuant to the Construction General Permit to ensure that BMPs are implemented and illicit discharges of sediment or other non-visible pollutants are eliminated.

Unlike Alternative A, the proposed force main under Alternative B will cross Miners Ravine at two locations along Auburn Folsom Road near the intersections of Twin Rocks Road and Willow Lane. Construction methods used to cross Miners Ravine would include jack and bore tunneling or directional drilling to install the force main under the streambed, avoiding impacts to the bed, bank and channel. Although these construction methods are proposed to avoid impacts to Miners Ravine, during drilling operations, there is always the potential, however remote, that drilling fluid may escape into the environment as a result of tunnel collapse or the rupture of mud to the surface, known as a "frac-out". A frac-out is caused when excessive drilling pressure results in drilling mud propagating toward the surface. The risk of a frac-out during construction activities would be minimized through geotechnical assessment practices. As required by **Mitigation Measure 3.7-1b** in **Section 3.7**, Hydrology and Water Quality, a Spill Prevention and Frac-out Contingency Plan will be prepared to ensure that measures are in place to monitor, identify and prevent and, if necessary, contain and remediate any acute effects caused from directional drilling under the creek.

With the implementation of the Spill Prevention and Frac-out Contingency Plan (**Mitigation Measure 3.7-1b**), SWPPP (**Mitigation Measure 3.7-1a**), and project BMPs, potential impacts to fish habitat and Central Valley steelhead from construction activities would be reduced to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### *Direct Operation Effects*

Under Alternative B, impacts to fishery resources and critical habitat for the Central Valley steelhead wildlife would be identical to those identified under Alternative A. **Less than Significant.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

##### *Direct Construction Effects*

Construction activities under Alternative C will be similar to those of Alternative B, and may have the potential to impact fishery resources, including the Central Valley steelhead DPS, from ground disturbing activities associated with trenching and excavation operations adjacent to Miners Ravine. These activities have the potential to cause discharges of sediment and other non-visible construction related pollutants into Miners Ravine either directly or otherwise through surface drainage pathways tributary to Miners Ravine. As required by **Mitigation Measure 3.7-1a** in **Section 3.7**, Hydrology and Water Quality, the project will obtain coverage under RWQCB's NPDES program and will prepare a SWPPP pursuant to the Construction General Permit to ensure that BMPs are implemented and illicit discharges of sediment or other non-visible pollutants are eliminated.

Alternative C also has the potential to cause direct impacts to fish habitat and Central Valley steelhead from frac-outs caused by directional drilling under Miners Ravine. As required by **Mitigation Measure 3.7-1b** in **Section 3.7**, Hydrology and Water Quality, a Spill Prevention and Frac-out Contingency Plan will be prepared to ensure that measures are in place to monitor, identify and prevent and, if necessary, contain, and remediate any acute effects caused from directional drilling under the creek.

With the implementation of the Spill Prevention and Frac-out Contingency Plan (**Mitigation Measure 3.7-1b**), SWPPP (**Mitigation Measure 3.7-1a**), and project BMPs, potential impacts to fish habitat and Central Valley steelhead from construction activities would be reduced to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### *Direct Operation Effects*

Under Alternative C, impacts to fishery resources and critical habitat for the Central Valley steelhead wildlife would be identical to those identified under Alternative A. **Less than Significant.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A, Alternative B, and Alternative C***

**Mitigation Measures 3.3-2: Implement Mitigation Measure 3.7-1a, Obtain Coverage Under the SWRCB NPDES General Permit and Implement Water Quality BMPs to Prevent Sedimentation and Erosion, and Mitigation Measure 3.7-1b, Prepare and Implement a Spill Prevention and Frac-out Contingency Plan.**

***State Listed Special-Status Species and Species of Concern***

**Impact**

**3.3-3 Construction activities could result in direct effects to state listed species and species of concern.**

***No Project / No Action Alternative***

Under the No-Action Alternative, no construction-related impacts to special status species or their critical habitat would occur because the project would not be constructed. The Proposed Project would not be constructed and therefore, the existing conditions would remain the same. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Implementation of the Proposed Project would result in decommissioning of the SMD 3 WWTP and the construction of a pump station and force main to convey wastewater to the SMD 2 collection system. Proposed facilities that would developed under Alternative A would be located within the existing boundaries of the previously disturbed WWTP site or buried within County ROWs or utility easements; thus, no permanent conversion of habitat would occur as a result of the Proposed Project. However, construction requires grading and trenching activities that could result in potential impacts to special status plants and wildlife. The following discussion identifies and evaluates potential impacts to state listed special status species based on construction activities associated with the Proposed Project. Impacts to habitat types are discussed in detail under Impact 3.3-4 and tree removal is discussed under Impact 3.3-5. Figures illustrating habitat types that would be impacted by Alternative A based on the project design are provided in **Appendix H.**

***Western Pond Turtle***

Western pond turtle (WPT) has the potential to occur in the vicinity of the study area. Under Alternative A, the force main would not cross Miners Ravine or impact any ponds located in the vicinity of the alignment, thus aquatic habitat for WPT would not be impacted. Construction activities within the riparian vegetation in the vicinity of the ponds and Miners Ravine could impact upland foraging and refuge habitat for WPT. Implementation of **Mitigation Measure 3.3-3a**, which includes preconstruction surveys, environmental awareness training, and presence of a biological monitor during construction activities associated with upland and breeding habitat for WPT would reduce potential impacts to this species to less than significant. **Less-Than-Significant with Mitigation.**

***Pallid Bat***

Pallid bat has the potential to roost beneath the bridges and within trees in the oak woodland and riparian habitats. Alternative A would not cross Miners Ravine, thus the bridges along Auburn Folsom Road that provide roosting habitat would not be impacted. Potential roosting habitat is present within the oak woodland and riparian habitat that occurs along the proposed Alternative A

### 3.0 Affected Environmental and Environmental Consequences

force main. Under Alternative A, no trees would be removed along the portion of the alignment that extends along the ROW of Auburn Folsom Road and Joe Rodgers Road; however, the segment of the alignment that extends through the open space area may require the removal of approximately 30 trees to accommodate access for construction equipment. If active roosts are present within any trees removed within the oak woodland or the nearby riparian vegetation along this segment of the alignment, pallid bat may be impacted. Implementation of **Mitigation Measure 3.3-3b**, which includes preconstruction surveys and establishment of exclusionary fencing if active roosts are present within trees slated for removal, would reduce potential impacts to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### *Birds Protected under the Migratory Bird Treaty Act and California Fish and Game Code*

Construction activities in the vicinity of active nests and any trees anticipated for removal within the oak woodland and riparian vegetation could impact nesting habitat for migratory birds and other birds of prey protected under the MBTA and California Fish and Game Code sections 3503, 3503.5, 3513, and 3511. A detailed discussion of habitat impacts and tree removal resulting from Alternative A is provided under Impact 3.3-4 and 3.3-5, respectively. As stated therein, approximately 30 trees may be removed during construction activities that extend through the Hidden Valley open space area. State-listed species protected under the Migratory Bird Treaty Act (MBTA) that have the potential to nest in the project area include, but are not limited to, white-tailed kite, tricolored blackbird and purple martin. Additionally, non-listed raptor and other bird species with the potential to nest within the project area include red-tailed hawk, Cooper's hawk (*Accipiter cooperii*), red-shouldered hawk (*Buteo lineatus*), black phoebe (*Sayornis nigricans*), killdeer (*Charadrius vociferous*), American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), and mourning dove (*Zenaida macroura*). Removal of trees during the nesting season could result in take of birds if active nests are present on any of the trees anticipated for removal. In addition, potential disruption of nesting migratory birds and other birds of prey during construction could result in nest abandonment or mortality should construction occur between March 1 and September 15. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact birds if their nests are located within the vicinity of construction areas. Implementation of **Mitigation Measure 3.3-3c**, which includes preconstruction surveys and establishment of buffer zones around active nests, would reduce potential impacts to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### **Alternative B Road Right of Way Alignment**

Construction activities under Alternative B would be similar to Alternative A, with the exception that the force main would be constructed entirely within the right-of-way of Auburn Folsom Road and Joe Rodgers Road. This alternative would not include any construction activities within the open space area north of Willow Lane, but would require two crossings of Miners Ravine. The following discussion identifies and evaluates potential impacts to state listed special status species based on construction activities associated with Alternative B. Impacts to habitat types are discussed in detail under Impact 3.3-4 below. Figures illustrating habitat types that would be impacted by Alternative B based on the project design are provided in **Appendix H**.

### 3.0 Affected Environmental and Environmental Consequences

#### *Western Pond Turtle*

Under Alternative B, the force main would cross Miners Ravine and its associated riparian corridor through directional drilling. Construction equipment used to drill the entry pit would be located outside of riparian vegetation to reduce the potential for impacts to WPT. Construction activities within the riparian vegetation in the vicinity of Miners Ravine and various tributaries that cross Auburn Folsom Road could impact upland foraging and refuge habitat for WPT. Implementation of **Mitigation Measure 3.3-3a**, which include preconstruction surveys, environmental awareness training, and presence of a biological monitor during construction activities associated with upland and breeding habitat for WPT would reduce potential impacts to this species to less than significant. **Less-Than-Significant with Mitigation.**

#### *Pallid Bat*

Pallid bat has the potential to roost beneath the bridges that cross Miners Ravine and within trees in riparian habitats along the force main alignment. Under Alternative B, no trees would be removed within oak woodland or riparian habitats because construction activities would not occur within the Hidden Valley open space area. However, construction would require two crossings of Miners Ravine and thus has the potential to disrupt roosting habitat beneath the two bridges that occur within the study area. If active roosts are present beneath the bridges, pallid bat may be impacted. Implementation of **Mitigation Measure 3.3-3b**, which includes preconstruction surveys and establishment of exclusionary fencing beneath bridges if active roosts are present, would reduce potential impacts to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### *Birds Protected under the MBTA and California Fish and Game Code*

Construction activities in the vicinity of active nests could impact nesting habitat for birds protected under the MBTA and California Fish and Game Code sections 3503, 3503.5, 3513, and 3511, including tricolored blackbird, white-tailed kite, and purple martin. While Alternative B would not require the removal of trees within oak woodland habitat and riparian habitat, potential disruption of nesting migratory birds and other birds of prey during construction could result in nest abandonment or mortality should construction occur between March 1 and September 15. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact birds if their nests are located within the vicinity of construction areas. Implementation of **Mitigation Measure 3.3-3c**, which includes preconstruction surveys and establishment of buffer zones around active nests, would reduce potential impacts to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative A, with the exception that the force main would be constructed entirely within the right-of-way of Auburn Folsom Road and Joe Rodgers Road. This alternative would include upgrading an approximately 900-foot segment of the existing SMD 2 sewer along Miners Ravine in the vicinity of the dirt road along the open space area north of Willow Lane. Similar to Alternative B, this alternative would also require

two crossings of Miners Ravine. The following discussion identifies and evaluates potential impacts to state listed special status species based on construction activities associated with Alternative C. Impacts to habitat types are discussed in detail under Impact 3.3-4 below. Figures illustrating habitat types that would be impacted by Alternative C based on the project design are provided in **Appendix H**.

#### *Western Pond Turtle*

Under Alternative C, impacts to WPT habitat would be similar to those identified under Alternative B. Implementation of **Mitigation Measure 3.3-3a**, including preconstruction surveys, environmental awareness training, and presence of a biological monitor during construction activities associated with upland and breeding habitat for WPT would reduce potential impacts to this species to less than significant. As a precautionary measure, the mitigation identified for WTP shall also be implemented to ensure that impacts to CRLF are avoided. **Less-Than-Significant with Mitigation.**

#### *Pallid Bat*

Under Alternative C, impacts to pallid bat roosting habitat would be similar to those identified under Alternative A and B. Implementation of **Mitigation Measure 3.3-3b**, including preconstruction surveys and establishment of exclusionary fencing if active roosts are present, would reduce potential impacts to a less-than-significant level. **Less-Than-Significant with Mitigation.**

#### *Birds Protected under the MBTA and California Fish and Game Code*

Under Alternative C, impacts to nesting birds would be similar to those identified under Alternative B. Implementation of **Mitigation Measure 3.3-3c**, including preconstruction surveys and establishment of buffer zones around active nests, would reduce potential impacts to a less-than-significant level. **Less-Than-Significant with Mitigation.**

### **Mitigation Measures/BMPs**

#### ***Alternative A, Alternative B, and Alternative C***

##### *Western Pond Turtle*

**Mitigation Measure 3.3-3a: Conduct Construction Crew Training, Pre-Construction Survey and Biological Monitoring for Western Pond Turtle.** The following mitigation measures will be implemented to avoid or minimize impacts to WPT:

- 1) Prior to commencement of any groundbreaking activities, all construction personnel will receive training on WPT. The training will be presented in a similar manner as identified for VELB.
- 2) A qualified biologist shall conduct a preconstruction survey within 14 days prior to commencement of construction activities anticipated to occur within 100 feet from riparian vegetation surrounding ponds and streams. A report shall be submitted to the County to document the results of the preconstruction survey.

### 3.0 Affected Environmental and Environmental Consequences

- 3) Prior to commencement of daily construction activities within a 100-foot buffer of riparian vegetation surrounding the ponds and perennial streams, a qualified biologist will conduct a preconstruction survey for WPT. If WPT is present, the biologist will be allowed sufficient time to move the species from the work site before work activities begin.
- 4) A biological monitor shall be present during all construction activities within a 100-foot buffer of riparian vegetation surrounding the ponds and perennial streams.
- 5) Because WPT may take refuge in cavity-like and den-like structures such as pipes and may enter stored pipes and become trapped, all construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods will be either securely capped prior to storage or thoroughly inspected by the biological monitor for these animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way.

#### *Pallid Bat*

**Mitigation Measure 3.3-3b: Conduct Pre-construction Survey and Implement Avoidance Measures for Pallid Bat.** The following mitigation measures will be implemented to avoid or minimize impact to roosting Pallid bats:

- 1) If any trees are proposed for removal, a qualified wildlife biologist shall conduct a focused survey for roosting Pallid bats no more than 14 days prior to the anticipated date of tree removal. Trees that contain cavities will be thoroughly investigated for evidence of bat activity. A report shall be prepared and submitted to the County following the preconstruction survey to document the results. If the preconstruction survey determines that there is no evidence of roosts, then no additional mitigation will be required.
- 2) If special status bats are found roosting within any trees slated for removal, the areas shall be demarcated by exclusionary fencing and avoided until a qualified biologist can assure that the bats have vacated the roost.
- 3) The qualified biologist will conduct a focused survey for roosting Pallid bats no more than 14 days prior to the anticipated date of work in the vicinity of the bridges crossing Miners Ravine. Should active roosts be observed, the biologist shall determine when the bat has vacated the bridge to forage (either at dawn or at dusk) and exclusionary fencing shall be installed during the active period when the bat is not roosting beneath the bridge. This mitigation measure applies specifically to Alternatives B and C.

#### *Nesting Birds*

**Mitigation Measure 3.3-3c: Conduct Construction and Vegetation/Tree Removal Activities during the Non-Breeding Season for Migratory Birds and Raptors, and Survey and Avoid Nesting Sites during Construction.** The following mitigation

### 3.0 Affected Environmental and Environmental Consequences

measures will be implemented to avoid or minimize impacts to migratory birds and other birds of prey:

- 1) To avoid removing any active special-status species or other non-special status bird and raptor nests, construction and vegetation/tree removal activities will be conducted during the non-breeding season for these species (generally between September 1 and March 1).
- 2) If tree and shrub trimming and removal activities are conducted during breeding season (generally between March 1 and September 1), a qualified biologist shall conduct a preconstruction survey within 14 days prior to commencement of any construction activities to determine if active nests are present. A report shall be prepared and submitted to the County following the preconstruction survey to document the results. If surveys show that there is no evidence of nests, then no additional mitigation will be required provided construction commences within 14 days prior to the preconstruction survey.
- 3) If any active nests are located within the vicinity of the project site, a no-disturbance buffer zone shall be established around the nests to avoid disturbance or destruction of the nest. The distance around the no-disturbance buffer will be determined by the biologist in coordination with CDFG and will depend on the level of noise or construction activity, the level of ambient noise in the vicinity of the nest, and line-of-sight between the nest and disturbance. The biologist should delimit the buffer zone with construction tape or pin flags. The no-disturbance buffer will remain in place until after the nesting season (March 1 through September 1) or until the biologist determines that the young have fledged. A report shall be prepared and submitted to the County and CDFG following the fledging of the nestlings to document the results.

#### ***Vegetation and Wildlife***

##### **Impact**

- 3.3-4 The Proposed Project has the potential to impact vegetation, wildlife, riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS, including potentially jurisdictional waters of the U.S., as defined by Section 404 of the Clean Water Act.**

##### ***No Project / No Action Alternative***

Under the No-Action Alternative, no construction-related impacts to vegetation, wildlife, or sensitive habitat including riparian habitats would occur because the project would not be constructed. The project would not be constructed and therefore, the existing conditions would remain the same.

### 3.0 Affected Environmental and Environmental Consequences

#### **Alternative A Hidden Valley Force Main Alignment**

**Table 3.3-2** summarizes the habitat types that would be permanently and/or temporarily affected by construction activities associated with the Alternative A. Figures illustrating habitat types that would be impacted by Alternative A based on the project design are provided in **Appendix H**.

**TABLE 3.3-2**  
TEMPORARY AND PERMAMENT CONSTRUCTION HABITAT IMPACTS

Impacts	Habitat Type/ Biological Community	Acreage <sup>1</sup>		
		Within Alternative A Construction Impact Area	Within Alternative B Construction Impact Area	Within Alternative C Construction Impact Area
<b>Temporary</b>	Ruderal/Developed	14.370	16.92	16.670
	Annual Grassland	0.798	0.292	0.292
	Riparian	0.197	0.040	0.055
	Oak Woodland	2.580	0.685	0.999
	<b>Subtotal</b>	<b>17.945</b>	<b>17.937</b>	<b>18.016</b>
<b>Permanent</b>	Ruderal/Developed	4.160	4.160	4.160
	<b>Subtotal</b>	<b>4.160</b>	<b>4.160</b>	<b>4.160</b>
	<b>Total</b>	<b>22.107</b>	<b>22.097</b>	<b>22.176</b>

Notes: <sup>1</sup>GIS calculations may not reflect exact acreage of action area due to rounding.

The Proposed Project is likely to result in permanent and/or temporary impacts to habitats including ruderal/ developed areas, annual grassland, oak woodland, and riparian. Of these habitat types, oak woodland, and riparian habitats are generally considered sensitive as they provide cover and foraging opportunities for wildlife species. Sensitive natural communities are land cover types that are especially diverse, regionally uncommon, or of special concern to Federal, State, and/ or local agencies. The CDFG, Placer County General Plan, Granite Bay Community Plan, and Horseshoe Bar/Penryn Community Plan consider riparian habitat and/or perennial streams to be sensitive communities. Miners Ravine is a waters of the U.S. and a sensitive natural community. Other wetland features within the study area that are considered potential waters of the U.S are also considered sensitive natural communities because of their proximity to Miners Ravine. Alternative A would not require any crossings of Miners Ravine and has been designed to avoid the wetland located in the southeast corner of the WWTP site, and thus would avoid impacts to these aquatic features.

The Proposed Project would result in impacts to a total of 18.53 acres of ruderal/developed areas. Of that, approximately 4.160 acres of ruderal/developed areas located within the WWTP site would be permanently removed from the construction of a pump station within the WWTP site. The remaining 14.370 acres of ruderal/developed areas that would be temporarily impacted would be restored to their existing conditions following the installation of the force main along the proposed pipeline route. Impacts to ruderal/developed areas are not considered significant as this habitat type provides little habitat value for wildlife species.

The Proposed Project would result in temporary impacts to approximately 2.580 acres of oak woodland areas along the proposed pipeline route. All impacted oak woodland habitat would be

### 3.0 Affected Environmental and Environmental Consequences

restored to its existing condition following the installation of the proposed force main. Should any trees be impacted or removed, they would be mitigated for, as discussed in more detail under **Impact 3.3-5** and **Mitigation Measure 3.3-5**.

Several perennial streams that are tributary to Miners Ravine (and thus are potential waters of the U.S.) cross under Auburn Folsom Road. Impacts to perennial streams and drainage crossings would be avoided through construction techniques described in **Section 2.4.3**. Compliance with **Mitigation Measure 3.7-1a**, identified in the Hydrology and Water Quality **Section 3.7**, would prevent discharge of pollutants to surface waters during construction. This shall include complying with the State's NPDES General Construction Permit issued by the RWQCB. Therefore, Alternative A would have no impact to wetlands and waters of U.S. habitat types.

The Proposed Project would result in temporary impacts to approximately 0.798 acres of annual grassland, which occurs in several small patches adjacent to ruderal/developed areas along the proposed pipeline route. The annual grassland is comprised primarily of nonnative species. Temporary impacts to annual grassland would be restored back to their existing conditions following the installation of the force main along the proposed pipeline route.

Implementation of the Proposed Project requires grading and trenching activities that would result in removal or temporary disturbance of approximately 0.197 acres of riparian vegetation to the south of the WWTP site and along the segment of the force main that extends through the open space area. This is considered a potentially adverse impact. In compliance with the Placer County General Plan and the Granite Bay Community Plan, the County shall coordinate with the CDFG by obtaining a Section 1602 Streambed Alteration Agreement for impacts to riparian habitat, and all conditions and requirements of the permits shall be adhered to, as identified in **Mitigation Measure 3.3-4**. Additionally, the USACE will consult with the USFWS in accordance with the FWCA to determine appropriate mitigation to off-set impacts, including habitat restoration, replacement or enhancement plans. Final mitigation requirements and habitat restoration/replacement ratios will be identified as a condition of the Section 1602 Streambed Alteration Agreement obtained from the CDFG. At minimum, as a requirement of permits, the County would be required to replace lost habitat by restoring the riparian vegetation impacted during construction activities at a 2:1 ratio (meaning that two acres will be restored for every one acre impacted). Implementation of **Mitigation Measure 3.3-4**, including replacement of lost habitat through the restoration of riparian vegetation at a 2:1 ratio, and installation of construction fencing around riparian vegetation to be preserved, would reduce impacts to riparian habitat to less than significant.

In conclusion, the Proposed Project would have minimal permanent effects to vegetation and wildlife since the only permanent impacts that would occur are associated with ruderal/developed areas comprised of predominately weedy nonnative species or ornamental landscaping that have been previously modified and provide little habitat value for wildlife species. Any temporary effects to sensitive habitat types including riparian and oak woodland would be mitigated through

### 3.0 Affected Environmental and Environmental Consequences

habitat restoration, replacement or enhancement. This impact is considered less than significant with mitigation. **Less-Than-Significant with Mitigation.**

#### **Alternative B Road Right of Way Alignment**

**Table 3.3-2** summarizes the habitat types that would be permanently and/or temporarily affected by construction activities associated with the Alternative B.

Alternative B is likely to result in permanent and/or temporary impacts to habitats including ruderal/ developed areas, annual grassland, oak woodland, and riparian. Of these habitat types, oak woodland and riparian are generally considered sensitive, as discussed under Alternative A. Alternative B would involve two crossings of Miners Ravine. The crossings would be accomplished using directional drilling or jack and bore techniques to avoid impacts to the stream and riparian habitat to the maximum extent feasible. Compliance with **Mitigation Measure 3.7-1b**, identified in the Hydrology and Water Quality **Section 3.7**, would result in the implementation of a Spill Prevention and Frac-out Contingency Plan to ensure that measures are in place to monitor, identify, and prevent and, if necessary, contain, and remediate any acute effects caused from directional drilling under the creek. Miners Ravine is considered a sensitive natural community. Other wetland features within the study area that are considered potential waters of the U.S are also considered sensitive natural communities because of their proximity to Miners Ravine.

Several perennial streams that are tributary to Miners Ravine (and thus are potential waters of the U.S.) cross under Auburn Folsom Road. Impacts to perennial streams and drainage crossings would be avoided through construction techniques described in **Section 2.4.3**. Compliance with **Mitigation Measure 3.7-1a**, identified in the Hydrology and Water Quality **Section 3.7**, would prevent discharge of pollutants to surface waters during construction. This shall include complying with the State's NPDES General Construction Permit issued by the RWQCB. Therefore, Alternative B would have no impact to wetlands and waters of U.S. habitat types.

Alternative B would result in impacts to a total of 20.080 acres of ruderal/developed areas. Of that, approximately 4.160 acres of ruderal/developed areas located within the WWTP site would be permanently removed from the construction of a pump station within the WWTP site. The remaining 16.920 acres of ruderal/developed areas that would be temporarily impacted would be restored to their existing conditions following the installation of the force main along the proposed pipeline route. Impacts to ruderal/developed areas are not considered significant as this habitat type provides little habitat value for wildlife species.

Alternative B would result in temporary impacts to approximately 0.685 acres of oak woodland areas along the proposed pipeline route. All impacted oak woodland would be restored to its existing condition following the installation of the proposed force main. Should any trees be impacted or removed, they would be mitigated for, as discussed in more detail under **Impact 3.3-5** and **Mitigation Measure 3.3-5**.

### 3.0 Affected Environmental and Environmental Consequences

Alternative B would result in temporary impacts to approximately 0.292 acres of annual grassland, which occurs in several small patches adjacent to ruderal/developed areas along the proposed pipeline route. The annual grassland is comprised primarily of nonnative species. Temporary impacts to annual grassland would be restored back to their existing conditions following the installation of the force main along the proposed pipeline route.

Implementation of the Alternative B requires grading and trenching activities that would result in removal or temporary disturbance of approximately 0.04 acres of riparian vegetation to the south of the WWTP. This is considered a potentially adverse impact. In compliance with the Placer County General Plan and the Granite Bay Community Plan, the County shall coordinate with the CDFG by obtaining a Section 1602 Streambed Alteration Agreement for impacts to riparian habitat, and all conditions and requirements of the permits shall be adhered to, as identified in **Mitigation Measure 3.3-4**. Additionally, the USACE will consult with the USFWS in accordance with the FWCA to determine appropriate mitigation to off-set impacts, including habitat restoration, replacement or enhancement plans. Final mitigation requirements and habitat restoration/replacement ratios will be identified as a condition of the Section 1602 Streambed Alteration Agreement obtained from the CDFG. At minimum, as a requirement of permits, the County would be required to replace lost habitat by restoring the riparian vegetation impacted during construction activities at a 2:1 ratio (meaning that two acres will be restored for every one acre impacted). Implementation of **Mitigation Measure 3.3-4**, including replacement of lost habitat through the restoration of riparian vegetation at a 2:1 ratio, and installation of construction fencing around riparian vegetation to be preserved, would reduce impacts to riparian habitat to less than significant.

In conclusion, Alternative B would have minimal permanent effects to vegetation and wildlife since the only permanent impacts that would occur are associated with ruderal/developed areas comprised of predominately weedy nonnative species or ornamental landscaping that have been previously modified and provide little habitat value for wildlife species. Any temporary effects to sensitive habitat types including riparian and oak woodland would be mitigated through habitat restoration, replacement or enhancement. This impact is considered less than significant with mitigation. **Less-Than-Significant with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

**Table 3.3-2** summarizes the habitat types that would be permanently and/or temporarily affected by construction activities associated with the Alternative C. Alternative C is likely to result in permanent and/or temporary impacts to habitats including ruderal/ developed areas, annual grassland, oak woodland, and riparian. Of these habitat types, oak woodland and riparian habitats are generally considered sensitive, as described under Alternatives A and B.

Alternative C would result in impacts to a total of 20.830 acres of ruderal/developed areas. Of that, approximately 4.160 acres of ruderal/developed areas located within the WWTP site would be permanently removed from the construction of a pump station within the WWTP site. The remaining 18.016 acres of ruderal/developed areas that would be temporarily impacted would be

### 3.0 Affected Environmental and Environmental Consequences

restored to their existing conditions following the installation of the force main along the proposed pipeline route. Impacts to ruderal/developed areas are not considered significant as this habitat type provides little habitat value for wildlife species.

Under Alternative C, impacts to riparian habitat and oak woodland would be similar to those identified under Alternative B. Similar to Alternative B, Alternative C would have no impact to wetlands and waters of U.S. habitat types, and temporary impacts to the 0.055 acres riparian habitat would be mitigated through implementation of **Mitigation Measure 3.3-4**.

In conclusion, Alternative C would have minimal permanent effects to vegetation and wildlife since the only permanent impacts that would occur are associated with ruderal/developed areas. Any temporary effects to sensitive habitat types including riparian and oak woodland would be mitigated through habitat restoration, replacement or enhancement. This impact is considered less than significant with mitigation. **Less-Than-Significant with Mitigation**.

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.3-4a: Identify and Install Construction Fencing Around Sensitive Habitats.** Prior to construction, a qualified biologist shall conduct a preconstruction survey and identify all areas to be avoided including riparian habitat, protected trees, drainages, and other areas to the contractor. The contractor shall install high visibility construction fencing to identify the environmentally sensitive areas that are to be avoided.

**Mitigation Measure 3.3-4b: Obtain Streambed Alteration Agreement and Replace Impacted Riparian Habitat.** Prior to construction activities that would impact riparian habitat, the County shall apply for a Section 1602 Streambed Alteration Agreement from CDFG. The application shall identify any riparian vegetation anticipated to be temporarily disturbed or permanently removed while installing the proposed pipeline within the riparian corridor. As a condition of the permit, impacted riparian habitat shall be restored, replaced, or enhanced at a 2:1 ratio, at minimum, in the same habitat type in the vicinity of the location in which it was disturbed or removed. Riparian habitat restoration, replacement or enhancement plans shall be provided to CDFG and USFWS for review prior to construction. This plan shall establish the duration of monitoring to ensure plant survival, control of noxious weeds, and irrigation protocols, if required. The final ratio will be determined in the Section 1602 Streambed Alteration Agreement obtained by the CDFG.

**Impact**

**3.3-5 Construction activities have the potential to impact trees protected under the Placer County Tree Ordinance.**

***No Project / No Action Alternative***

Under the No-Action Alternative, no construction-related impacts to trees protected under the Placer County Tree Ordinance would occur because the project would not be constructed. The Proposed Project would not be constructed and therefore, the existing conditions would remain the same.

***Alternative A Hidden Valley Force Main Alignment***

The Placer County Tree Ordinance applies to any project with the potential to affect protected trees. The Placer County Tree Ordinance considers the removal of any native tree species with a diameter at breast height (DBH) of six inches or greater, or a combined multiple trunk DBH of at least ten inches, or trees from riparian areas, a significant impact. Construction activities associated with decommissioning of the WWTP and construction of the pump station would result in the removal of approximately 14 trees within the WWTP site with a DBH of 6 inches or greater. Trees slated for removal within the WWTP site include both non-native ornamental trees and native trees, including live oak. No trees would be removed as a result installation of the force main within the ROW of Auburn Folsom Road and Joe Rodgers Road. However, during construction of the segment of the Alternative A force main that extends within the open space area, approximately 30 trees with a DBH of 6 inches or greater located within oak woodland and riparian habitat along Miners Ravine and within the adjacent ruderal/developed areas would also require removal to accommodate access for construction equipment. This is considered a potentially significant impact.

The County shall implement **Mitigation Measure 3.3-5**, which requires an arborist survey and report prior to removal of trees, protection of trees to be preserved, and replacement of trees to be removed. This mitigation would reduce impacts to protected trees to less than significant.

**Less-Than-Significant with Mitigation.**

***Alternative B Road Right of Way Alignment***

Construction activities associated with decommissioning of the WWTP and construction of the pump station would result in the removal of approximately 14 trees within the WWTP site with a DBH of 6 inches or greater. Under Alternative B, no trees would be removed as a result of installation of the force main within the ROW of Auburn Folsom Road and Joe Rodgers Road. The removal of trees within the WWTP site is considered a potentially significant impact. The County shall implement **Mitigation Measure 3.3-5**, which requires an arborist survey and report prior to removal of trees, protection of trees to be preserved, and replacement of trees to be removed. This mitigation would reduce impacts to protected trees to less than significant. **Less-Than-Significant with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities associated with decommissioning of the WWTP and construction of the pump station would result in the removal of approximately 14 trees within the WWTP site with a DBH of 6 inches or greater. No trees would be removed as a result of installation of the force main within the ROW of Auburn Folsom Road and Joe Rodgers Road. However, a minor number of trees may be removed during upsizing of the existing SMD 2 force main within the open space area during Phase I of Alternative C. Impacts to trees protected under the Placer County Tree Ordinance would be similar to those identified under Alternative A; however fewer trees would have the potential to be impacted as less construction would occur within the open space area. Implementation of **Mitigation Measure 3.3-5**, including an arborist survey and report, protection of trees to be preserved, and replacement of trees to be removed, would reduce impacts to protected trees to less than significant. **Less-Than-Significant with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

##### **Mitigation Measure 3.3-5: Prepare Arborist Report and Identify Protected Trees and Replace or Compensate as Recommended.**

- Once the construction footprint is finalized, the County shall flag any trees slated for removal prior to groundbreaking activities. A qualified arborist shall survey trees anticipated for removal, identify any protected trees within the Proposed Project footprint and prepare an Arborist Report. The Arborist Report shall identify all native trees with a DBH of six inches or greater or a combined multiple trunk DBH of at least ten inches within the project footprint.
- Each protected tree that is impacted shall be replaced within the vicinity of the proposed pipeline route at a 2:1 ratio of planted to impacted trees or shall be mitigated with the payment of an in-lieu fee of \$100/inch of tree removal.
- Replacement trees shall be planted from the same genetic stock in appropriate soils within appropriate habitats as defined in the Arborist Report. An irrigation plan should be developed prior to planting the trees to ensure successful tree establishment. The overall vigor, crown width, and height of these trees shall be monitored for five years. Dead or diseased trees shall be replaced to ensure that an overall survival rate of 80 percent is achieved at the end of the five-year monitoring period.

Impact

- 3.3-6 Construction activities associated with the installation of the proposed pipeline and the decommissioning of the WWTP site would not conflict with the provisions of the PCGP, Horseshoe Bar/Penryn Community Plan, Granite Bay Community Plan, or any other approved local, regional, or state habitat conservation plan.**

***No Project / No Action Alternative***

Under the No-Action Alternative, there would be no conflict with the provisions of the PCGP, the Horseshoe Bar Community Plan, and the Granite Bay Community Plan, or any other approved local, regional, or state habitat conservation plan because no changes would occur. Existing conditions would remain the same. No impacts would occur.

***Alternative A Hidden Valley Force Main Alignment***

Alternative A would not result in permanent habitat conversion as construction related impacts would be temporary and areas would be restored to existing conditions. Alternative A would also improve water quality in Miners Ravine through the removal of treated effluent discharge as a result of the decommissioning of the WWTP site, and would mitigate for any potential impacts to sensitive habitats, trees, and special status species to less than significant. Therefore, Alternative A would comply with the policies identified within the draft PCCP, Placer County General Plan, Horseshoe Bar/Penryn Community Plan and the Granite Bay Community Plan, including those required for sensitive habitats, trees, and special status species. **Less than significant.**

***Alternative B Road Right of Way Alignment***

Similar to Alternative A, Alternative B would not result in permanent habitat conversion as construction related impacts would be temporary and areas would be restored to existing conditions, would improve water quality in Miners Ravine through the removal of treated effluent discharge as a result of the decommissioning of the WWTP site, and would mitigate for any potential impacts to sensitive habitats, trees, and special status species to less than significant. Therefore, Alternative B would comply with the policies identified within the draft PCCP, Placer County General Plan, Horseshoe Bar/Penryn Community Plan and the Granite Bay Community Plan, including those required for sensitive habitats, trees, and special status species. **Less than significant.**

***Alternative C Hidden Valley Pipe Upsizing***

Similar to Alternative A, Alternative C would not result in permanent habitat conversion as construction related impacts would be temporary and areas would be restored to existing conditions, would improve water quality in Miners Ravine through the removal of treated effluent discharge as a result of the decommissioning of the WWTP site, and would mitigate for any potential impacts to sensitive habitats, trees, and special status species to less than significant.

Therefore, Alternative C would comply with the policies identified within the draft PCCP, Placer County General Plan, Horseshoe Bar/Penryn Community Plan and the Granite Bay Community Plan, including those required for sensitive habitats, trees, and special status species. **Less than significant.**

## Cumulative Impacts

### Impact

#### 3.3-7 Development of the Proposed Project would not contribute to the cumulative loss of special status plant or wildlife species or their habitat in the region.

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, there would be no construction activities and associated effects to biological resources. Effluent discharge to Miners Ravine would continue. The No Project alternative would not contribute towards cumulative effects to biological resources. **No impact.**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

Cumulative projects in the vicinity of the project site, including growth resulting from build-out of the County's General Plan, Horseshoe Bar/Penryn Community Plan, and the Granite Bay Community Plan, and development of the Granite Bay Garage Condos & Self Storage Project, are anticipated to permanently remove plant and wildlife resources, which could affect special status species and their habitat, nesting and foraging habitat for resident and migratory birds, and/or local policies or ordinances protecting biological resources. As development in the County continues, sensitive plant and wildlife species native to the region and their habitat, including those species listed under CESA and FESA and those individuals identified by state and Federal resources agencies as species of concern, fully protected, or sensitive will be lost through conversion of existing open space to urban development. Although mobile species may have the ability to adapt to modifications to their environment by relocating, less mobile species may be locally extirpated. With continued conversion of natural habitat to human use, the availability and accessibility of remaining foraging and natural habitats in this ecosystem would dwindle and those remaining natural areas may not be able to support additional plant or animal populations above their current carrying capacities. The conversion of plant and wildlife habitat on a regional level as a result of cumulative development would potentially result in a regional significant cumulative impact on special status species and their habitats.

Construction of the Proposed Project would not contribute to a loss of regional biological resources through the incremental conversion of habitat for special status species to human use because ground disturbance would be temporary and thus would not result in permanent modification of habitat for regional wildlife. Although the effects of the proposed project alternatives are temporary in nature, and the project alternatives would not contribute to a significant level of cumulative, direct, or indirect effects to sensitive or special status plant or fish and wildlife species and their habitat, migratory birds, or conflict with local plans or policies

### 3.0 Affected Environmental and Environmental Consequences

protecting biological resources, the County would implement mitigation measures specifically designed to avoid, reduce, or mitigate potential impacts to special status species and their habitat. With these measures, the project's contribution to cumulative regional impacts to biological resources would be less than significant. Therefore, after mitigation, impacts would be considered less than significant. **Less-Than-Significant with Mitigation.**

#### **Mitigation Measures 3.3-7: Implement Biological Resources Mitigation Measures 3.3-1 through 3.3-5.**

## 3.4 CULTURAL RESOURCES

This section addresses the potential for the proposed project alternatives to impact cultural resources. Following an overview of the cultural resources setting in **Subsection 3.4.1** and the relevant regulatory setting in **Subsection 3.4.2**, project-related impacts and recommended mitigation measures/BMPs are presented in **Subsection 3.4.3**. The following information is incorporated from the *Cultural Resources Study, Placer County SMD 3 Regional Sewer Project, Placer County, California* prepared by Analytical Environmental Services (2012; **Appendix J**). The cultural resources study will be used for consultation between the U.S. Army Corps of Engineers (USACE) and the State Historic Preservation Officer (SHPO) pursuant to the requirements of Section 106 of the National Historic Preservation Act (NHPA).

### 3.4.1 REGULATORY FRAMEWORK

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Several laws and regulations at the state level govern archaeological and historic resources deemed to have scientific, historic, or cultural value. The pertinent regulatory framework, as it applies to the Proposed Project, is summarized below.

#### Federal

##### ***National Historic Preservation Act***

Section 106 of the NHPA as amended, and its implementing regulations found at 36 CFR Part 800, require Federal agencies to identify cultural resources that may be affected by actions involving Federal lands, funds, or permitting actions. Due to the fact that the Proposed Project requires approval from the Bureau of Reclamation (Reclamation) and issuance of permits from the USACE, the Proposed Project is subject to Section 106 review.

The significance of the cultural resources must be evaluated using established criteria outlined at 36 CFR 60.4, as described below. If a resource is determined to be a *historic property*, Section 106 of the NHPA requires “Federal agencies take into account the effects of their undertaking on historic properties...”. A historic property is defined as:

*...any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property...(NHPA Sec. 301[5])*

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 CFR 800.5. An adverse effect is when an undertaking may alter, directly or indirectly, any characteristic of a property that qualifies it for listing on the NRHP.

### 3.0 Affected Environmental and Environmental Consequences

If it is determined that a historic property will be adversely affected by implementation of a proposed project, measures to avoid, minimize, and mitigate adverse effects must be taken. The SHPO must be provided an opportunity to review and comment on these measures prior to project implementation.

#### ***National Register of Historic Places***

The eligibility of a resource for listing in the National Register of Historic Places (NRHP) is determined by evaluating the resource using criteria set forth in 36 CFR 60.4 as follows: *The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and*

- a) That are associated with events that have made a significant contribution to the broad patterns of our history;
- b) That are associated with the lives of persons significant in our past;
- c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) That has yielded, or may be likely to yield, information important to prehistory or history.

Sites younger than 50 years, unless of exceptional importance, are usually not eligible for listing in the NRHP. In addition to meeting at least one of the criteria outlined above, the property must also retain enough integrity to enable it to convey its historic significance. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity (National Park Service [NPS], 1990). These seven elements of integrity are: location, design, setting, materials, workmanship, feeling, and association. To retain integrity a property will always possess several, and usually most, of these aspects.

While most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or styles (Criteria A, B, and C), the significance of most prehistoric and historic-period archaeological properties is usually assessed under Criterion D. This criterion stresses the importance of the information contained in an archaeological site, rather than its intrinsic value as a surviving example of a type or its historical association with an important person or event. It places importance not on physical appearance but rather on information potential.

#### ***National Environmental Policy Act***

The National Environmental Policy Act (NEPA) requires that Federal agencies take all practicable measures to “preserve important historic, cultural, and natural aspects of our national heritage.” NEPA’s mandate for considering the impacts of a Federal project on important historic and cultural resources is similar to that of Section 106 of the NHPA, and the two processes are generally coordinated when applicable.

## State and Local

### ***California Register of Historical Resources***

PRC Section 5024.1 authorizes the establishment of the California Register of Historical Resources (CRHR). Any identified cultural resources must therefore be evaluated against the CRHR criteria. In order to be determined eligible for listing in the CRHR, a property must be significant at the local, state, or national level under one or more of the four significance criteria, modeled on the NRHP. In order to be determined eligible for listing in the CRHR, a property must be significant at the local, state, or national level under one or more of the following four criteria:

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

In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association. As discussed further in **Subsection 3.4.3**, no cultural resources eligible for listing in the CRHR are known to exist in the project area.

### ***California Environmental Quality Act***

The California Environmental Quality Act (CEQA) requires that, for projects financed by or requiring the discretionary approval of public agencies in California, the effects of the project on historical resources must be considered (PRC Section 21083.2). Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance (PRC Section 50201).

Under the CEQA *Guidelines*, an effect is considered significant if a project will result in a substantial adverse change to the resource (PRC Section 21084.1). Actions that would cause a substantial adverse change to a historical resource include demolition, replacement, substantial alteration, and relocation. Before the significance of impacts can be determined and mitigation measures/BMPs developed, the significance of cultural resources must be determined. The 2000 CEQA *Guidelines* (Section 15064.5) define four cases in which a property may qualify as a significant historical resource for the purposes of CEQA review:

- A. The resource is listed in or determined eligible for listing in the CRHR. Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:
  1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

### 3.0 Affected Environmental and Environmental Consequences

2. Is associated with the lives of persons important in our past;
  3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
  4. Has yielded, or may be likely to yield, information important in prehistory or history.
- B. In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association. Properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (Public Resources Code section 5024.1[d][1]).
- C. The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the Public Resources Code (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
- D. The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record.
- E. The lead agency determines that the resource may be a historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

CEQA also provides for the protection of *unique archaeological resources*. Public Resource Code Section 21083.2 defines unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria: (1) that it contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information; (2) that it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person.

#### **Placer County General Plan**

The Placer County General Plan (General Plan) is the guiding document for development in the unincorporated areas of the County, which includes the properties in the vicinity of the Proposed Project (Placer County, 2008a). Applicable policies in the General Plan that are relevant to cultural resources in the vicinity of the Proposed Project are included as follows:

#### **Goal**

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

**Policies**

- 5.D.3 The County shall solicit the views of the Native American Heritage Commission and/or the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.
  
- 5.D.6 The County shall require that discretionary development projects identify and protect from damage, destruction, and abuse, important historical, archaeological, paleontological, and cultural sites and their contributing environment. Such assessments shall be incorporated into a Countywide cultural resource data base, to be maintained by the Department of Museums.
  
- 5.D.7 The County shall require that discretionary development projects are designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical, or paleontological consultants, depending on the type of resource in question.
  
- 5.D.8 The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

***Horseshoe Bar/Penryn Community Plan***

The Horseshoe Bar/Penryn Community Plan establishes goals and policies for cultural resources within the unincorporated Community Plan area, including portions of the project site (Placer County, 2005). Applicable goals and policies are as follows:

**Goals: Natural Resources Management Element – Cultural and Paleontological Resources**

- a. Preserve and protect the significant paleontological, prehistoric, historical, and natural resources, individually and collectively for future generations.
  
- d. Initiate contact with local Native American organizations and representatives to assure that the Native American community has early access to the planning process.

**Policies**

- a. Identify and protect from damage, destruction and abuse, Placer County’s important historical, archaeological, and cultural sites and their contributing environment (i.e. setting). When possible, incorporate these resources, particularly historical vegetation or vista points, into Open Space areas.
  
- c. Require site-specific studies as part of the environmental review process, for paleontological, prehistoric, historical and natural elements in all instances where land development or property demolition has the potential to have a detrimental impact on a possibly significant cultural resource or historic structure (i.e. buildings aged 45 years or older). Whenever possible, projects

should be planned to avoid adverse impacts to cultural resources. Avoidance strategies are preferred over mitigation of the impacts.

#### **Granite Bay Community Plan**

The Granite Bay Community Plan establishes goals and standards for cultural resources within the unincorporated County, including portions of the project site (Placer County, 2012). Applicable goals and policies are as follows:

#### **Goal: Cultural Resources Element**

1. Preserve all significant cultural resource sites and features.

#### **Policies**

1. Emphasize protection and stabilization of existing cultural resource sites and features over removal or replacement.
2. Encourage retention, integration and adaptive reuse of significant historical resources.

### **3.4.2 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING**

#### **Prehistory**

The most current research on the California's Great Central Valley is a combination of previous research conducted by Heizer and Fenenga (1939), Fredrickson (1974) and Moratto (1984), which have been adjusted to accommodate recent radiometric data. Based on all compiled data, Rosenthal et al. (2007) has devised the following chronological sequence: Paleo-Indian (13,500 to 10,550 B.P.), Lower Archaic (10,550 to 7,550 B.P.), Middle Archaic (7,550 to 2,550 B.P.), Upper Archaic (2,550 to 900 B.P.) and Emergent (900 to ca. 200 B.P.)

Little evidence exists of the Paleo-Indian period (13,500 to 10,550 B.P.) in the Central Valley. The scant evidence available is comprised primarily by basally thinned, fluted projectile points. A possible fluted point was recovered from near Thomas Creek in the Sacramento Valley; this is the only example of the fluted tradition in the northern Central Valley (Rosenthal et al., 2007: 151). The knowledge regarding the Lower Archaic period (10,550 to 7,550 B.P.) in the Central Valley is gleaned from a single site in Kern County (CA-KER-116).

The chronological sequence for the Middle Archaic (7,550 to 2,550 B.P.) is divided into two geographical areas: the foothills tradition and the valley tradition. Overall, Middle Archaic deposits are quite rare in the Sacramento Valley. Generally, the Middle Archaic period is a shift from the highly mobile Paleo-Indian and Lower Archaic peoples to the semi-sedentary people of the Middle Archaic. Grinding tools, including mortars and pestles, become common in Middle Archaic and reflect a greater reliance on acorn and pine nuts. The Upper Archaic (2,550 to 900 B.P.) is better understood than any of the preceding periods. The abundance of grinding tools and archaeobotanical remains indicates a heavy dependence upon acorn. Sites in the upper Sacramento Valley such as CA-BUT-288 represent large village-like settlements (Rosenthal et al., 2007: 155-156).

The Emergent Period (900 B.P. to ca. 200 B.P.) in the Central Valley was also a period of technological adaptation. The bow and arrow was introduced during the Emergent Period and effectively replaced the previously used dart and atlatl technology. Subsistence during this period is based on plant foods and aquatic resources (Rosenthal et al., 2007: 158-159).

## History

Recorded history in the project area begins with the attempts of Spanish colonists to explore parts of California beyond the coastal zone. Gabriel Moraga's expedition was undertaken in 1806, with additional expeditions occurring through the 1840s. Euroamericans began arriving in the mid-1820s, most notably with the trapping party of Jedediah Smith. However, the Euroamerican incursion, with the greatest impact on Native American population and culture, occurred immediately following the discovery of gold at Coloma in 1848, which initiated the Gold Rush of 1849.

The discovery of gold led to the establishment of gold mining camps along the American River and drastically changed the landscape of the area (Mutz, 1980:5). Following the find at Sutter's Mill, two members of the disbanded Mormon Battalion found gold on the south fork of the American River about a mile above its confluence with the north fork; this second find began the rush.

A prominent mining town near the current project area was Texas Hill. The town was located south of Negro Bar and north of Willow Creek on the west side of the American River in the Lake Natoma State Recreation Area (SRA). Extensive mining operations took place in the town until 1855 (Folsom History Museum, 2011). As with the other settlements, once miners depleted the placer deposits, the town disappeared.

Mining continued to dominate the local economy until the early 1940s when the War Production Board halted most gold mining in the United States. Following World War II, local economies turned again to mining and dredging, continuing until about 1962.

## Ethnography

The Proposed Project is located within territory that was traditionally occupied by the Hill Nisenan, who are also referred to as Southern Maidu. These Penutian-speaking peoples occupied the drainages of the southern Feather River and Honcut Creek in the north, through the Bear, Yuba, and American River drainages to the south. Their ethnographic territory extended from the crest of the Sierra Nevada, west to the Sacramento River.

Villages were frequently located on flats adjoining streams, and were inhabited mainly in the winter as it was usually necessary to go out into higher elevation zones to establish temporary camps during food gathering seasons (i.e. spring, summer and fall) (Kroeber, 1925).

Food gathering was based on seasonal ripening, but hunting, gathering, and fishing occurred year round, with the greatest activity in late summer and early fall (Wilson and Towne, 1978). Seasonal harvests could be communal or personal property. Extended families or entire villages of Hill Nisenan would

### 3.0 Affected Environmental and Environmental Consequences

gather acorns. Men would hunt while women and children gathered acorns knocked from trees. Buckeye nuts, sugar and gray pine nuts, and hazelnuts were gathered as well. Roots were dug with a digging stick in the spring and summer and were eaten raw, steamed, baked, or dried and pounded in mortars and pressed into cakes to be stored for winter use. Deer drives were common, with several villages participating and the best marksman doing the killing. The animals were often driven into a circle of fire and then killed. Deer were also hunted using deadfalls, snares, and deerskin and antler decoys. Antelope were taken by surround, drives, and flag decoys while elk were usually killed along waterways on soft ground. Black bears were usually hunted in the winter. Lighted brands were often used to drive them from their dens.

#### Records Search and Literature Review

A records search of the area of potential effect (APE) and ¼ mile radius surrounding the APE was conducted by staff at the North Central Information Center (NCIC) of the California Historical Resources Information System on December 12, 2011 (NCIC PLA-11-82), and a supplemental records search of a portion of the APE not included within the December 2011 radius was completed February, 9, 2012 (PLA-12-13). The NCIC is housed at Sacramento State University and an affiliate of the State of California Office of Historic Preservation (OHP). It is the official state repository of archaeological and historical records and reports for a 6-county area that includes Placer County. Additional research was conducted using the resources on file at the AES office.

The records search and literature review were done to: (1) determine whether known cultural resources had been recorded within or adjacent to the APE and to determine if the parcel was subject to surveys in the past; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

Inventories consulted in the course of the records search include the *National Register of Historic Places- Listed properties and Determined Eligible Properties* (2011), the *California Register of Historical Resources* (2011), the *California Inventory of Historic Resources* (OHP, 1976), the *California Historical Landmarks* (2011), and the *California Points of Historical Interest* listing (OHP, 2011), the *California Directory of Properties in the Historic Property Data Files for Placer County* (OHP, 2011), the *Handbook of North American Indians, Vol. 8, California* (Heizer, 1978), and *Historic Spots in California* (1990), and other pertinent historic data available at the NCIC for Placer County.

The NCIC records search indicates that no previous cultural resources have been recorded within the APE. However, seven historic sites, nine prehistoric sites and one ethnohistoric site have been recorded within a one-quarter of a mile radius of the subject property. The records search also indicates that there have been twenty previous cultural resources studies conducted within or adjacent to the APE.

In addition to the NCIC records, historic maps were consulted while conducting research for the Proposed Project. Maps examined included the GLO (General Land Surveyors Office) Plats for T 11N/R 7E (1856),

T 10/ R7E (1865), T 11N/ R 8E (1866), the 1887-88 USGS Sacramento Sheet and the 1945 USGS Folsom Quadrangle. No historic properties or structures appear within the APE on these historic maps.

#### Field Surveys

The survey was designed to identify historic and prehistoric sites, artifacts, and features within the APE. The survey was conducted to the standards set by the Secretary of the Interior (National Park Service, Bulletin 15, 1990). AES Staff Archaeologist, Tobin Rodman, on May 17<sup>th</sup>, 18<sup>th</sup>, 2011 and again on February 13<sup>th</sup>, 2012 conducted a cultural resources field study of the APE. The study included a pedestrian survey in 10-15 meter linear transects within the APE and along road corridors, beginning at 5 meters from the paved road edge. In addition, cut banks along the roads were examined for soil profiles and surface scrapes and shovel test probes were performed. Surface visibility was considered poor due to most areas (approximately 95 percent) being covered by grass, weeds and moderate forest vegetation due to recent spring rains in May. Ground visibility was improved along the open space area adjacent to the Hidden Valley subdivision when visited in February, due to the dry winter. Additionally, a portion of the APE had been disturbed due to grading for access road construction and land management. The disturbed ground surface piles were examined for archaeological remains, while rodent burrow back-dirt piles and road cuts were examined for indicators of buried archaeological deposits. No historic properties or resources were identified during the field survey of the APE.

#### Native American Consultation

On November 21, 2011, the State of California Native American Heritage Commission (NAHC) was asked to review the Sacred Lands file for information on Native American cultural resources within the APE and to submit a list of local Native American contacts that may have information regarding the APE. The NAHC responded on December 6, 2011 with the results of the sacred lands file and Native American contacts. The record search failed to identify known sacred Native American sites within or adjacent to the APE. The NAHC provided a list of individuals and organizations that have requested to be notified about projects undertaken in the vicinity of the APE, each of which was sent a letter notifying them of the project. On February 27<sup>th</sup>, 2012 two responses were received. Daniel Fonseca, Cultural Resources Director with the Shingle Springs Rancheria, Shingle Springs Band of Miwok Indians requested a consultation meeting and copies of the records search associated with the project. Gregory Baker, Tribal Administrator with the United Auburn Indian Community of the Auburn Rancheria, also requested a copy of the record search to assess potential cultural impacts. The USACE will continue government-to-government consultation with Native American tribes regarding potential effects of the Proposed Project in accordance with Section 106 of the NHPA.

### 3.4.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPS

#### Thresholds/Basis of Significance

An alternative would be considered to have a significant adverse effect on cultural resources or historic properties eligible for listing in the NRHP if it would diminish the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Types of effects include physical

### 3.0 Affected Environmental and Environmental Consequences

destruction, damage, or alteration; isolation or alteration of the character of the setting; introduction of elements that are out of character; neglect; and transfer, lease, or sale.

Additionally, the following significance criteria associated with cultural resources have been adapted from Appendix G of the CEQA *Guidelines* and relevant agency thresholds. An impact to cultural resources is considered significant if implementation of the Proposed Project would:

- Cause a substantial adverse change in the significance of a historic resource as defined in PRC 21083.2, CEQA *Guidelines* Section 15064.5, or cause a property eligible for the National Register of Historic Places to no longer meet the criteria set forth in 36 CFR 60.4;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA *Guidelines* Section 15064.5, or;
- Disturbance or destruction of a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

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

## Project Specific Impacts

### Impact

#### 3.4-1 **Ground-disturbing work associated with construction of the Proposed Project has the potential to affect previously undocumented archaeological resources, human remains and paleontological resources.**

##### ***No Project/No Action Alternative***

Under the No Action Alternative construction activities would not take place. No potential impacts to unknown cultural resources would occur. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

As discussed in **Section 3.4.3**, no known protected archaeological or historic resources were identified within the project site, including WWTP and proposed force main construction corridor, during the cultural resources investigation of the APE. Therefore, the Proposed Project would not cause a substantial adverse change in the significance of a known historic resource or known archaeological resource as defined by CEQA *Guidelines* Section 15064.5, or cause a known property eligible for the National Register of Historic Places to no longer meet the criteria set forth in 36 CFR 60.4. Further, the Proposed Project would not disturb any known paleontological resources, unique geologic features, or human remains. The potential for unknown buried resources to occur within the APE is low. There is always the possibility, however remote, that

### 3.0 Affected Environmental and Environmental Consequences

previously unknown archaeological resources, human remains, or paleontological resources could be encountered during subsurface construction activities. This is considered a potentially significant adverse impact. Recommended mitigation for potential impacts to unknown cultural resources, human remains and paleontological resources is specified below. Implementation of **Mitigation Measures 3.4-1a** and **3.4-1b** would ensure that inadvertently discovered resources that may be eligible to the NHRP and CRHR are identified and important information regarding these remains is recovered. Moreover, implementation of the **Mitigation Measures 3.4-1b and c** will provide for the appropriate treatment of human remains and paleontological resources. These actions would reduce potential impacts to previously unidentified subsurface cultural and paleontological resources to a less-than-significant level. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Under Alternative B, the project components related to the pumping station, emergency storage facilities, and WWTP decommissioning are identical to those described under Alternative A. The proposed force main would be located entirely within the Auburn-Folsom Road and Joe Rogers Road ROW, and would require two crossings of Miners Ravine. As discussed in **Section 3.4.3**, no known protected archaeological or historic resources were identified within the project site, including WWTP and proposed force main construction corridor. With the implementation of **Mitigation Measures 3.4-1a** and **3.4-1b**, potential impacts to unknown buried cultural resources, human remains, and paleontological resources resulting from the Alternative B would be reduced to less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

The location of Alternative C would be similar to Alternative B, with the addition of 900 linear feet of construction activities along Willow Lane and a portion of the open space area. As discussed in **Section 3.4.3**, no known protected archaeological or historic resources were identified within the project site, including WWTP and proposed force main construction corridor. With the implementation of **Mitigation Measures 3.4-1a** and **3.4-1b**, potential impacts to unknown buried cultural resources, human remains, and paleontological resources resulting from the Alternative C would be reduced to less than significant. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.4-1a: Stop Work and Implement Appropriate Measures for Discovery of Unknown Historic Properties.** With the absence of historic properties in the APE, mitigation measures/BMPs for known cultural resources are not warranted. In the event of an unanticipated discovery, all work within the vicinity shall cease until compliance with 36 CFR 800.13(b) Discoveries without prior planning is achieved. Procedures for inadvertent discovery include the following:

### 3.0 Affected Environmental and Environmental Consequences

- All work within 100 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with NRHP and CRHR criteria.
- If any find is determined to be significant by USACE and SHPO then a Memorandum of Agreement (MOA) shall be prepared between USACE and the SHPO to resolve the adverse effects. The Applicant shall provide a Treatment Plan, prepared by an archeologist who meets the Secretary of the Interior's Standards, outlining data recovery measures to be followed. The Treatment Plan shall be submitted to the County, USACE, and SHPO for review and approval in accordance with the MOA, and shall be implemented prior to resuming construction.

All significant cultural materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist according to current professional standards.

**Mitigation Measure 3.4-1b: Stop Work and Implement Appropriate Measures for Discovery of Human Remains.** If human remains are encountered during construction activities, work shall halt immediately in the vicinity and the Placer County Coroner should be notified in accordance with California Health and Safety Code Section 7050.5. If human remains are of Native American origin, the Coroner must, in accordance with PRC Section 5097, notify NAHC within 24 hours of this identification. The most likely descendants (MLD) of the deceased will be contacted by the NAHC, and work will not resume until the appointed MLD has made a recommendation for the treatment of, with appropriate dignity, the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98. Work may resume if NAHC is unable to identify an MLD or the descendant fails to make a recommendation within 48 hours.

**Mitigation Measure 3.4-1c. Stop Work if Paleontological Resources are Identified and Implement Appropriate Measures.** If any paleontological resources (i.e., fossils) are found once project construction is underway, all work in the immediate vicinity must stop and the County will be immediately notified. A qualified paleontologist will be retained to evaluate the find and recommend appropriate mitigation measures for the inadvertently discovered paleontological resources. These measures will be implemented to ensure that the impacts on these resources would be avoided.

## Cumulative Effects

### 3.4-2. The Proposed Project will not result in cumulative effects to cultural resources.

#### *Alternative A Proposed Project, Alternative B, and Alternative C*

Since no cultural resources were identified in the Records and Literature Search or during the field survey no cumulative impacts are anticipated. **Mitigation Measures 3.4-1a-c** provide for the protection of unanticipated discoveries during ground disturbing activities. With the

### 3.0 Affected Environmental and Environmental Consequences

implementation of these mitigation measures/BMPs, cumulative impacts to cultural resources would be less than significant. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

*Alternative A Proposed Project, Alternative B, and Alternative C*

**Mitigation Measure 3.4-2: Implement Cultural Resources Mitigation Measures 3.4-1a-c.**

## 3.5 GEOLOGY, SOILS, AND SEISMICITY

This section addresses the potential for the proposed project alternatives to impact the geology, soils, and seismicity in the vicinity of the project site. Following an overview of the affected environment in **Subsection 3.5.1** and the regulatory framework in **Subsection 3.5.2**, project-related impacts and recommended mitigation measures/Best Management Practices (BMPs) are presented in **Subsection 3.5.3**.

### 3.5.1 AFFECTED ENVIRONMENT / ENVIRONMENTAL SETTING

#### Regional Setting

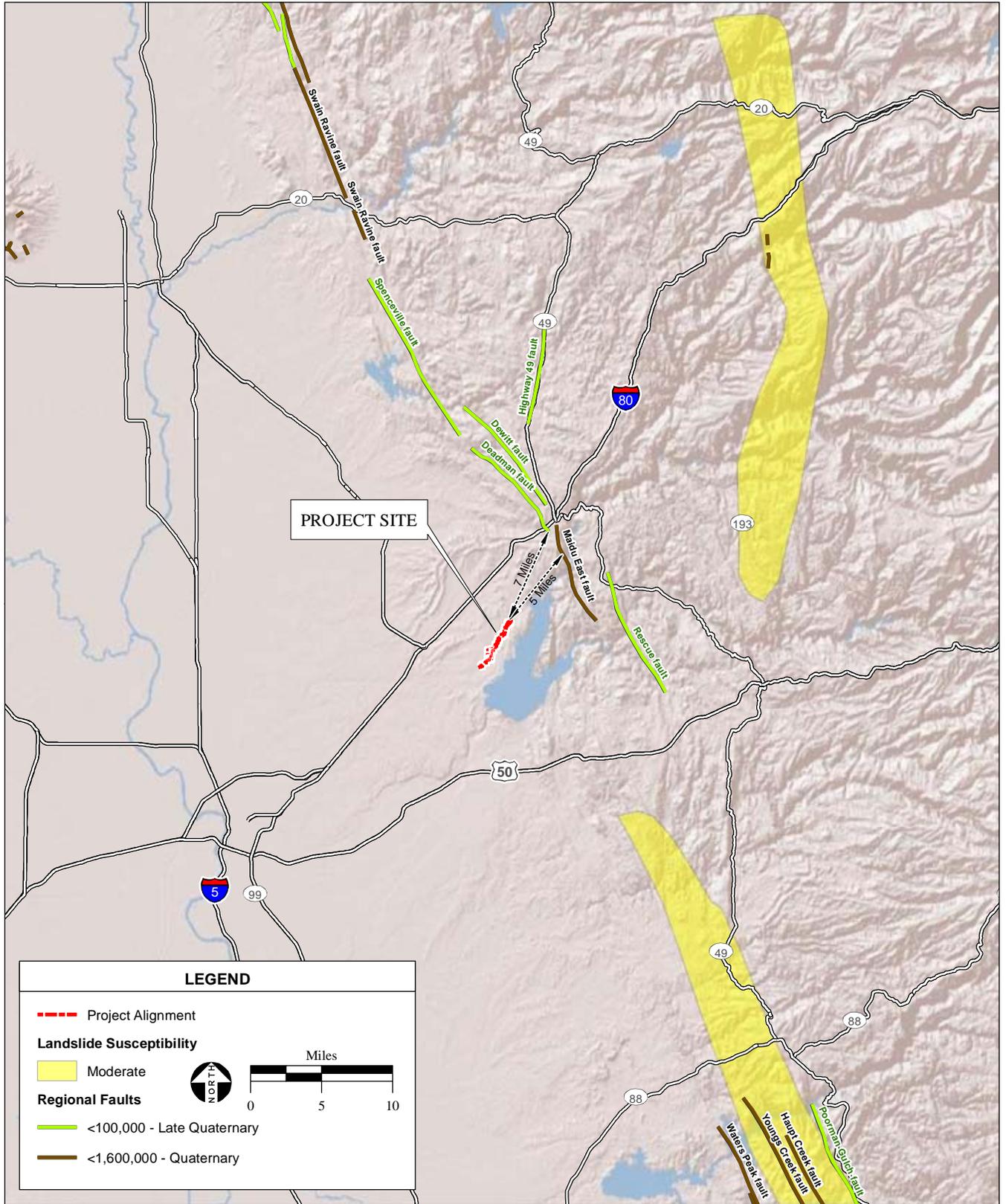
The project area is located within the western portion of the Sierra Nevada Geomorphic Province of California. The Sierra Nevada Province is a tilted fault block approximately 50 to 80 miles wide and 400 miles long; bordered to the west by the Great Valley Geomorphic Province, to the east by the Basin and Range Geomorphic Province, to the south by the Garlock fault, and to the north by volcanic sheets of the Southern Cascades (Warburton, 2004). The eastern face is composed of high, rugged multiple scarp, whereas the western side is composed of gentle slopes that disappear under the sediments of the Great Valley province (California Geologic Survey [CGS], 2002). The western portion of the province is cut with deep river canyons. This area is primarily underlain by granitic rock, metamorphosed volcanic rock, and sedimentary rock of the Paleozoic and Mesozoic age (CGS, 2006).

#### Local Setting

The topography of the project area is gently rolling to flat, with elevation ranging from a low of approximately 217 feet above mean sea level (amsl) at the southwestern end of the alignment to a high of approximately 600 feet amsl at the northeastern end of the alignment (Blackburn Consulting, 2011a). The Proposed Project area is primarily underlain by granodiorite and quartz diorite (granitic rock material) of the Sierra Nevada batholith of the Mesozoic age (Wagner et al. 1981; Livingston, 1974). A detailed discussion of specific soil types is included in the **Soil Resources** section below.

#### Regional Seismicity and Fault Zones

The Alquist-Priolo Act defines active faults as those that have shown seismic activity during the Holocene period, approximately the past 11,000 years, while potentially active faults are those that have shown activity within the Quaternary period, or the past 1.8 million years (CGS, 2003). According to the United States Geological Survey (USGS) Earthquake Hazards Program (2007), the nearest faults are the Maidu East fault, approximately 5 miles northeast, and the Deadman fault, approximately 7 miles northeast of the Proposed Project site (**Figure 3.5-1**). None of the faults portrayed on **Figure 3.5-1** have been active within the last 100,000 years. The closest faults that have been active within the last 100,000 years include the Cleveland Hill fault, approximately 47 miles north, and the Dunnigan Hills fault, approximately 39 miles west of the Proposed Project site. The Cleveland Hill fault was last active in the Historic period, while the Dunnigan Hills fault was last active during the Holocene period.



SOURCE: USGS Earthquake Hazards Program, 2007; USGS Geology Map of Northern California, 2/2001; NAIP Aerial Photograph, 7/2009; AES, 2012

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**Figure 3.5-1**  
Geologic Hazards

### ***Seismic Shaking Intensity***

A common measure of earthquake intensity and effects due to ground shaking is the Modified Mercalli Intensity (MMI) Scale. The range of MMI values and a description of intensity factors are displayed in **Table 3.5-1**. The MMI values for intensity range from I to XII, with intensity descriptions ranging from an event not felt by most people (I) to nearly total damage (XII). Between these two extreme ranges, intensities that range from IV to XI have the potential to cause moderate to significant structural damage.

The Richter Scale is a measure of magnitude of an earthquake's seismic energy release, with higher numerical values for stronger earthquakes and the effects associated with each level. The relationship between an earthquake's magnitude (Richter) and intensity (MMI) is shown in **Table 3.5-2**.

According to the California Geological Survey (CGS), a probabilistic seismic hazard map shows the potential hazards of earthquakes, which geologists and seismologists agree could occur in California. These maps are probabilistic due to the inherent uncertainties of the size, location and the resulting ground motion effects to a particular area of California. The seismic hazard maps are expressed in terms of the probability of exceeding a certain ground motion (how many times the acceleration of gravity). For example, if a location has a ten-percent probability of exceedance in 50 years, then there is an annual probability of 1 in 475 of being exceeded each year (CGS, 2008). Engineers use these probability measurements to design buildings to withstand large ground motions; more than what is believed to occur during a 50-year interval, and effectively make buildings safer (CGS, 2008). A map of potential seismic hazards is included in **Figure 3.5-1**.

Ground motion probabilities are dependent upon site-specific soil conditions, which CGS Seismic Hazard Maps classified for three types of soils: firm rock, soft rock, and alluvium. According to the CGS Probabilistic Seismic Hazards Map, the project site is located within an area that has a 10-20 percent probability of the peak ground acceleration (PGA) being exceeded from a seismic event in 50 years (CGS, 2007). The ground-shaking probabilities have associated average peak acceleration rates that correspond to MMI rating between VIII and IX (**Table 3.5-1**). Earthquakes of these intensity values could cause slight damage in specially designed buildings and considerable damage to buildings of ordinary design. If affected building structures are of a poor design or outdated, then the damage from such an earthquake could be substantial.

### ***Liquefaction, Slope Instability and Surface Rupture Potential***

Liquefaction is the sudden loss of soil strength caused by seismic forces acting on water-saturated, granular soil, leading to a "quicksand" condition generating various types of ground failure. Estimating the potential for liquefaction must account for soil types, soil density, and groundwater table depth, and the duration and intensity of ground-shaking. Liquefaction can occur during seismic events with a MMI intensity value of VII or higher.

### 3.0 Affected Environmental and Environmental Consequences

**TABLE 3.5-1**  
MODIFIED MERCALLI INTENSITY SCALE

<b>Intensity Value</b>	<b>Intensity Description</b>	<b>Average Peak Acceleration</b>
I.	Not felt except by a very few persons under especially favorable circumstances.	< 0.0015g
II.	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.0015g
III.	Felt quite noticeably indoors, especially on upper floors of buildings, but many persons do not recognize it as an earthquake. Standing cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.	< 0.0015g
IV.	During the day felt indoor by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably.	0.015g-0.02g
V.	Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	0.03g-0.04g
VI.	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.	0.06g-0.07g
VII.	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.	0.10g-0.15g
VIII.	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving cars disturbed.	0.25g-0.30g
IX.	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.50g-0.55g
X.	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 0.60g
XI.	Few, if any, masonry structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 0.60g
XII.	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 0.60g
<p>Note: <sup>a</sup> g is gravity = 9.8 meters per second squared. Source: Bolt, 1988.</p>		

**TABLE 3.5-2**  
APPROXIMATE RELATIONSHIP BETWEEN EARTHQUAKE MAGNITUDE AND INTENSITY

Richter Scale Magnitude	Maximum Expected Intensity (MMI) Scale	Distance Felt (Approximate Miles)
3.0 – 3.9	I – III	15
4.0 – 4.9	IV – V	30
5.0 – 5.9	VI – VII	70
6.0 – 6.9	VII – VIII	125
7.0 – 7.9	IX - X	250

Source: California Office of Emergency Services, 2005

Soils comprised of sand and sandy loams that are in areas with high groundwater tables or high rainfall are subject to liquefaction. Based on the Geotechnical Report completed by Blackburn Consulting, the project site primarily consists of terrace deposits, silty sand, gravelly sand, and clayey soil, underlain with granitic rock (Blackburn Consulting, 2011a). The Geotechnical Report also revealed that fractured granitic rock and groundwater are present at shallow depths within the project area (Blackburn Consulting, 2011a). Borings completed for the Geotechnical Report indicate that groundwater exists as shallow as 2 feet below ground surface (bgs) in some areas at the project site. Although the soil and groundwater conditions are consistent with geologic settings susceptible to liquefaction, the potential for liquefaction to occur is limited based on the minimal potential for seismic activity in the project area.

***Subsidence and Settlement***

Seismic settlement is the compaction of soil materials caused by ground-shaking or the extraction of underground fluids (water, oil, gas). Settlement can be caused by liquefaction or densification of silts and loose sands as a result of seismic loading. Such settlement may range from a few inches to several feet, and be controlled in part by bedrock surfaces (which prevent settlement) and old lake, slough, swamp, or stream beds which settle readily. Static settlement can occur through increased loading of the surface or subsurface materials, such as that imposed by foundations for structures. Dewatering for excavation and foundation construction can cause settlement of drying subsurface materials if water formed part of the support for the surface soils.

***Surface Fault Rupture***

Surface ground rupture along faults is generally limited to a linear zone a few meters wide. Because no active faults have been mapped across the project site by the California Geological Survey or USGS, nor is the project site located within an Alquist-Priolo Earthquake Special Study Zone, fault ground rupture does not represent a hazard at the project site.

## Soil Resources

### **Soil Types**

Soil types and their distribution in the project area, depicted in **Figure 3.5-2**, were identified through a review of maps provided by the Natural Resources Conservation Service (NRCS). With the exception of urbanized areas where soils typically consist of engineered fill, the NRCS soil characteristics describe native, undisturbed soils. Descriptions of the soil units mapped for the study area are provided below (NRCS, 2012).

#### **Andregg coarse sandy loam, 2%-9% Slopes (106)**

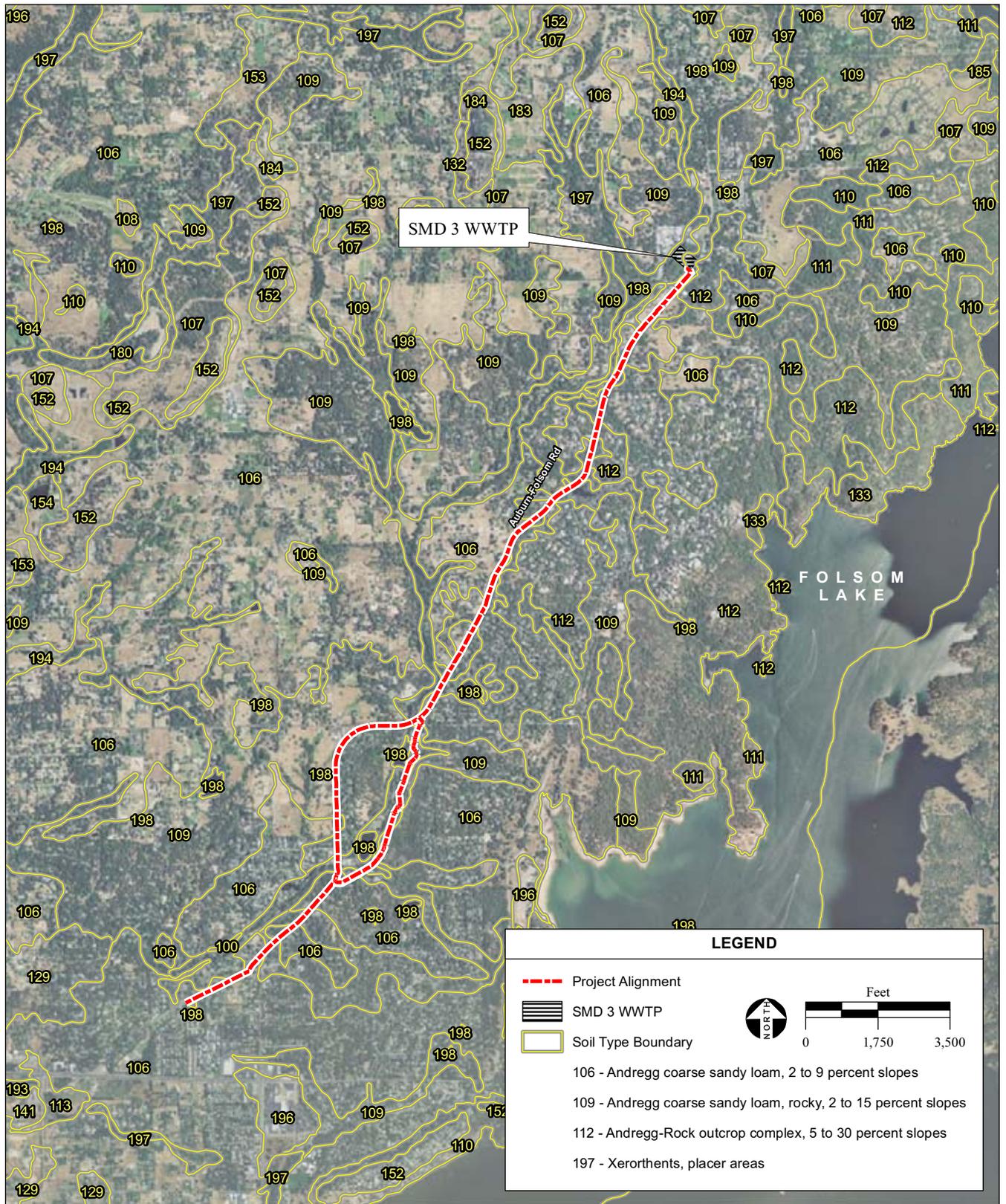
This is a well drained soil which generally occurs at elevations between 200 and 1,500 feet amsl. These soils comprise approximately 30.2 acres, 43.8 percent, of the total acreage. The typical profile of this soil is 0-29 inches bsl of coarse sandy loam, and 29-33 inches bsl of weathered bedrock. This soil is characterized as having a slight hazard of off-road erosion, a low shrink-swell potential, and being moderately corrosive to concrete. The 106 soil unit has been assigned to hydrologic group B, which corresponds to having a moderate infiltration rate when thoroughly wet, and consisting primarily of moderately deep to deep, moderately well drained to well drained soils with a moderately fine to moderately coarse texture. Soils in this hydrological group typically have a moderate rate of water transmission. The NRCS farmland classification identifies this soil unit as being farmland of statewide importance.

#### **Andregg coarse sandy loam, rocky, 2%-15% Slopes (109)**

This is a well drained soil which generally occurs at elevations between 200 and 1,500 feet amsl. These soils comprise approximately 27.4 acres, 39.8 percent, of the total acreage. The typical profile of this soil is 0-29 inches bsl of coarse sandy loam, and 29-33 inches bsl of weathered bedrock. This soil is characterized as having a slight hazard of off-road erosion, a low shrink-swell potential, and being moderately corrosive to concrete. The 109 soil unit has been assigned to hydrologic group B, which corresponds to having a moderate infiltration rate when thoroughly wet, and consisting primarily of moderately deep to deep, moderately well drained to well drained soils with a moderately fine to moderately coarse texture. Soils in this hydrological group typically have a moderate rate of water transmission. The NRCS farmland classification identifies this soil unit as being farmland of statewide importance.

#### **Andregg-Rock outcrop complex, 5%-30% Slopes (112)**

This is a shallow, well drained soil which generally occurs at elevations between 200 and 4,000 feet amsl. These soils comprise approximately 1.4 acres, 2.0 percent, of the total acreage. The typical profile of this soil is 0-4 inches bsl of weathered bedrock. This soil is characterized as having a moderate hazard of erosion, a low shrink-swell potential, and being moderately corrosive to concrete. The 112 soil unit has been assigned to hydrologic group B, which corresponds to having a moderate infiltration rate when thoroughly wet, and consisting primarily of moderately deep to deep, moderately well drained to well drained soils with a moderately fine to moderately coarse texture. Soils in this hydrological group typically have a moderate rate of water transmission. The NRCS farmland classification identifies this soil unit as not prime farmland.



SOURCE: Soil Survey Geographic (SSURGO) database for Placer County, California, Western Part, 1998-2007; NAIP Aerial Photograph, 7/2009; AES, 2012

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**Figure 3.5-2**  
Soil Survey

#### **Xerorthents, placer areas, 2%-5% Slopes (197)**

This is a well drained soil which generally occurs at elevations between 50 and 3,200 feet amsl. These soils comprise approximately 9.8 acres, 14.3 percent, of the total acreage. The typical profile of this soil is 0-60 inches bsl of variable soil types. This soil is characterized as having a slight hazard of erosion and being moderately corrosive to concrete. The 197 soil unit has been assigned to hydrologic group D, which corresponds to having a slow infiltration rate when thoroughly wet. The NRCS farmland classification identifies this soil unit as not prime farmland.

#### **Soil Erosion**

Soil erosion is the removal and transportation of soil materials from the ground surface that results in deposition in a remote location. Common mechanisms of soil erosion include natural occurrences, such as wind and storm water runoff, as well as human activities that may include changes to drainage patterns and the removal of vegetation. Factors that influence the rate of soil erosion include the physical properties of the soil, topography and slopes, rainfall and peak rainfall intensity. Andregg-rock outcrop soil has a higher chance of erosion; however, it is the least dominant soil type in the project area. In the project area, undeveloped riparian habitat would be more susceptible to soil erosion than developed areas along the Auburn-Folsom Road and Joe Rodgers Road ROW. Susceptibility to erosion is controlled by several factors, including terrain, land use, vegetation, soil type, and local climate. A soil with high erosion potential typically experiences more erosion than a soil with low erosion potential. However, in the absence of an adverse condition (i.e., rainfall, lack of vegetation), a soil that is classified as highly erodible may not experience significant erosion. In general, the potential for significant soil erosion would occur only at locations of surface disturbance such as at the margins of constructed features (e.g., feathered edges, side channels, floodplains) where a combination of fine sandy to silty soils occurs. Erosion and potential project-related impacts due to erosion are discussed in more detail within **Section 3.7** (Hydrology and Water Quality).

#### **Mineral Resources**

In compliance with the California Surface Mining and Reclamation Act (SMARA), the California Division of Mines and Geology (CDMG) has established the classification system shown in **Table 3.5-3** to denote both the location and significance of key extractive mineral resources.

Under SMARA, the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. The Board's decision to designate an area is based on a classification report prepared by CDMG and on input from agencies and the public.

Mineral resources known to occur throughout the County include sand, gravel, clay, gold, quartz, decomposed granite, and crushed quarry rock; however, clay, stone, gold, sand, and gravel are the only resources currently being extracted. Based on the USGS Mineral Resource Data System, twelve mines are located within three miles of the Proposed Project area, one being an active producer and the remaining eleven being past producers (USGS, 2011). Barton Drift is the only mine within three miles of the Proposed Project site that is listed as a current producer, and is used for the production of gold. None of the mines in the area will be impacted by the Proposed Project and there are no known mineral resources that occur within the project site

### 3.0 Affected Environmental and Environmental Consequences

**TABLE 3.5-3**

CALIFORNIA DIVISION OF MINES AND GEOLOGY MINERAL LAND CLASSIFICATION SYSTEM

<b>Classification</b>	<b>Description</b>
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated from existing data
MRZ-4	Areas where available data are inadequate for placement in any other mineral resource zone
Note: MRZ = Mineral Resource Zone Source: DOC, 2009a	

### 3.5.2 REGULATORY FRAMEWORK

#### Federal

##### ***Federal Earthquake Hazards Reduction Act***

In October 1997, the U.S. Congress passed the Earthquake Hazards Reduction Act to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives. NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRPA designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies include the National Institute of Standards and Technology, National Science Foundation, and USGS.

##### ***National Pollutant Discharge Elimination System Permit (NPDES)***

Section 402 of the Clean Water Act (CWA) (33 USC § 1251-1376), as amended by the Water Quality Act of 1987, establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. The State Water Resources Control Board (State Water Board) administers regulations and permitting for the U.S. Environmental Protection Agency (55 CFR 47990) for pollution generated from stormwater under the NPDES permit. There are nine Regional Water Quality Control Boards (RWQCBs) that implement the State Water Board’s jurisdiction and require that an operator of any construction activities with ground disturbances of 1.0 acre or more obtain a General Construction Permit through the NPDES Stormwater Program. The project site is within the jurisdiction of the Central Valley RWQCB (CVRWQCB). The

### 3.0 Affected Environmental and Environmental Consequences

General Construction Permit requires that the implementations of Best Management Practices (BMPs) be employed to control erosion and reduce sedimentation and non-visible pollutants into surface waters. The preparation of a Storm Water Pollution Protection Plan (SWPPP) addresses control of water pollution that includes the effects of sediments in the water during construction activities. These elements are further explained within **Section 3.7**, Hydrology and Water Quality.

#### State

##### ***Alquist-Priolo Earthquake Fault Zoning Act***

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

##### ***California Seismic Hazards Mapping Act***

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

##### ***California Building Standards Code***

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

The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design.

##### ***California Surface Mining and Reclamation Act***

SMARA was enacted by the California Legislature to regulate activities related to mineral resource extraction. The act requires the prevention of adverse environmental effects caused by mining, the reclamation of mined lands for alternative land uses, and the elimination of hazards to public health and safety from the effects of mining activities. At the same time, SMARA encourages both the conservation

### 3.0 Affected Environmental and Environmental Consequences

and the production of extractive mineral resources, requiring the State Geologist to identify and attach levels of significance to the state's varied extractive resource deposits. Under SMARA, the mining industry in California must plan adequately for the reclamation of mined sites for beneficial uses and provide financial assurances to guarantee that the approved reclamation will actually be implemented. The requirements of SMARA must be implemented by the local lead agency with permitting responsibility for the proposed mining project.

#### Local

##### ***Placer County Grading Ordinance***

The Grading, Erosion and Sediment Control Ordinance of Placer County (Grading Ordinance; Article 15.48 of County Code) regulates grading activities on properties within unincorporated areas of Placer County with the following goals and requirements.

##### **Goals:**

- Safeguard life, limb, health, property and public welfare.
- Avoid pollution of watercourses with hazardous materials, nutrients, sediments, or other earthen materials generated on or caused by surface runoff on or across the permit area.
- Ensure that the intended use of a graded site is consistent with the Placer County general plan, any specific plans adopted thereto and applicable Placer County ordinances including the zoning ordinance, flood damage prevention ordinance, environmental review ordinance and applicable chapters of the California Building Code.

##### **General Requirements:**

15.48.040 Grading: No person shall do or permit to be done any grading in such a manner that quantities of dirt, soil, rock, debris or other material substantially in excess of natural levels are washed, eroded or otherwise moved from the site, except as specifically provided for by a permit. In no event shall grading activities cause or contribute to the violation of provisions of any applicable NPDES stormwater discharge permit.

15.48.050 Water Obstruction: No Person shall do or permit to be done any grading which may obstruct, impede or interfere with the natural flow of storm waters, in such manner as to cause flooding where it would not otherwise occur, aggravate any existing flooding condition or cause accelerated erosion. This section applies whether such waters are unconfined upon the surface of the land or confined within land depressions or natural drainage ways, unimproved channels or watercourses, or improved ditches, channels or conduits.

15.48.060 Grading permit required: Except for the specific exemptions listed in Section 15.48.070 of this article, no person shall do or permit to be done any grading on any site in the unincorporated areas of Placer County without a valid grading permit obtained from the community development resource agency. A grading permit is required for any grading and/or other construction activity with ground disturbance of one acre or more.

#### ***Placer County General Plan***

The following Placer County General Plan goals and policies associated with seismic and geologic hazards are applicable to the proposed project alternatives (Placer County, 2008a).

#### **Goal:**

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

#### **Policies:**

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

#### ***Horseshoe Bar/Penryn Community Plan***

The following goals and policies outlined in the Horseshoe Bar/Penryn Community Plan relating to soils and geology are applicable to the proposed project alternatives (Placer County, 2005).

#### **Goals: Natural Resources Management Element - Soils**

- (1) Conservation of soils as a valuable natural resource.
- (2) Minimize soil loss due to accelerated erosion.

#### **Policies:**

- (1) Utilize the existing inventory of important soil types to serve as a means of identifying unique and important resources prior to project development. In the absence of more detailed site specific

### 3.0 Affected Environmental and Environmental Consequences

studies, determination of soil suitability for particular land uses shall be made according to the Soil Conservation Service's Soil Survey of Placer County.

- (2) Coordinate with local, state and federal agencies with a trustee responsibility for the management of natural resources when land development activities affect soil resource conservation and management efforts.
- (4) Ensure implementation of the Placer County Grading Ordinance to protect against sedimentation and soil erosion. Minimize grading during the rainy season to reduce erosion and sedimentation potential to provide for slope stability.
- (5) Developers shall provide adequate drainage and erosion control during construction as described in the Placer County Land Development Manual.

#### **Goals: Natural Resources Management Element - Geology**

- (1) Minimize loss of life, injury, damage to property, and impacts to human health resulting from geologic hazards.
- (2) Identify and protect important geologic and mineral resources in the plan area.

#### **Policies:**

- (1) A detailed geological report shall be prepared during the environmental review process for public and private development projects proposed in high hazard areas. Recommendations of said report shall be incorporated as mitigation measures or conditions of project approvals, as appropriate. Such reports shall be completed by a registered geologist, or other qualified specialist, and shall conform to standards adopted by Placer County. A soils report shall be required for all building and grading permits located within areas of known slope instability or where significant potential hazards have been identified.
- (2) Require a soils report on all building permits and grading permits within areas of known slope instability or where a significant potential hazard has been identified.
- (3) Require septic leach fields and drainage plans during the environmental review process to direct runoff and drainage away from steep and/or unstable slopes.
- (4) During project review, consider the development limitations of geologic formations.

#### ***Granite Bay Community Plan***

The following goals and policies outlined in the Granite Bay Community Plan relating to soils and geology are applicable to the proposed project alternatives (Placer County, 2012).

**Goal: Health and Safety Element – Seismic Safety**

1. Protect the lives and property of the citizens of the Granite Bay area from unacceptable risk resulting from seismic and geologic hazards.

**Policies:**

1. Maintain strict enforcement of seismic safety standards for new construction contained in the Uniform Building Code.
2. Review future developments using all available seismic data and considering recommendations from the Health and Safety Chapter of the Countywide General Plan Policy Document.
3. Require soils or geologic reports for construction or extensive grading in identified geologic hazard areas.

### 3.5.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPs

#### Methodology

This section identifies any impacts to geology and soils that could result from construction, operation, and/or maintenance of the Proposed Project. Impacts to and from geological resources were analyzed based on an examination of the project site, published information regarding geological hazards of the project area, field studies, and comparison of these factors to the significance criteria listed below. If significant impacts are likely to occur, mitigation measures/BMPs are included to increase the compatibility and safety of the Proposed Project and to reduce impacts to less-than-significant levels.

#### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to geology and soils have been developed based on Appendix G of the California Environmental Quality Act's (CEQA) *Guidelines* and relevant agency thresholds. Impacts to geology and soils would be considered significant if the Proposed Project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction;
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- Be located in a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- of off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil.

### 3.0 Affected Environmental and Environmental Consequences

- 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.
- 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.
- 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.

#### Effects Found Not to be Significant

The Initial Study (**Appendix C**) concluded that the Proposed Project would be constructed within the WWTP site and previously developed areas beneath existing roadways and road shoulders; therefore, construction of the Proposed Project would not result in a significant effect from the loss of availability of a known mineral resource. Additionally, no mineral resources are known to be present in the vicinity of the project area. The Initial Study also concluded that the Proposed Project would not be located on expansive soils or include the installation of septic tanks or alternative wastewater disposal systems; therefore, the Proposed Project would have no effect on geology and soils relating to wastewater disposal. These effects are therefore not considered within this EA/EIR.

#### Project Specific Impacts

##### Impact

- 3.5-1 The project would not expose people or structures to adverse effects including the risk of loss, injury, or death involving seismic hazards.**

##### ***No Project/No Action Alternative***

Under the No Action Alternative, the SMD 3 WWTP would not be decommissioned and the new pump station and wastewater conveyance facilities would not be constructed; therefore, impacts relating to seismic hazards would not occur as a result of this alternative. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

In accordance with Placer County's General Plan policies, all project facilities, including the pump station, re-purposed storage facilities, and force main will be constructed in accordance with recommendations set forth in the Geotechnical Investigation Report (Blackburn Consulting, 2011b). The Proposed Project area does not lie within, or adjacent to, an Alquist-Priolo Earthquake Fault Zone (Bryant, W. and E. Hart, 2007). Geologic mapping does not identify Holocene or Late Quaternary age faults (faults active in the last 700,000 years) as being present within, or immediately adjacent to, the project site. The Dunnigan Hills Fault, approximately 39 miles west of the project site, is the closest fault that has been active in the last 100,000 years. Based on the lack of active faults in the area, ground rupture and fault creeping are not expected to occur. According to CGS, seismic activity in the project area is uncommon but has the potential to produce an earthquake intensity scale rating of (MMI) of VII, with associated PGA values of 0.1 g-force in firm rock, 0.109 in soft rock, and 0.145 in alluvium (CGS, 2003). These PGA values indicate low levels of seismic ground shaking. A seismic event of this intensity could

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result in negligible damage in buildings of good design and construction. Project facilities and alignments proposed under Alternative A would not be located within a seismically active region, and thus would not likely be subject to strong ground shaking. Topography in the area ranges from gently rolling to flat; therefore, impacts related to landslides would be less than significant.

The Placer County General Plan requires adherence to the Uniform Building Code (UBC) and California State Building Code (CBC) standards for all new construction and development projects. Project components would be designed and constructed in accordance with applicable provisions of the American Water Works Association (AWWA) Standards, CBC, and the UBC to avoid or minimize the potential impacts to proposed facilities resulting from seismic activity. Measures incorporated into project design would further reduce potential impacts related to seismic activity. Trench design would follow the Placer County standard for Low Pressure System Details with the exception that the trench width will provide 12 inches of clearance between pipe and trench wall in order to provide proper support for the flexible pipe and reduce the potential for destruction resulting from seismic hazards. Additionally, pipe materials, valves, depth of cover, maintenance, and corrosion protection measures will comply with applicable County Specifications and practices to reduce the potential for impacts resulting from seismic hazards. With the implementation of the proposed project design, impacts relating to seismic hazards under Alternative A would be considered less than significant. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would be located in the same geographic area as Alternative A and therefore, would have the same impacts relating to seismic hazards. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would be located in the same geographic area as Alternative A and therefore, would have the same impacts relating to seismic hazards. **Less-Than-Significant Impact.**

### **Impact**

- 3.5-2 The project would not 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.**

#### ***No Project/No Action Alternative***

Under the No Action Alternative, the SMD 3 WWTP would not be decommissioned and the new pump station and wastewater conveyance facilities would not be constructed; therefore, impacts relating to unstable soils would not occur. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

All project facilities, including the pump station, re-purposed storage facilities, and pipeline will be constructed in accordance with recommendations set forth in the Geotechnical Recommendations Report (Blackburn Consulting, 2011b). Construction activities under Alternative A involve excavating soils to install a new pumping station, and wastewater conveyance facilities. Geologic characteristics at the site that could potentially become unstable or result in on-or-off-site landslide, lateral spreading, subsidence, liquefaction or collapse include a soft bedrock layer located 20 to 40 inches bgs and slopes ranging from 2-30 percent. The geologic and soil characteristics of the site are considered stable for development and are currently supporting an existing WWTP as well as Auburn-Folsom Road. The project site is not located within a seismically active area, making the chances of lateral spreading, subsistence, liquefaction and collapse unlikely. The geologic features and soils of the area would be capable of supporting the Proposed Project when constructed in accordance with project design and building standards. As previously discussed, compliance with the UBC and the CBC in addition to project design would reduce potential impacts resulting from landslide, lateral spreading, subsidence, liquefaction or collapse to less than significant levels. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would be located in the same geographic area as Alternative A and therefore, would have the same impacts relating to unstable geologic features. Project design would reduce potential impacts to less than significant levels. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would be located in the same geographic area as Alternative A and therefore, would have the same impacts relating to unstable geologic features. Project design would reduce potential impacts to less than significant levels. **Less-Than-Significant Impact.**

### **Impact**

#### **3.5-3 Construction activities associated with the project could potentially result in increased erosion and short-term sedimentation of nearby surface waterways.**

#### ***No Project/No Action Alternative***

Under the No-Action Alternative, no construction-related erosion or associated sedimentation of nearby surface waterways would occur because the project would not be constructed. The existing water quality conditions due to discharge into Miners Ravine Creek would remain the same, but no additional impacts are expected. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Construction of the Proposed Project would temporarily result in soil disturbance, soil compaction within proposed access road and construction staging areas, disruption of soil cohesion, and

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increased soil exposure to energetic weather conditions, which would increase the short-term potential for wind and water erosion. Increased wind and water erosion and associated downstream sedimentation within nearby surface waterways would occur if any soils were left exposed during periods of precipitation. Associated water quality impacts to anadromous fisheries are analyzed in **Section 3.3**, Biological Resources.

Construction-related activities such as trenching, excavating, and compacting soils have the potential to result in increased erosion and short-term sedimentation of nearby surface waterways. The majority of excavation and backfill is anticipated to occur along the pipeline alignment where the trench must be closed at the end of each work day, so excavated soils will be briefly stockpiled next to the trench and then backfilled the same day. Approximately 5,700 cubic yards of pipe bedding will be imported and 7,600 cy of soil excavate will be exported during construction of Alternative A (quantities include both Phase I and Phase II construction activities).

Under Alternative A, the force main would be constructed within the Auburn-Folsom Road and Joe Rodgers Road ROW, as well as through an open space area and Willow Lane. Approximately 18,100 linear feet (3.5 miles) of construction would take place within the ROW, and 4,950 feet (.9 miles) would occur within the open space area requiring linear trenching, excavation, and vegetation removal adjacent to Miners Ravine riparian habitat. Given the location of construction adjacent to riparian habitat within constituent soil types that are susceptible to erosion, a greater potential for erosion and short-term sedimentation of nearby surface waterways would occur in this area. This is considered a potentially significant impact. In accordance with the CWA, the County would obtain a NPDES General Construction Permit for construction activities and implement certain BMPs during construction (see **Mitigation Measure 3.5-3**). With implementation of the proposed mitigation/BMPs, impacts to surface water and groundwater quality associated with soil erosion from construction activities would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Construction activities under Alternative B would be similar to Alternative A; however, the location of the force main alignment would differ. Under Alternative B, the force main would be constructed entirely within the Auburn-Folsom Road and Joe Rodgers Road ROW, and would consist of approximately 23,250 LF of pipeline installation. This Alternative would not involve construction through Willow Lane and the open space riparian area with a higher susceptibility to soil erosion; however, it would be approximately 200 feet longer than the Proposed Project and would require two pipeline crossings of Miners Ravine. As discussed in **Section 2.4.3**, construction methods for installing the force main under Miners Ravine would either involve using jack and bore tunneling or directional drilling to avoid disturbing surface soils.

Construction-related activities under Alternative B have the potential to result in increased erosion and short-term sedimentation of nearby surface waterways. This is considered a potentially significant impact. In accordance with the CWA, the County would obtain a NPDES General Construction Permit for construction activities and implement certain BMPs during construction

(see **Mitigation Measure 3.5-3**). With implementation of the proposed mitigation, impacts to surface water and groundwater quality associated with soil erosion from construction activities would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative B; however project phasing would differ such that Phase I would include upgrading 900 feet of the existing SMD 2 sewer system between MH F15-13 and MH F15-16 directly adjacent to Miners Ravine riparian habitat. Upsizing the existing pipeline would require trenching to a depth of 15 to 20 feet below ground surface, below the level of the creek. This alternative would require linear trenching, excavation, vegetation removal and dewatering near riparian habitat adjacent to Miners Ravine. This would result in a greater potential for erosion and sedimentation within nearby surface waterways than Alternative B.

Construction-related activities under Alternative C have the potential to result in increased erosion and short-term sedimentation of nearby surface waterways. This is considered a potentially significant impact. In accordance with the CWA, the County would obtain a NPDES General Construction Permit for construction activities and implement certain BMPs during construction (see **Mitigation Measure 3.5-3**). With implementation of the proposed mitigation, impacts to surface water and groundwater quality from construction activities under Alternative C would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.5-3: Implement Mitigation Measure 3.7-1a - Obtain Coverage Under the SWRCB NPDES General Construction Permit and Implement Water Quality BMPs to Prevent Sedimentation and Erosion.**

## **Cumulative Impacts**

### **Impact**

**3.5-4 Development of the Proposed Project in combination with future projects in Placer County could result in cumulative impacts associated with geology and soils.**

#### ***No Project/No Action Alternative***

Under the No-Action Alternative, the SMD 3 WWTP would not be decommissioned, and the proposed sewer force main and associated components would not be constructed. Therefore, no cumulative impacts associated with seismic hazards and soils would occur. **No Impact.**

#### ***Alternative A Proposed Project, Alternative B and Alternative C***

Implementation of the Proposed Project and other potential cumulative projects in the region could result in increased erosion and soil hazards and could expose structures to seismic hazards. Potential soil and seismic hazards from cumulative development could represent a significant cumulative impact if projects do not incorporate grading/erosion plans and are not developed to the latest building standards incorporating recommendations from site-specific geotechnical reports prepared for these projects. Implementation of project design and mitigation measures/BMPs would avoid, reduce, or mitigate potential impacts associated with geology and soils. Therefore, after mitigation, the project would not contribute towards cumulative impacts associated with geology and soils. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.5-4: Implement Mitigation Measure 3.7-1a - Obtain Coverage Under the SWRCB NPDES General Construction Permit and Implement Water Quality BMPs to Prevent Sedimentation and Erosion.**

## 3.6 HAZARDOUS MATERIALS AND ENVIRONMENTAL HAZARDS (INCLUDING TOXIC AND RADIOLOGICAL WASTE)

This section addresses the potential for the proposed project alternatives to result in effects associated with hazardous materials and environmental hazards (including toxic and radiological waste). Following an overview of the affected environment in **Subsection 3.6.1** and the regulatory framework in **Subsection 3.6.2**, project-related effects and recommended mitigation measures/BMPs are presented in **Subsection 3.6.3**.

### 3.6.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

#### Local Setting

The Sewer Maintenance District 3 (SMD 3) wastewater treatment plant (WWTP) is located at 4928 Auburn-Folsom Road. Proposed force main alignments, as described in **Section 2.0**, extend through the right-of-way (ROW) of Auburn-Folsom Road and Joe Rodgers Road, as well as through a Placer County (County) utility easement that extends through an area designated as “open space” in the Hidden Valley community. Miners Ravine is located immediately northwest of the WWTP site and receives the treated effluent discharged by the WWTP.

Current operations at the WWTP require the minor use and storage of the following hazardous materials: sodium hypochlorite, ferric/ferrous chloride, sodium bisulfite, Stoddard solvent (mineral spirits), diesel fuel, liquid polymer, waste oil, editic acid (EDTA), trisodium phosphate (TSP), lubricants and oils, citric acid, latex paint, nitrogen gas, methanol, and argon gases (**Figure 3.6-1**).

Biosolids (the solid waste removed from the wastewater during the treatment process) are considered a non-hazardous waste. Biosolids are treated and dried on-site, collected and then disposed directly into the Class II portion of the Western Regional Sanitary Landfill and covered immediately (Ulmer, 2012).

#### ***Sensitive Receptors***

Sensitive receptors are primarily those that have the potential to be harmed through exposure to hazardous materials. Given the liner type of construction proposed, the project alignment would have numerous sensitive receptors located along its corridor. Sensitive receptors immediately adjacent to the WWTP site and alignments include rural residential housing units, the St. Joseph Marello Catholic Church, Miners Ravine Nature Reserve, Station 19 of the South Placer Fire District, and the Glenn Brook Estates Mobile Home Park. Other sensitive receptors within a quarter-mile of the project site and alignment include the Landmark Missionary Baptist Church, Care Meridian Nursing Home, and the Granite Bay Estate Care Home.

#### ***Air Strips and Airports***

The constant circulation of air traffic in and around airports could become a safety hazard for certain land uses in the surrounding area. Aircraft accidents are most likely to occur in areas immediately surrounding the airport. Harm to life or damage to property could result from crashes and collisions during the take-off



Existing SMD 3 WWTP storage structure



Pole Mounted Electrical Transformers along Alignment

and landing of aircraft. The nearest air strip is the Cameron Airpark is located approximately 11 miles southeast of the project site. Given this distance, the project site is not located within the Cameron Airpark's area of influence (EDLAFCO, 2007).

#### ***Asbestos***

Asbestos is classified as a hazardous material when the fibers have potential to come in contact with air since the fibers are small enough to lodge in the lung tissue and cause health problems. Therefore, the presence of asbestos-containing materials (ACMs) in existing structures poses an inhalation threat only if the ACMs are found to be in a friable state. There is no inhalation hazard if the ACMs are not friable, since asbestos fibers remain attached within their material matrix. Emissions of asbestos fiber to the ambient air can occur during activities such as demolishing or renovating structures made with ACMs (e.g., insulation). These emissions are regulated in accordance with Section 112 of the Federal Clean Air Act.

A portion of the structures at the WWTP site, planned for demolition under the Proposed Project, were built before or during the 1970s when the use of asbestos was being phased out. These structures may have building materials containing asbestos (**Figure 3.6-1**). Additionally, the existing SMD 2 sewer pipeline that extends through the Hidden Valley open space area is lined with asbestos material.

#### ***Lead Paint***

The United States Environmental Protection Agency (EPA) and the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) have determined that human exposure to lead poses an adverse health risk. Specific remediation activities regulated by Federal, state, and local laws are required for demolition of structures containing lead-based paint. The use of lead as an additive to paint was discontinued in 1978; however, many of the structures planned for demolition on the WWTP site were built prior to that year and may contain lead-based paints.

#### ***Polychlorinated Biphenyls***

Prior to 1975, polychlorinated biphenyls (PCBs) were commonly used in capacitors, transformers, and fluorescent light ballasts. Manufacture of PCBs was discontinued in the U.S. in 1975 when it was made evident that PCBs were highly toxic to the environment. Older pole-mounted electrical transformers could possibly contain PCBs. Numerous pole-mounted transformers are located along the length of the project site (**Figure 3.6-1**). However, during the survey of the alignments, these transformers were observed to be in good condition and appeared to be relatively new; making it unlikely that it would contain any PCBs.

#### ***Mosquito/Vector Control***

The climate, topography, and plant communities of the Sacramento Valley provide an abundance and variety of larval mosquito habitats. The mosquito population in the Sacramento Valley is mainly active from spring through fall. Female mosquitoes require blood in order to produce eggs. Hosts which may supply blood include humans, other mammals, reptiles, amphibians, and birds. All mosquito species are potential vectors of organisms that can cause disease to humans, pets, domestic animals, and wildlife.

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The project site is located within the Placer Mosquito Abatement District (Abatement District). The Abatement District employs technicians certified by the State of California Health Services for mosquito and vector identification, as well as pesticide usage. Surveillance is routinely conducted by the Abatement District to locate mosquito breeding sources and solve mosquito problems by using biological, chemical, and physical means.

Naturally occurring biological larvicides utilized by the Abatement District include *Bacillus sphaericus* and *Bacillus thuringiensis israelensis*. Only mosquitoes, black flies, and certain midges are targeted by these bacteria, while other non-target species experience low toxicity. Chemical means used by the Abatement District include larvicidal oils and monomolecular films, which drown mosquito larvae in their non-feeding aquatic stages by forming a thin coating on the water's surface. The Abatement District also uses pyrethroids and pyrethrins for its adult mosquito control program. Pyrethrins are insecticides that are derived from an extract of chrysanthemum flowers, and pyrethroids are synthetic forms of pyrethrins. In populated areas, these are generally applied as ultra-low volume mist by truck mounted or hand held foggers (Placer MVCD, 2012).

#### ***Wildland Fires***

The California Department of Forestry and Fire Protection (Calfire) has established a fire hazard severity classification system which assess the wildland fire potential based on topography, fuel load, and climate. The project site is located in both a State Responsible Area (SRA), designated as a Moderate Fire Severity Zone (WWTP and northern portion of alignments) and within a Local Responsibility Area (LRA), designated a Non-Very High Fire Severity Zone (southern portion of alignments) (Calfire, 2008). A majority of the project alignments occur within right of ways in existing roadways, however, a segment of the Alternatives A and C force main alignments extends through an undeveloped area which contains high densities of grasslands and mature trees. Site Photos in **Figure 3.3-1** show the vegetation types found in this area of the project site.

The California Public Resources Code requires the designation of SRAs, where the financial responsibility of preventing and suppressing fires falls primarily on the State. Fire protection outside the SRA falls under the responsibility of either Federal or LRA jurisdictions. The project site is located with the southeastern boundary of the Loomis Fire Protection District (LFPD) SRA, which provides fire protection services to a population of 13,000 in the nearby town of Loomis. The LFPD also provides services to unincorporated SRAs and neighboring communities through a Closest Resource Agreement (LFPD, 2011). The closest LPD fire station is Station 28, located 3.5 miles northwest of the project site.

#### ***Project Area Database Report***

Database searches were conducted for records of known hazardous materials storage tank sites and documented sites of hazardous materials generation and/or contamination within the vicinity of the project site (**Appendix K**). The environmental database review was accomplished by using the services of the computerized search firm Environmental Data Resources, Inc. (EDR). EDR uses a geographical information system to plot locations of past and/or current hazardous materials involvement. Each documented site may be listed in multiple databases, as the databases range from severely contaminated

### 3.0 Affected Environmental and Environmental Consequences

heritage hazardous waste sites listed on the National Priority List (NPL) to Small Quantity Generators (SQG) of hazardous materials as defined in the Resource Conservation and Recovery Act (RCRA) such as dry-cleaners. As each database lists sites for different reasons, the minimum search distance for each type of site is also different. In this case the search distance used was determined using the minimum distance as defined by the American Society Testing Material (ASTM buffer) which is guided by Federal and state regulations on hazardous materials. The overview and detailed maps indicating the location of recorded hazardous materials sites are provided in **Appendix K**.

The SMD 3 WWTP is a documented site of hazardous materials involvement. A description of this site is provided below.

- The Placer County SMD 3 site (Map ID 2) is listed under four different databases:
  - The California Hazardous Materials Incident Report System (CHMIRS) lists the WWTP site as having released various amounts treated effluent with chlorine levels above permitted limitations into Miners Ravine Creek once in the year 2000, three times 2003, and once 2006. The WWTP is also listed for releasing 1,500 gallons of sewage during a spill within the WWTP. All of these incidents were the results of equipment failures, which were promptly repaired after the failures were discovered.
  - The National Pollutant Discharge Elimination System (NPDES) registers the site as having an active NPDES permit (#CA0079367) with an expiration date of 6/01/2012. The site is listed as having violated the effluent limitations set forth in the Water Discharge Requirements (WDRs) during various months in 2002, 2003, 2007, 2010, and 2011. The site is also documented for these violations in the State Water Resources Control Board's Enforcement Actions (ENF) database.
  - The Emergency Response Notification System records the site as having removed wastewater filters for maintenance in August of 2003. This resulted in a release of material into Miners Ravine; however, SMD 3 was permitted for such a release.

The EDR report did not identify any other known hazardous material storage tank sites, documented sites of hazardous materials generation, and/or documented cases of contamination within the construction area including the proposed force main alignments. The EDR report did indicate the presence of 12 documented sites within a quarter mile of the project alignment. The complete list of reviewed databases is provided in **Appendix K** and is summarized in **Table 3.6-1**.

**TABLE 3.6-1**  
ENVIRONMENTAL DATA RESOURCES (EDR) SUMMARY OF AGENCY DATABASES

Agency Database	Minimum Search Distance	Property Listed	Total Plotted
The United States Environmental Protection Agency (EPA), National Priorities List (NPL), Proposed NPL, Delisted NPL	1.0 miles	No	0
EPA, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.50 miles	No	0
EPA, CERCLIS – No Further Remedial Action Planned (NFRAP)	0.50 miles	No	0

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Agency Database	Minimum Search Distance	Property Listed	Total Plotted
EPA, National Pollutant Discharge Elimination System (NPDES)	0.50 miles	Yes	1
EPA, Resource Conservation and Recovery Information System (RCRIS) Corrective Action Reports (CORRACTS)	1.0 miles	No	0
EPA, RCRIS - for Treatment, Storage, and Disposal facilities (TSDFs)	0.50 miles	No	0
EPA, RCRIS - for Hazardous Waste Generators (large quantity generators [LQG])	0.25 miles	No	0
EPA, RCRIS - for Hazardous Waste Generators (small quantity generators [SQG])	0.25 miles	No	0
EPA, RCRIS - for Hazardous Waste Generators (conditionally exempt small quantity generators [CESQG])	0.25 miles	No	0
EPA, Engineering Controls Sites List (US ENG CONTROLS) List	0.50 miles	No	0
EPA, Sites with Institutional Controls (US INST CONTROLS) List	0.50 miles	No	0
EPA, Brownfields List (US BROWNFIELDS)	0.50 miles	No	0
United States Coast Guard, National Response Center, Emergency Response Notification System (ERNS)	Property Only	Yes	1
EPA, Facility Index System (FINDS)	Property Only	No	1
Formerly Used Defense Sites Properties (FUDS)	1.0 Mile	No	0
California Environmental Protection Agency (Cal EPA), Historic Potential Hazardous Waste (Hist Cal-Sites) Database	1.0 mile	No	0
Office of Emergency Services (OES) California Hazardous Materials Incident Report System (CHMIRS)	Property Only	Yes	7
CalEPA "Cortese" Hazardous Waste and Substances Sites List	0.50 mile	No	3
State Water Resources Control Board (SWRCB) Proposition 65 Records (Notify 65)	1.0 miles	No	0
SWRCB, Toxic Pits Cleanup Act Sites (Toxic Pits)	1.0 miles	No	0
Integrated Waste Management Board (IWMB) Solid Waste Information System (SWIS) Active, Close and Inactive State Landfills List (State Landfill)	1.0 miles	No	0
SWRCB, Waste Management Unit Database (WMUD/SWAT) State Landfill List	0.50 miles	No	4
SWRCB, Leaking Underground Storage Tank (LUST) List	0.50 miles	No	0

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Agency Database	Minimum Search Distance	Property Listed	Total Plotted
SWRCB, The Spills, Leaks, Investigations, and Cleanups (SLIC) List	0.50 miles	No	5
SWRCB, Enforcement Actions Database (ENF)	Property Only	Yes	1
California Department of Health Services, (DHS) Bond Expenditure Plan (BEP)	1.0 miles	No	0
California Department of Toxic Substance and Control (DTSC), Site Mitigation and Brownfields Reuse Program's (SMBRP's) ENVIROSTOR List	1.0 miles	No	2
DTSC, State Response Sites (RESPONSE) List	1.0 miles	No	0
DTSC, Deed Restriction Listing (DEED) List	0.50 miles	No	1
DTSC, Volunteer Cleanup Program (VCP) List	0.50 miles	No	1
Cal EPA Facility Inventory Database (CA FID UST)	0.25 mile	No	0
SWRCB, Historical UST (HIST UST)	0.25 mile	No	3
SWRCB, Statewide Environmental Evaluation and Planning System (SWEEPS UST)	0.25 mile	No	4
SWRCB, Aboveground Storage Tank (AST) List	0.25 mile	No	1
Indian LUST	0.50 miles	No	0
Indian UST	0.25 miles	No	0
Facility and Manifest Data (HAZNET)	Property Only	No	5
Source: EDR, 2012			

### 3.6.2 REGULATORY FRAMEWORK

#### Federal

#### *United States Environmental Protection Agency*

The EPA administers numerous statutes pertaining to human health and the environment. The EPA regulates toxic air contaminants through its implementation of the Clean Air Act (CAA). Although the CAA covers a range of air pollutants, Section 112(r) specifically covers “extremely hazardous materials” which include acutely toxic, extremely flammable, and highly explosive substances. Section 112(r) (referred to as the EPA’s Risk Management Program) requires facilities involved in the use or storage of extremely hazardous materials to implement a Risk Management Plan (RMP). A RMP requires a detailed analysis of potential accident factors present at a facility and requires the implementation of mitigation measures/BMPs designed to reduce the identified accident potential.

The EPA also regulates the land disposal of hazardous materials through the RCRA. Under RCRA, the EPA regulates the activities of waste generators, transporters, and handlers (any individual who treats, stores, and/or disposes of a designated hazardous waste). RCRA further requires the tracking of hazardous waste from its generation to its final disposal through a process often referred to as the

“cradle-to-grave” regulation. The “cradle-to-grave” regulation requires detailed documentation and record keeping for hazardous materials generators, transporters, and/or handlers in order to ensure proper accountability for violations.

#### ***Federal Occupational Safety and Health Administration***

OSHA regulates the preparation and enforcement of occupational health and safety regulations with the goal of providing employees a safe working environment. OSHA regulations apply to the work place and cover activities ranging from confined space entry to toxic chemical exposure. OSHA regulates workplace exposure to hazardous chemicals and activities through regulations governing work place procedures and equipment.

#### ***U.S. Department of Transportation (U.S. DOT)***

The United States Department of Transportation (USDOT) regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA, discussed previously.

#### **State**

#### ***Department of Toxic Substances Control***

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the State Hazardous Waste Control Law. Both laws impose “cradle-to-grave” regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

#### ***California Occupational Safety and Health Administration***

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing state workplace safety regulations. Because California has a Federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal/OSHA standards are generally more stringent than Federal regulations.

Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 of the CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets (MSDSs) be available to employees and that employee information and training programs be documented.

### ***California Hazardous Materials Release Response Plans and Inventory Law of 1985***

The California Hazardous Materials Release Response Plans and Inventory Law of 1985, often referred to as the Business Plan Act, requires facility operators to prepare Hazardous Materials Business Plans (HMBP). HMBPs are required to inventory hazardous materials stored and used on site, disclose the location of storage and use on site, maintain an emergency response plan, and contain provisions specifying employee training in safety and emergency response procedures. Local regulatory authorities such as local Environmental Health Departments collect hazardous Materials Business Plans.

### ***Regional Water Quality Control Board***

The State Water Resources Control Board and the Regional Water Quality Control Boards, also regulate hazardous substances, materials and wastes through a variety of state statutes including, for example, the Porter Cologne Water Quality Control Act, Cal. Water Code §13000 et seq., and the underground storage tank cleanup laws. Cal. Health and Safety Code §§25280-25299.8. Regional Boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within any region must file a report of waste discharge with the appropriate regional board. The project is located within the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB).

### ***Cortese List - Government Code Section 65962.5***

The provisions in California Government Code § 65962.5 require the California Environmental Protection Agency (CalEPA) to compile a database listing of hazardous waste facilities and other permitted activities within their jurisdiction. This database is collectively referred to as the "Cortese list." The sites for the list are designated by the State Water Resource Control Board, the Integrated Waste Board, and the Department of Toxic Substances Control. The Cortese list is updated quarterly. There are no sites identified on the Cortese List in the vicinity of the proposed pipeline alignments (EDR, 2012).

### ***California Accidental Release Program***

The California Accidental Release Program (CalARP), governed by regulations set forth in the California Health and Safety Code (Section 25531 through 25543.3), requires that a facility that stores, generates, treats, or manufactures a regulated hazardous material to develop and submit Risk Management Plans (RMPs). The RMPs must document all regulated hazardous materials, method of storage, location of storage areas, amounts present at a facility, and safety features for containing a potential release. The purpose of the CalARP is to prevent the accidental release of hazardous materials from a stationary source. The Placer Environmental Health Services Department administers the CalARP Programs within the County.

### ***Emergency Response to Hazardous Materials Incidents***

California has developed an Emergency Response Plan to coordinate emergency services provided by Federal, State, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State of California Office of Emergency Services (OES), which coordinates the responses of other agencies including CalEPA, the California Highway

Patrol (CHP), California Department of Fish and Game (CDFG), the CVRWQCB, and the Placer County Office of Emergency Services.

***Municipal Solid Waste***

The California Department of Resources Recycling and Recovery (CalRecycle) is the State-level agency within the CalEPA that oversees solid waste disposal and recycling and implements the Integrated Waste Management Act of 1989. CalRecycle issues, and in some cases enforces, regulations, policies and guidance on waste prevention and reduction, and closure. CalRecycle has promulgated detailed regulations for the closure and post closure monitoring and maintenance of municipal solid waste landfills.

**Local**

***Placer County Local Hazard Mitigation Plan***

Placer County Office of Emergency Services is responsible for maintaining the County's Local Hazard Mitigation Plan (LHMP). The most recent version of the LHMP was approved on July 13, 2010, and is currently awaiting Federal Emergency Management Agency approval. Preparation of the LHMP included a risk assessment to determine the County's vulnerability to hazards, which influenced the development of goals and mitigation actions.

***Placer County General Plan***

The Placer County General Plan was adopted on August 16, 1994 and incorporates policies regarding the safe use, manufacture, production, transportation, storage, treatment, disposal, and clean-up of hazardous materials and wastes, as well as fire protection (Placer County, 2008a). The following policies listed under the Health and Safety section of the County General Plan would apply to the project:

**Goal**

8.C To minimize the risk of loss of life, injury, and damage to property and water shed resources resulting from unwanted fires.

**Policy**

8.C.3 The County shall require that new development meets state, County, and local fire district standards for fire protection.

**Goal**

8.G To minimize the risk of loss of life, injury, serious illness, damage to property, and economic and social dislocations resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous materials wastes.

**Policies**

8.G.1 The County shall ensure that the use and disposal of hazardous materials in the County complies with local, state, and federal safety standards.

### 3.0 Affected Environmental and Environmental Consequences

- 8.G.3 The County shall review all proposed development projects that manufacture, use, or transport hazardous materials for compliance with the County's Hazardous Waste Management Plan (CHWMP).
- 8.G.5 The County shall strictly regulate the storage of hazardous materials and wastes.
- 8.G.6 The County shall require secondary containment and periodic examination for all storage of toxic materials.
- 8.G.8 The County shall require that new industries that store and process hazardous materials provide a buffer zone between the installation and the property boundaries sufficient to protect public safety. The adequacy of the buffer zone shall be determined by the County.
- 8.G.9 The County shall require that applications for discretionary development projects that will generate hazardous wastes or utilize hazardous materials include detailed information on hazardous waste reduction, recycling, and storage.
- 8.G.12 The County shall identify sites that are in appropriate for hazardous material storage, maintenance, use, and disposal facilities due to potential impacts on adjacent land uses and the surrounding natural environment.

#### ***Granite Bay Community Plan / Horseshoe Bar/Penryn Community Plan***

There are no specific goals and policies regarding hazardous materials included within the Granite Bay Community Plan or the Horseshoe Bar/Penryn Community Plan.

### **3.6.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPs**

#### **Methodology**

Potential hazardous materials and hazards impacts were analyzed through a review of the existing project site setting, project description, and risks inherent to the proposed sewer realignment process and construction methods and materials. As discussed above, methods used to characterize the existing hazardous material setting in the project site and vicinity include, but are not limited to, site visits and a review of regulatory agency database searches.

The impact analysis focused on potential effects of hazardous materials or waste associated with current and past conditions at the WWTP site and project alignments, as well as properties and associated hazards in close proximity that might have an adverse impact on the site and alignment. The evaluation was made in light of project plans, and applicable regulations and guidelines. If it was determined that implementation of the Proposed Project has the potential to meet or exceed the significance criteria listed below, mitigation measures/BMPs have been recommended to increase the compatibility and safety of the project site and to reduce impacts to less-than-significant levels.

#### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to hazardous materials have been developed based on Appendix G of the CEQA *Guidelines* and any relevant agency thresholds. For the purposes of this EA/EIR, a project would generally be considered to have a significant adverse impact to the public or the environment if it would:

- Create a significant hazard through the routine transport, use or disposal of hazardous materials.
- Create a significant hazard through reasonably foreseeable upset and accident conditions involving the release hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter miles of an existing or proposed school.
- Be listed on hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- Be located within an airport land use plan or within an area were such a plan has not been adopted, that would result in a safety hazard to people residing or working in the project area.
- Result in a safety hazard for people residing or working in the project area for a project located within the vicinity of a private airstrip.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- 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.

#### Effects Found Not to be Significant

The Initial Study (**Appendix C**) concluded that the Proposed Project is not located within an airport land use plan and would not emit hazardous materials within a quarter mile of an existing school nor result in a safety hazard for people residing or working in the vicinity of a private airstrip; therefore, further analysis of these issues within this EA/EIR is not warranted.

#### Project Specific Impacts

##### ***Construction***

##### **Impact**

- 3.6-1 Construction of the Proposed Project would include the storage and handling of hazardous materials, which could result in a public health or safety hazard from the accidental release of hazardous materials into the environment.**

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, no storage or handling of hazardous materials would occur because no new development components would be constructed at the WWTP. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

During grading and construction activities it is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. would be brought onto the WWTP site and construction staging areas. Temporary storage units (bulk above-ground storage tanks, 55-gallon drums, sheds/trailers, etc.) would likely be used by various contractors for fueling and maintenance purposes. As with any liquid and solid, the handling and transfer between one container to another has the potential for an accidental release. Construction contractors will be required to comply with applicable Federal and state environmental and workplace safety laws, including CalOSHA requirements. Adherence to these regulatory requirements would reduce the potential for accidental release of hazardous materials into the environment. Furthermore, **Mitigation Measure 3.6-1** has been recommended to further reduce the potential for accidental release by requiring the contractor to prepare an accidental-spill prevention and response plan. Construction contractors are required to implement Best Management Practices (BMPs) for the storage, use, and transportation of hazardous materials. The BMPs would be outlined within a site specific Storm Water Pollution Prevention Plan (SWPPP) that would be required as part of a National Pollution Discharge Elimination System (NPDES) General Construction Permit (General Construction Permit). Standard measures discussed in **Section 3.7** require the preparation of a SWPPP according to the General Construction Permit. Construction contractors will be required to comply with applicable Federal and state environmental and workplace safety laws, including California Occupational Health and Safety Administration requirements. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would result in similar construction activities in size and scope to Alternative A. Therefore, the amount of stored and handled hazardous materials would be similar as those described under Alternative A. With adherence to applicable Federal and state environmental and workplace safety laws, and implementation of **Mitigation Measures 3.6-1**, the potential for impacts from construction related accidental spills of hazardous materials would be less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would result in similar construction activities in size and scope to Alternative A. Therefore, the amount of stored and handled hazardous materials would be similar as those described under Alternative A. With adherence to applicable Federal and state environmental and workplace safety laws, and implementation of **Mitigation Measures 3.6-1**, the potential for impacts from construction related accidental spills of hazardous materials would be less than significant. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternatives A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.6-1: Prepare and Implement an Accidental-Spill Prevention and Response Plan.** The County shall ensure through the enforcement of contractual

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obligations that all contractors prepare and provide on-site an accidental-spill prevention and response plan. The spill prevention and response plan shall be included as a component of the Storm Water Pollution Prevention Plan prepared in accordance with **Mitigation Measure 3.7-1a**, and will include a list of all hazardous materials used and/or stored on the project site during construction activities. The plan shall additionally include appropriate information about initial spill response, containment, and cleanup strategies. Additionally, a list of appropriate County contact information will be included within the spill prevention and response plan.

The Federal reportable spill quantity for petroleum products, as defined in 40 Code of Federal Regulations [CFR] 110 is any oil spill that 1) violates applicable water quality standards, 2) causes a film or a sheen upon or discoloration of the water surface, or 3) causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines. If a spill is reportable, the contractor will notify the Placer County Environmental Health Services Department, which has spill response and cleanup ordinances to govern emergency spill response. A written description of reportable releases must be submitted to CVRWQCB. This submittal must include a description of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases will be documented on a spill report form.

If an appreciable spill has occurred and results determine that project activities have adversely affected surface or groundwater quality, the County will be responsible for ensuring that a registered environmental assessor will perform a detailed analysis to identify the likely cause of contamination. This analysis will conform to American Society for Testing and Materials standards and will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, the County or its contractors will select and implement measures to control contamination, with a performance standard that groundwater quality must be returned to baseline conditions.

#### Impact

#### **3.6-2 Construction of the Proposed Project would not be located on a site that is listed as a hazardous materials site pursuant to Government Code Section 65962.5.**

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, construction activities would not occur on the project site. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Construction of Alternative A would not occur on sites that are listed pursuant to Government Code Section 65962.5 (Cortese List). Additionally, database research included within the EDR Report (**Appendix K**) indicated that no Cortese List sites are located within the immediate vicinity

### 3.0 Affected Environmental and Environmental Consequences

of the WWTP site or the underground alignment. The EDR report does however, identify numerous *potential* sources of contamination along the proposed pipeline alignment which are not eligible to be included on the Cortese list. While there is no known contamination in the vicinity of these facilities (thus the reason these sites are not included on the Cortese list), there is always the possibility that unknown contaminated soils and/or groundwater may occur in the vicinity of such sites. The potential for hazardous material contamination to occur in the vicinity of a proposed pipeline alignment depends on the level and type of potential contamination, distance from the alignment, and elevation in comparison to the alignment. Proposed construction activities that are most likely to encounter hazardous materials include: structural and trench excavation for pipeline installation and boring and jacking of pipelines. Possible impacts that could result from encountering hazardous materials during construction include: potential exposure of workers and the public to toxic materials; further contamination of air, soil, and water; and removal and/or disposal of hazardous materials.

With implementation of **Mitigation Measure 3.6-2**, the Proposed Project would result in a less-than-significant impact. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would result in similar construction activities in size and scope to Alternative A. Therefore, the potential to encounter hazardous materials along the pipeline route would be similar as those described under Alternative A. Adherence to **Mitigation Measure 3.6-2** would ensure that this impact is less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would result in similar construction activities in size and scope to Alternative A. Therefore, the potential to encounter hazardous materials along the pipeline route would be similar as those described under Alternative A. Adherence **Mitigation Measure 3.6-2** would ensure that this impact is less than significant. **Less-Than-Significant Impact with Mitigation.**

### **Mitigation Measures/BMPs**

#### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.6-2: Supervise and Document the Evaluation, Remediation, Treatment, and/or Disposal of Hazardous Materials.** In the event that suspected hazardous materials are encountered during construction activities, all work would be halted until a professional hazardous materials specialist or an equivalent qualified individual can identify the materials. If the materials are determined to be hazardous, the materials would be remediated and/or disposed of following applicable regulatory agency regulations and/or guidelines. All evaluation, remediation, treatment and/or disposal of hazardous waste would be supervised and documented by a qualified hazardous waste specialist. All necessary precautions shall be taken to protect the health and safety of site workers, and the applicant shall prepare and adhere to a plan for workers safety following all relevant OSHA requirements.

## Impact

### 3.6-3 Decommissioning of the WWTP and demolition activities associated with the proposed project alternatives could create a significant hazard through upset and accident conditions involving the release hazardous materials into the environment.

#### ***No Project/No Action Alternative***

Under the No-Action Alternative, no demolition or construction activities would occur at the WWTP site or along underground alignments. The existing features would remain and no adverse effects would occur. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Demolition activities at the WWTP site would require the dredging, excavation, and disposal of soil/sand/sediment from the 47-foot-diameter, 16-foot-tall sand filter and from the sludge drying beds. The soil/sand/sediment in the sand filter consists of a 2.5-foot wide and 4-foot deep ring around the circumference of the sand filter, and is estimated to be approximately 55 cubic yards. The soil/sand/sediment in the sludge drying beds consists of a layer of sand, pea gravel, and gravel that is approximately 11 inches thick across the four drying beds that is estimated to consist of approximately 310 cubic yards. The soil/sand/sediment from the sand filter and drying beds will be removed from the project site and disposed of at an appropriate facility. The demolition will also include the removal of approximately 1,600 cubic yards of rock media within the trickling filter that may be used to backfill the below-ground structures. Due to the nature of use of the media in the sand filter, sludge drying beds, and the trickling filter, the potential exists for a buildup of hazardous constituents, including mercury, RCRA priority metals, and volatile organic pollutants. Improper disposal of the soil/sand/sediment could result in a potentially significant impact, and reuse of contaminated rock material from the trickling filter as fill within the project site could contaminate storm water before it percolates into the ground, potentially impacting groundwater quality. Effects to groundwater quality are discussed further in **Section 3.7, Impact 3.7-3**. Implementation of **Mitigation Measures 3.6-3a** and **b** would reduce the potential for adverse effects to less than significant by requiring preliminary screening of material removed from the sand filter, sludge drying beds, and the trickling filter to ascertain the appropriate disposal methods and determine whether the material is suitable for re-use and backfill within the WWTP site. Any contaminated soil or materials would be disposed of at a site approved for that purpose based on the results of the sampling.

The facilities on the WWTP site are at an age where ACMs and lead-based paints could be encountered. Most of the roofing materials used prior to the 1980s contained ACMs, specifically, composition shingle roofing material and acoustical ceilings. Due to the age of the existing structures on the WWTP site, it is likely that ACMs and lead-based paint would have been used in the construction of those structures. Indiscriminate and unmitigated demolition or renovation of structures containing ACMs and lead-based paint could create asbestos dust, lead paint chips and lead dust, which pose as inhalation hazards for both construction workers and the surrounding public. In addition, collection and disposal of ACMs and lead paint debris by

### 3.0 Affected Environmental and Environmental Consequences

untrained personnel could cause asbestos and lead paint dust emissions to be transported offsite, resulting in the release of hazardous material into the environment. This is considered a potentially significant impact. Implementation of **Mitigation Measure 3.6-3c** would reduce the potential for adverse effects by requiring compliance with Placer County Air Pollution Control District special provisions for structures containing ACMs, as well as Placer County Department of Health and Human Services (DHHS) recommendations and Cal/OSHA requirements for lead-containing painted surfaces. Therefore, after mitigation, impacts would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Alternative B would result in similar demolition activities as Alternative A. The potential impacts from ACMs, lead based paints, and soil contamination would be similar as those described under Alternative A. Therefore, after implementation of **Mitigation Measures 3.6-3a, 3.6-3b, and 3.6-3c** impacts would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would result in similar demolition activities as Alternative A. The potential impacts from ACMs, lead based paints, and soil contamination would be similar as those described under Alternative A. Additionally, under Alternative C, a portion of SMD 2 pipeline would be upgraded with new larger capacity pipelines. Due to the age of this pipeline, the potential exists that it contains ACMs. Therefore, mitigation is proposed similar to that included for demolition on the WWTP site. After implementation of **Mitigation Measures 3.6-3a, 3.6-3b, and 3.6-3c**, impacts would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

### **Mitigation Measures/BMPs**

#### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.6-3a: Conduct Soil Sampling Prior to Excavation within the Sand Filter, Sludge Drying Beds, and Trickling Filter to Determine Presence of Hazardous Materials.** Prior to construction activities involving material removal within the sand filter, sludge drying beds, and trickling filter, soil sampling must be performed by the County to test for the presence of mercury, RCRA priority metals, and volatile organic pollutant levels that exceed California Office of Environmental Health Hazard Assessment (OEHHA) soil screening levels (OEHHA, 2010) and the subsequent need for the County to dispose of the materials as hazardous materials. Samples shall be analyzed based upon OEHHA soil screening levels.

**Mitigation Measure 3.6-3b: Implement Mitigation Measure 3.6-2 - Supervise and Document the Evaluation, Remediation, Treatment, and/or Disposal of Hazardous Materials.** Should the result of soil sampling indicate the presence of hazardous materials, the County shall implement **Mitigation Measure 3.6-2** to supervise and document the evaluation, remediation, treatment, and/or disposal of hazardous materials.

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Any contaminated soil or materials would be disposed of at a site approved for that purpose based on the results of the sampling. Uncontaminated soil and materials may be utilized as fill material on the WWTP site.

**Mitigation Measure 3.6-3c: Perform an Asbestos Survey prior to Demolition of Structures.** Prior to demolition of WWTP structures and removal of any segments of the SMD 3 pipeline, the County shall hire a Certified Asbestos Consultant (CAC) to perform an asbestos survey (Alternative C only) to determine if ACMs and lead-based paints are present in building materials. If the results of the asbestos survey indicate ACMs and/or lead-based paint are present within the structures that will be demolished, then the County shall require through contractual obligations that the following mitigation measure will be implemented:

- All construction activities shall comply with all requirements and regulations promulgated through the PCAPCD Asbestos Dust Mitigation Plan. These provisions focus on limiting the emission of asbestos to the atmosphere and require an appropriate waste disposal procedure.
- Construction activities involving the demolition of structures containing lead based paints shall conform to DHHS recommendations and Cal/OSHA requirements. Recommendations could include construction BMPs such as applying water to the structures and pipelines before, during, and after demolition.

#### Impact

**3.6-4 Construction activities conducted during the dry season in and around dry grasses pose a fire hazard. This would be a potentially significant impact.**

#### ***No Project/No Action Alternative***

Under the No-Action Alternative, no potential for construction-related fire hazards would occur because the project would not be constructed. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

The WWTP site and northern portion of the proposed alignment located in an area designated as a State Responsibility Area. The area was designated as a Moderate Fire Severity Zone (MFHSZ) by the California Department of Forestry and Fire Protection (Calfire). The southern portion of the alignment is located within a local responsibility area, designated by Calfire as a Non Very High Fire Hazard Severity Zone (Calfire, 2008). Dry vegetation within the WWTP boundaries and within or adjacent to the force main construction corridor may pose a fire hazard during construction activities. Equipment used during grading and construction activities may create sparks, which could ignite dry grass on the project site. During construction, the use of power tools and acetylene torches may also increase the risk of fire hazard. This risk, similar to that found at other construction sites, is considered potentially significant. Implementation of recommended **Mitigation Measure 3.6-4** would reduce potential impacts to less than significant. **Less-Than-Significant Impact with Mitigation.**

***Alternative B Road Right-of-Way Alignment***

Alternative B would also result in similar construction activities in size and scope to Alternatives A; however, the entire pipeline would be constructed along the Auburn-Folsom and Joe Rodgers ROW. Although the entire alignment proposed under Alternative B would be located within the existing WWTP site and along existing roadways, due to the construction activities proposed, Alternative B would represent a risk of fire hazards similar as those described under Alternative A. **Mitigation Measure 3.6-4** would decrease the potential for impacts from fire hazards during construction. **Less-Than-Significant Impact with Mitigation.**

***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would result in similar construction activities in size and scope to Alternative B; however, approximately 900 feet of the existing SMD 2 gravity sewer located between MH F15-13 and MH F15-16 would need to be upsized to a 15-inch diameter force main under Alternative B. Alternative C would represent a risk of fire hazards similar as those described under Alternative A. **Mitigation Measure 3.6-4** would decrease the potential for impacts from fire hazards during construction. **Less-Than-Significant Impact with Mitigation.**

**Mitigation Measures/BMPs**

***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.6-4: Implement Fire Hazard Control BMPs during Construction.** The County shall ensure through contractual obligations that the following BMPs are implemented during construction:

- During construction, staging areas, welding areas, or areas slated for use of spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break.
- Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

**Impact**

**3.6-5 Construction activities have the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

***No Project/No Action Alternative***

The No-Action Alternative would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan because no construction or demolition activities would occur at the WWTP site or along the proposed alignments. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Pipelines would be installed in trenches dug within existing roadways, or attached to structures to cross existing creeks or streams. Installation of pipelines would require temporary road closure or lane reductions. Encroachment permits are required for such work to occur. Permits will be obtained from the County. These permits are designed to protect the public by providing a system of notification to providers of emergency or other important services of road closures. Compliance with these requirements minimizes the safety and health hazards associated with construction activities. Alternative A would not impair implementation of or physically interfere with an adopted emergency response plans or emergency evacuation plans. Potential traffic impacts are discussed further in the Traffic/Transportation section. This impact is considered less than significant. **Less-Than-Significant Impact.**

***Alternative B Road Right-of-Way Alignment***

Alternative B would result in similar construction activities as Alternative A, with the addition of 5,300 more linear feet of construction within the right-of-way of Auburn-Folsom Road between the intersection of Twin Rocks Road and MH F15-19 during Phase I. Potential impacts to emergency response from temporary road closures and lane reductions would be avoided through the enforcement of encroachment permits designed to protect the public by providing a system of notification to providers of emergency or other important services. The decommissioning of the WWTP, the development of the pump station, and the construction of the pipeline alignment proposed under Alternative B would not impair implementation of or physically interfere with an adopted emergency response plans or emergency evacuation plans. This impact is considered less than significant. **Less-Than-Significant Impact.**

***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would result in similar construction activities in size and scope to Alternative B. Therefore, the potential impacts to adopted emergency response plans and emergency evacuation plans would be similar as those described under Alternative B. The decommissioning of the WWTP, the development of the pump station, and the construction of the pipeline alignment proposed under Alternative C would not impair implementation of or physically interfere with an adopted emergency response plans or emergency evacuation plans. This impact is considered less than significant. **Less-Than-Significant Impact.**

***Operation***

**Impact**

**3.6-6 Operation of the Proposed Project would involve the use and bulk storage of hazardous materials.**

***No Project/No Action Alternative***

Under the No-Action Alternative, only the current amount of hazardous materials would be stored at the SMD 3 WWTP because the project would not be constructed. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Hazardous materials currently used at the SMD 3 WWTP site include chemicals for wastewater treatment, maintenance, laboratory tests, fuel, and solvents. The amount and use of hazardous materials that would occur with operation of the Proposed Project would be less extensive than the materials used for the existing WWTP processes. All training, safety, and emergency response provisions would remain in effect and apply to all phases of the Proposed Project. The use of such materials during construction would be considered minimal and would not require these materials to be stored in bulk form. Since hazardous materials will not be stored in bulk form, no impacts are expected regarding potential upset and accidental conditions involving the release of hazardous materials into the environment. As such, the project would not create a significant hazard to the public through the routine use, transport, or disposal of hazardous materials. **Less-Than-Significant Impact.**

***Alternative B Road Right-of-Way Alignment***

Under Alternative B, the amount of hazardous materials stored on the WWTP site and along the pipeline route during construction would be identical to those described under Alternative A. Therefore, this impact is less than significant. **Less-Than-Significant Impact.**

***Alternative C Hidden Valley Pipe Upsizing***

Under Alternative C, the amount of hazardous materials stored on the WWTP site and along the pipeline route during construction would be identical to those described under Alternative A. Therefore, this impact is less than significant. **Less-Than-Significant Impact.**

**Cumulative Impacts**

**Impact**

**3.6-7 The Proposed Project in combination with future growth and development in the project vicinity could result in cumulative effects associated with environmental hazards and hazardous materials.**

***No Project/No Action Alternative***

Under the No-Action Alternative, the SMD 3 WWTP would not be decommissioned, and the proposed sewer force main and associated components would not be constructed. Therefore, no impacts would occur in respect to cumulative effects associated with environmental hazards and hazardous materials. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

If unmitigated, construction and operation of the Proposed Project in combination with potential cumulative development in the project vicinity could lead to impacts related to hazards and hazardous materials. The Proposed Project and related projects in the cumulative year, would all

### 3.0 Affected Environmental and Environmental Consequences

involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction activities. Impacts related to these activities are extensively regulated by various Federal, state, and local agencies and it is assumed that related projects would also comply with these hazardous materials regulations.

Hazard related impacts are site specific (e.g., have the potential to affect only a limited area). These hazards require implementation of project specific mitigation measures to reduce the potential for adverse impacts to a less than significant level. Reduction of on-site hazard-related impacts, as discussed above, would ensure that construction activities would not result in impacts that would be cumulatively considerable.

Operation of the Proposed Project and cumulative development projects could result in impacts if development were to result in potential exposure of hazardous materials to sensitive individuals or the general public-at-large, or if additional projects in the vicinity were to include the use or storage of hazardous materials. Because hazardous materials impacts are site specific and the Proposed Project would not include land uses that utilize or require substantial volumes of hazardous materials, the project would not contribute to cumulatively considerable hazardous impacts. **Mitigation Measure 3.6-7** would ensure that cumulatively considerable impacts would not occur. Therefore, this impact is considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Under Alternative B, the same potential for cumulative effects associated with environmental hazards and hazardous materials are likely to occur. Implementation of **Mitigation Measure 3.6-7** would ensure that cumulatively considerable impacts would not occur. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Under Alternative C, the same potential for cumulative effects associated with environmental hazards and hazardous materials are likely to occur. Implementation of **Mitigation Measure 3.6-7** would ensure that cumulatively considerable impacts would not occur. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.6-7: Implement Project Specific Mitigation for Hazardous Materials.** Implement **Mitigation Measures 3.6-1** through **3.6-4**.

## 3.7 HYDROLOGY AND WATER QUALITY

### 3.7.1 AFFECTED ENVIRONMENT/ ENVIRONMENTAL SETTING

#### Surface Water

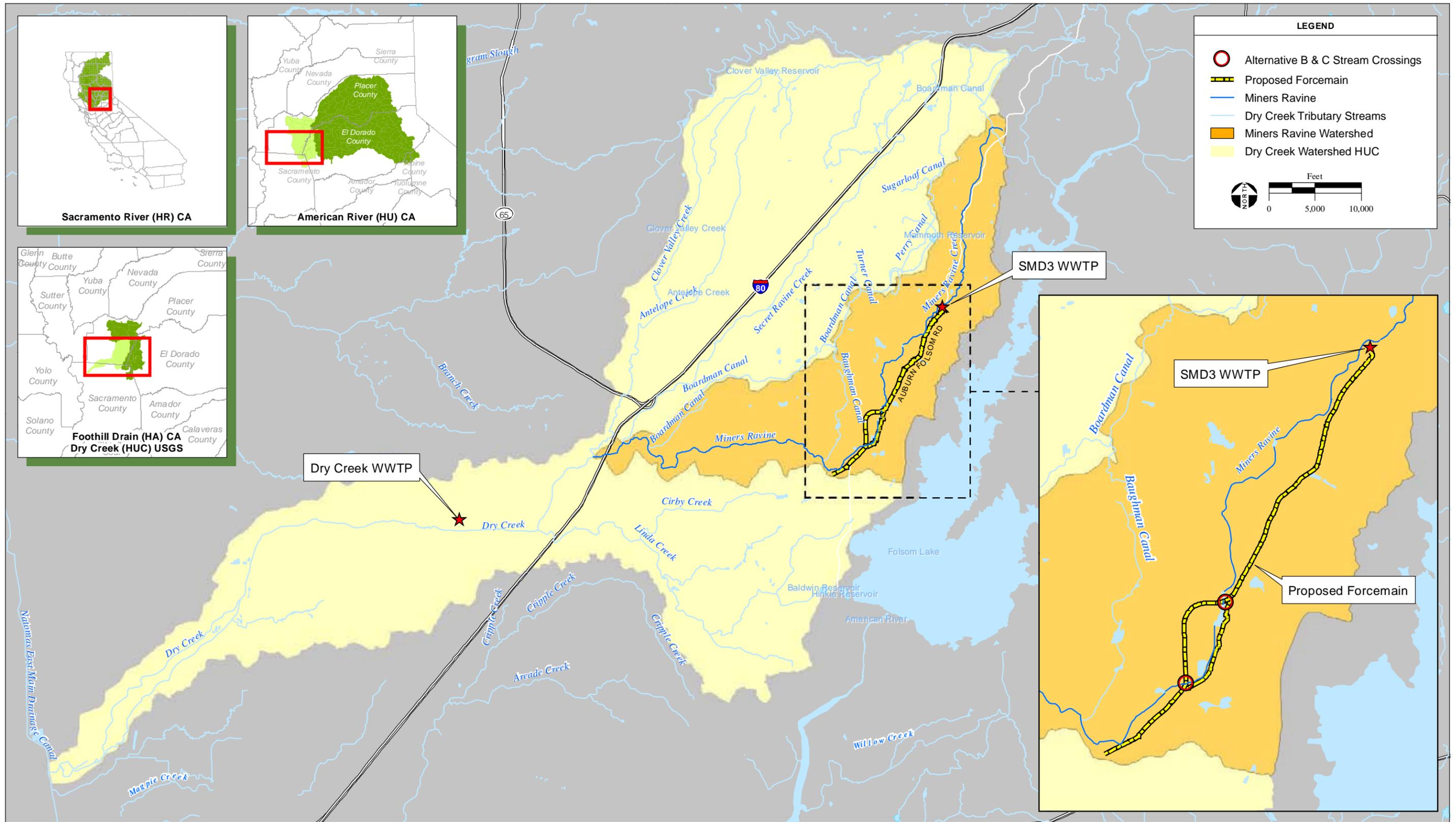
##### *Regional Setting*

As shown in **Figure 3.7-1**, the project area lies within the Sacramento River Hydraulic Region. The Sacramento River Hydraulic Region covers approximately 17.4 million acres (27,200 square miles). The region includes all or large portions of Modoc, Siskiyou, Lassen, Shasta, Tehama, Glenn, Plumas, Butte, Colusa, Sutter, Yuba, Sierra, Nevada, Placer, Sacramento, El Dorado, Yolo, Solano, Lake, and Napa counties. Small areas of Alpine and Amador counties are also within the region. Geographically, the region extends south from the Modoc Plateau and Cascade Range at the Oregon border to the Sacramento-San Joaquin Delta (Delta). The Sacramento Valley, which forms the core of the region, is bounded to the east by the crest of the Sierra Nevada and southern Cascades and to the west by the crest of the Coast Range and Klamath Mountains. Other significant features include major river systems such as the Sacramento River, the longest river system in California. Major tributaries of the Sacramento River system include the Putah Creek, the American River, Cache Creek, the Feather River with its major tributaries Bear River and Yuba River, and Butte, Deer, Mill, Battle, Cottonwood, and Cow creeks (DWR, 2009).

##### *Local Setting*

The Sewer Maintenance District 3 (SMD 3) wastewater treatment plant (WWTP) and the proposed pipeline alignments are located along Miners Ravine. Miners Ravine is located in the American River hydrologic unit (hu), the Foothill Drain hydrologic area (ha), the Secret Ravine super planning watershed (spws), and within the Secret Ravine planning watershed (pws). Miners Ravine is one of four main tributary drainages (Clover Valley Creek, Antelope Creek, and Secret Ravine) which comprise the headwaters of Dry Creek, all of which are located in Placer County. Dry Creek is a tributary of the Sacramento River via the Natomas East Main Drainage Canal which confluences with the Sacramento River approximately one half mile upstream from the mouth of the American River. The portion of western Placer County that encompasses the Dry Creek watershed ranges between 25 feet and 930 feet in elevation and receives between 18 and 27.5 inches of mean annual precipitation (Cal Fire, 2012), the majority of which occurs between December and March.

Within the Dry Creek watershed, Miners Ravine flows for approximately 15.65 miles (26.07 kilometers) and the watershed drains approximately 20 square miles. The headwaters for Miners Ravine are in the western foothills of the Sierra Nevada's just south of Newcastle, at approximately 930 feet mean sea level (msl) in elevation. Miners Ravine is a perennial, ungauged stream that is highly responsive to precipitation. As such, the majority of peak flows generally occur during the winter and spring months following significant rainfall as Miner's Ravine does not receive snowmelt runoff. In addition, springs and urban runoff contribute to summertime flows in the system (Swanson 1992, Bishop 1997).



As discussed in detail within the Hydrologic Study included as **Appendix I**, background flow data collected in Miners Ravine approximately 150 feet upstream from the WWTP's point of discharge (R1 weir) from December 2000 through December 2011 indicates a range of flows between 0.155 cubic-feet per second (cfs) and greater than 16.5 cfs with a mean of 5.46 cfs depending on seasonality.

#### ***Flooding***

The Federal Emergency Management Agency (FEMA) oversees the delineation of flood zones and the provision of Federal disaster assistance. FEMA manages the National Flood Insurance Program (NFIP) and publishes the Flood Insurance Rate Maps (FIRMs), which show the expected frequency and severity of flooding by area, typically for the existing land use and type of drainage/flood control facilities present. Flood zones are determined by the probability of flooding within a certain time period, such as a 100-year or 500-year flood event. Floodplains are divided into flood hazard zones, designated by the potential for flooding of an area during a flood event. Flood zones shaded and unshaded X may include those areas that are located within the 100-year flood plain but are adequately protected by levee systems, while Zone A, AE, and AO are designated as areas inundated by a 100-year storm event.

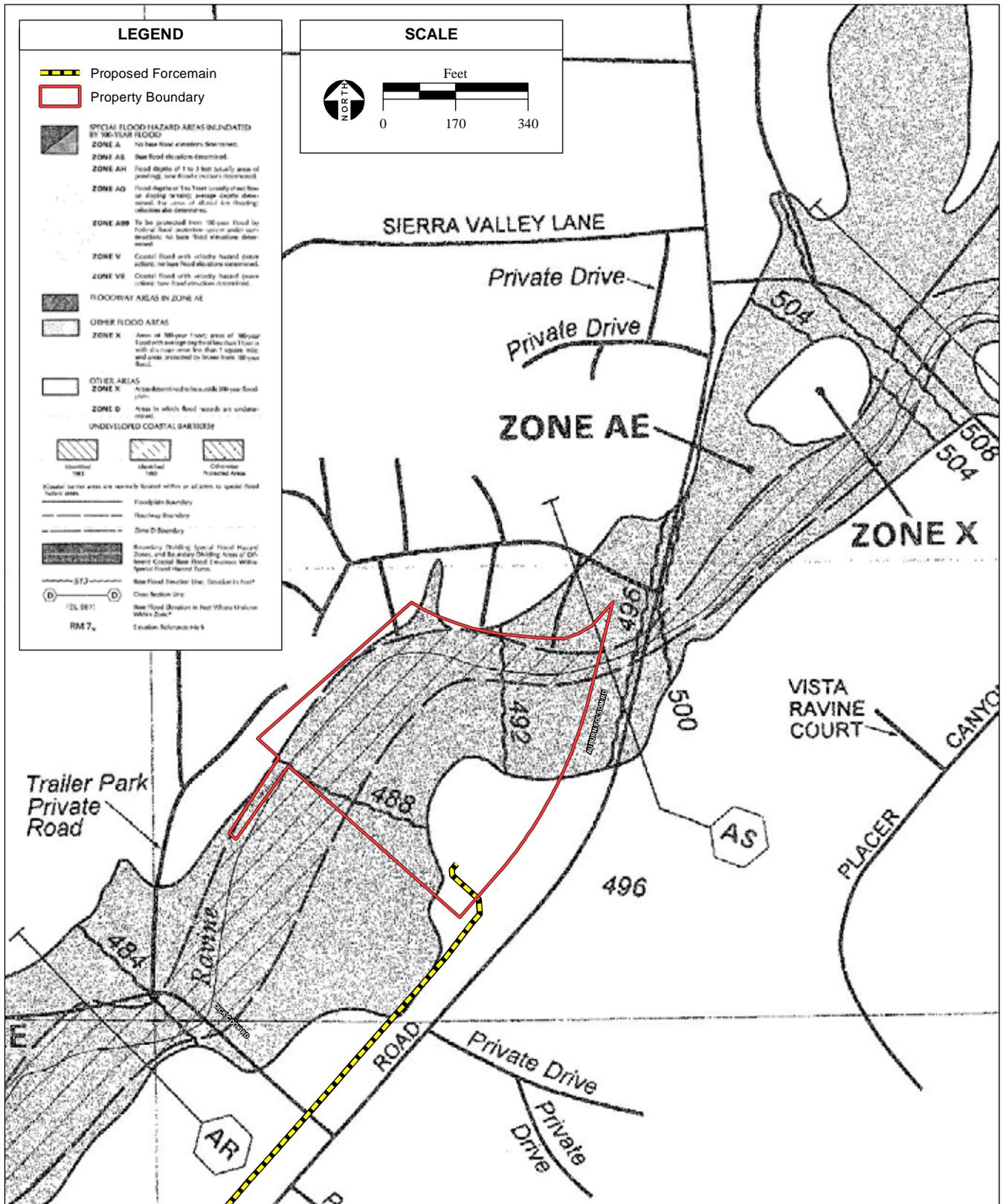
The SMD 3 WWTP site is located on FIRM number 06061C0419 G. As shown in **Figure 3.7-2**, the majority of the SMD 3 WWTP site is located in an area designated is Zone AE by FEMA (shaded grey). Zone AE is defined as "the base floodplain where base flood elevations are provided" (FEMA, 2012). Base flood elevations on the SMD 3 WWTP site range from 488 to 492 feet above sea level. The southeastern portion of the SMD 3 WWTP site is located in an area designated as Zone X (no shading). Zone X is defined as "area(s) determined to be outside the 0.2 percent annual chance floodplain," (FEMA, 2012). The proposed pipeline alignments extend through areas designated as Zone X and Zone AE along Miners Ravine. Appropriate base flood elevations have been established along the Miners Ravine floodplain.

#### ***Drainage and Storm Water***

As described above, regional drainage of the Proposed Project area is provided by the Dry Creek watershed which discharges into the Sacramento River via the Natomas East Main Drainage Canal. Storm water run-off within the SMD 3 WWTP site is self-contained and is directed to the headworks for treatment prior to discharge into Miners Ravine. A drainage swale that enters the SMD 3 WWTP site from Auburn-Folsom Road is currently routed off-site. No storm water from the SMD 3 WWTP site drains to this drainage swale. The proposed pipeline alignments encounter numerous surface drainage ditches, swales and natural drainage pathways that lead to Miners Ravine. These drainages are located predominantly along Auburn-Folsom Road and convey stormwater both directly and indirectly to Miners Ravine.

#### ***Surface Water Quality***

Beneficial uses and water quality objectives of Miners Ravine and Dry Creek are not individually identified in the Basin Plan; however, because these waterways are tributary to the Sacramento River, the Regional



SOURCE: FEMA Firmette Data, 11/21/2001, USGS 7.5 Minute Topographic Quadrangle; Brown & Caldwell, 2012; AES, 2012

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**Figure 3.7-2**  
FEMA Flood Zones

### 3.0 Affected Environmental and Environmental Consequences

Water Quality Control Board (RWQCB) found that the beneficial uses identified in the Basin Plan for the Sacramento River (from the Colusa Basin to the I Street Bridge) are applicable to these waterways (National Pollutant Discharge Elimination System (NPDES) Permits CA0079367 and CA0079502). Beneficial uses identified for the Sacramento River (from the Colusa Basin to the I Street Bridge) include municipal and domestic supply (MUN), agricultural irrigation (AGR), water contact recreation (REC-1) and non-contact water recreation (REC-2), warm (WARM) and cold (COLD) freshwater habitat, warm and cold water migration habitat (MIGR), warm and cold water spawning (SPWN), wildlife habitat (WILD), and navigation (NAV).

Natomas East Main Drainage Canal, Sacramento River (Knights Landing to the Delta), and the Northern Portion of the Delta Waterways are listed as impaired under the Clean Water Act 303(d) list. **Table 3.7-1** lists the impairments and, if available, the Total Maximum Daily Loads (TMDLs) for each impaired waterway. TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards. For TMDLs that have not been established, **Table 3.7-1** lists the anticipated date for establishment of TMDL by DWR.

As shown in **Table 3.7-1**, TMDLs have only been approved for Chlorpyrifos and Diazinon for the Northern portion of the Delta Waterways. **Table 3.7-2** lists the maximum concentration and averaging period applicable to the Delta Waterways for these impairments.

**TABLE 3.7-1**  
LIST OF 303(D) LISTED IMPAIRED WATER BODIES DOWNSTREAM OF THE PROJECT AREA

Water body	Impairment	Anticipated Date for Establishment of TMDL by EPA	EPA TMDL Approval Date
Natomas East Main Drainage Canal	Diazinon	2008	-
	Mercury	2021	-
	PCBs (Polychlorinated biphenyls)	2020	-
Sacramento River (Knights Landing to the Delta)	Chlordane	2021	-
	DDT (Dichlorodiphenyltrichloroethane)	2021	-
	Dieldrin	2022	-
	Mercury	2012	-
	PCBs (Polychlorinated biphenyls)	2021	-
	Unknown Toxicity	2019	-
Delta Waterways (northern portion)	Chlordane	2011	-
	Chlorpyrifos	-	10/10/2007
	DDT (Dichlorodiphenyltrichloroethane)	2011	-
	Diazinon	-	10/10/2007
	Dieldrin	2011	-
	Group A Pesticides	2019	-
	Invasive Species	2009	-
	Mercury	2019	-
	PCBs (Polychlorinated biphenyls)	2019	-
	Unknown Toxicity	2019	-

Source: DWR, 2010

### 3.0 Affected Environmental and Environmental Consequences

**TABLE 3.7-2**  
SPECIFIC PESTICIDE OBJECTIVES FOR DELTA WATERWAYS (NORTHERN PORTION)

Pesticide	Maximum Concentration and Averaging Period
Chlorpyrifos	0.025 µg/L ; 1-hour average (acute) 0.015 µg/L ; 4-day average (chronic) Not to be exceeded more than once in a three year period.
Diazinon	0.16 µg/L ; 1-hour average (acute) 0.10 µg/L ; 4-day average (chronic) Not to be exceeded more than once in a three year period.
Source: CVRWQCB, 2006	

## Groundwater

### *Regional Setting*

The Dry Creek watershed lies above the Sacramento Valley Groundwater Basin, North American Subbasin (Groundwater Basin Number 5-21.64). The North American Subbasin encompasses approximately 351,000 acres and is bound by Bear River to the north, Feather River to the west, and the Sacramento River to the south. The eastern boundary is a north-south line extending from the Bear River south to Folsom Lake, which passes about two miles east of the City of Lincoln. The eastern boundary represents the approximate edge of the alluvial basin, where little or no groundwater flows into or out of the groundwater basin from the rock of the Sierra Nevada. The project area lies just northeast of this eastern border (DWR, 2006).

The general direction of drainage within the subbasin is west-southwest at an average grade of approximately five percent. The aquifer thickness increases from a few hundred feet near the Sierra Nevada foothills on the east to over 2,000 feet along the western margin of the subbasin. Most of the groundwater is produced in the northern portion of the subbasin. The aquifer zones in the upper 200 to 300 feet of this portion of the subbasin appear to be unconfined and behave similarly to stresses imposed on them. Conversely deeper zones show a delayed response to stresses in the upper zone, indicating possibly limited interconnection with the shallower zones (DWR, 2006).

The North American Subbasin has an estimated storage capacity of approximately 4.9 million acre-feet. Estimated inflows include natural recharge at 83,800 acre-feet and applied water recharge at 29,800 acre-feet; there is no artificial recharge. Estimated outflows include urban extraction at 109,900 acre-feet and agricultural extraction at 289,100 acre-feet. Groundwater levels in southwestern Placer County have generally decreased, with many wells experiencing declines at a rate of about one and one-half feet per year for the last 40 years or more (DWR, 2006).

#### **Local Setting**

Based on the Geotechnical Report completed by Blackburn Consulting, the proposed alignment alternatives are underlain by fractured rock at relatively shallow depths. In the area, groundwater is typically encountered above the soil/rock interface, as perched groundwater, and within rock fractures. Perched groundwater is more likely to occur in the flatter, low-lying areas and within and adjacent to drainages, particularly during and shortly following periods of wet weather. The depth and lateral extent of groundwater within rock fractures is typically very erratic and its location cannot be accurately estimated on a regional basis or, quite frequently, on a local basis. Groundwater was observed within boring and test pits excavated along the proposed alignment alternatives (Blackburn Consulting, 2012).

Groundwater was observed during the drilling of 13 out of 22 boring holes and the excavation of 7 of the 11 test pits. When present, depth to groundwater ranged from 2.0 to 9.0 feet below ground surface. Groundwater observations were not possible below approximately 10-feet below ground surface in several of the borings because groundwater, if present, was indistinguishable from drilling fluids utilized.

#### **Groundwater Quality**

Most of the basin has good water quality; however, localized portions may have marginal water quality due to natural variability in the aquifer. Specifically elevated levels of total dissolved solids (TDS)/ specific conductance, chloride, sodium, bicarbonate, boron, fluoride, nitrate, iron manganese, and arsenic may be of concern in some locations within the subbasin (DWR, 2006).

The Basin Plan has designated beneficial uses of groundwater resources in the region as municipal and domestic supply (MUN), agricultural supply (AGR), industrial process supply (PRO), and industrial service supply (IND). Based on these beneficial uses, the Basin Plan established the groundwater limitations, summarized below. The groundwater objectives contained in the Basin Plan do not require the improvement over naturally occurring background concentrations (CVRWQCB, 2011)

- Bacteria – The most probable number of coliform organisms over any seven-day period shall be less than 2.2/100 ml.
- Chemical Constituents – Groundwater shall not contain concentrations of inorganic chemicals, fluoride, organic chemicals, or secondary maximum contaminants in excess of the maximum contaminant levels (MCLs) specified in applicable provisions of Title 22 of the California Code of Regulations. Groundwater shall not contain lead in excess of 0.015 mg/l.
- Radioactivity – Groundwater shall not contain concentrations of radionuclides in excess of the MCLs specified in Title 22 of the California Code of Regulations.
- Tastes and Odors – Groundwater shall not contain taste- or odor- producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
- Toxicity – Groundwater shall be maintained free of toxic substances in concentrations that produce detrimental physiologic responses in human, plant, animal, or aquatic life associated with designated beneficial uses. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.

#### Dry Creek WWTP NPDES Permit Ground Water Monitoring

In accordance with the Dry Creek WWTP NPDES Permit NO. CA0079502, groundwater quality is monitored via three monitoring wells. The results of monitoring for each parameter are reported to the Regional Water Quality Control Board (RWQCB) monthly, quarterly, or yearly depending on the minimum sampling frequency required by the NPDES Permit. If monitoring of the groundwater indicates that the discharge has caused an increase in constituent concentrations, when compared to background, the City of Roseville is required by the NPDES Permit to conduct a study of the extent of groundwater degradation. The groundwater parameters which are monitored are listed below:

- Depth to Groundwater;
- Groundwater Elevation;
- pH;
- Electrical Conductivity;
- TDS;
- Arsenic;
- Nitrate;
- Total Coliform Organisms;
- Metals; and
- Volatile and Semi-Volatile Organics.

#### SMD 3 WWTP Groundwater Monitoring

Storage facilities at the SMD 3 WWTP are concrete lined and percolation ponds are not utilized for the disposal of treated effluent; therefore, groundwater monitoring is not required under the applicable NPDES permit (NPDES No. CA0079367).

### 3.7.2 REGULATORY FRAMEWORK

#### Relevant Plans and Policies

##### *Federal*

##### **Clean Water Act**

The Clean Water Act (CWA) (33 USC § 1251-1376), as amended by the Water Quality Act of 1987, is the major Federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Important sections of the Act are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 (Water Quality Certification) requires an applicant for any Federal permit that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act.
- Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the SWRCB and is discussed in detail below.

### 3.0 Affected Environmental and Environmental Consequences

- Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA).

#### *Federal Anti-degradation Policy*

The Federal Anti-degradation Policy is part of the Clean Water Act (Section 303(d)) and is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that includes the following primary provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

#### **Safe Drinking Water Act**

Under the Safe Drinking Water Act (SDWA) (Public Law 93-523), passed in 1974, EPA regulates contaminants of concern to domestic water supply. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary MCLs. MCLs and the process for setting these standards are reviewed triennially. Amendments to the SDWA enacted in 1986 established an accelerated schedule for setting drinking water MCLs.

#### **Federal Emergency Management Agency**

Placer County participates in the National Flood Insurance Program (NFIP), a Federal program administered by the FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 adopted a desired level of protection that would protect developments from floodwater damage associated with an Intermediate Regional Flood (IRF), a flood which is defined as a flood having an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year.

FEMA prohibits encroachment and construction activities within the adopted regulatory floodway including fill, new construction, substantial improvements, and other development, unless through hydrologic and hydraulic analyses (H&H), the proposed encroachment would not result in any increase in flood levels (FEMA, 2010).

#### **State**

##### **Porter-Cologne Water Quality Act**

The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) provides the basis for water quality regulation within California. The Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial

### 3.0 Affected Environmental and Environmental Consequences

use of surface or groundwater of the state. The Central Valley Regional Water Quality Control Board (CVRWQCB) implements waste discharge requirements identified in the Report.

#### **State Water Resources Control Board and Regional Water Quality Control Board**

The SWRCB administers water rights, water pollution control, and water quality functions throughout the state, while the Regional Water Quality Control Boards conduct planning, permitting, and enforcement activities. The Proposed Project area lies within the jurisdiction of the CVRWQCB.

#### **Water Quality Control Plan for the Sacramento River and San Joaquin River Basins**

The CVRWQCB uses planning, permitting, and enforcement authorities to meet this responsibility, and has adopted the Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins (CVRWQCB, 2007) to implement plans, policies, and provisions for water quality management. The Basin Plan was prepared in compliance with the Federal CWA and the State Porter-Cologne Water Quality Control Act. The Basin Plan establishes beneficial uses for major surface waters and their tributaries, water quality objectives that are intended to protect the beneficial uses, and implementation programs to meet stated objectives.

#### **NPDES Program - Construction Activity**

The NPDES program regulates municipal and industrial storm water discharges under the requirements of the CWA. California is authorized to implement a state industrial storm water discharge permitting program, with the SWRCB as the permitting agency. This permit regulates discharges from construction sites and Linear Underground Projects (LUPs) that disturb one acre or more of total land area. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance must comply with the provisions of this NPDES Construction General permit. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP). The project applicant must submit a Notice of Intent to the SWRCB to be covered by a NPDES permit and prepare the SWPPP prior to the beginning of construction. The SWPPP must include BMPs to reduce pollutants and any more stringent controls necessary to meet water quality standards. Dischargers must also comply with water quality objectives as defined in the Central Valley Basin Plan. If Basin Plan objectives are exceeded, corrective measures would be required.

Implementation of the SWPPP starts with the commencement of construction and continues through completion of the project. Upon completion of the project, the applicant must submit a Notice of Termination to the SWRCB to indicate that construction is completed.

#### **California Toxics Rule**

In May 2000, the State Water Board adopted, and EPA approved, the California Toxics Rule (CTR), which establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The State Water Board subsequently adopted its State Implementation Policy (SIP) of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries. The SIP outlines procedures for NPDES permitting for toxic pollutant objectives that have been adopted in Basin Plans and in the CTR.

### **Local**

#### **Placer County Code**

Chapter 15 of the Placer County Code provides regulations for building and development within the County. The purpose and intent of Article 15.52 Flood Damage Prevention Regulations is to promote public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The Placer County Flood Damage Prevention Ordinance (Section 15.52.160) states that if a portion of a lot is situated in a special flood hazard area (i.e., the one hundred (100) year floodplain) and another portion of the lot is outside of the one hundred (100) year floodplain, and there is a feasible building site on this latter portion, including grading and associated construction, then the structure, grading and associated construction shall be located outside of the special flood hazard area.

### **3.7.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPs**

#### **Methodology**

This section identifies any impacts to hydrology and water quality that could occur from construction, operation, and/or maintenance of the proposed project alternatives as determined in the Initial Study (**Appendix C**). An examination of the project site, project components, and published information regarding the water resources in the project area was conducted to determine impacts to hydrology and water quality. Where it was concluded that impacts to hydrology and water quality resulting from the proposed project alternatives would exceed the significance thresholds listed below, mitigation measures/BMPs have been recommended to reduce impacts to less-than-significant levels.

#### **Thresholds/Basis of Significance**

Criteria for determining the significance of impacts to hydrology and water quality have been developed based on Appendix G of the CEQA *Guidelines*, SPWA's Regional Wastewater and Recycled Water Systems Evaluation Report Initial Study Checklist, and relevant agency thresholds. For the purposes of this EA/EIR, an impact to hydrology and water quality would be considered significant if the Proposed Project alternative would:

- Violate any water quality standards or waste discharge requirements;
- 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);
- 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 that would result in substantial erosion or siltation on- or off-site;

### 3.0 Affected Environmental and Environmental Consequences

- 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;
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- 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;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam;
- Inundation by seiche, tsunami, or mudflow;
- Increase the currently allocated treated wastewater discharge documented in the 1996 Wastewater Master Plan EIR, or otherwise substantially degrade water quality, or increase or result in alteration of discharges from the regional wastewater treatment facilities; or
- Place within a 100-year flood hazard area wastewater conveyance and/or recycled water storage and distribution infrastructure and facilities which would impede or redirect flood flows.

#### Effects Found Not to be Significant

The Initial Study (**Appendix C**) concluded that the Proposed Action would not impact groundwater levels; place housing within a 100-year flood hazard area; expose people or structures to a significant risk of loss, injury, or death involving flooding; or be subject to inundation by seiche, tsunami, or mudflows. These effects are, therefore, not considered within this EA/EIR.

#### Project Specific Impacts

##### *Construction Impacts*

##### Impact

- 3.7-1 Construction activities associated with the project could potentially result in substantially degraded water quality.**

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, no construction-related erosion or associated sedimentation of nearby surface waterways would occur because the project would not be constructed. The existing water quality condition due to discharge into Miners Ravine would remain the same. No additional impacts are expected. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Construction of the Proposed Project would temporarily result in soil disturbance, soil compaction within proposed access roads and construction staging areas, disruption of soil cohesion, and increased soil exposure to weather conditions, which would increase the short-term potential for wind and water erosion. Increased wind and water erosion and associated downstream

### 3.0 Affected Environmental and Environmental Consequences

sedimentation within nearby surface waterways would occur if any soils were left exposed during periods of high precipitation. The susceptibility of soils to erosion is discussed in **Section 3.5**.

Under Alternative A, the force main would be constructed within the Auburn-Folsom Road and Joe Rodgers Road ROW, as well as through an open space area and Willow Lane. Approximately 18,100 linear feet (3.5 miles) of construction would take place within the road ROW, and 4,950 feet (.9 miles) would occur within the open space area requiring linear trenching, excavation, and vegetation removal adjacent to Miners Ravine riparian habitat. Construction-related activities such as trenching, excavating, and compacting soils have the potential to result in increased erosion and short-term sedimentation of nearby surface waterways. The majority of excavation and backfill is anticipated to occur along the pipeline alignment where the trench must be closed at the end of each work day, so excavated soils will be briefly stockpiled next to the trench and then backfilled the same day. This is considered a potentially significant impact. In compliance with the Clean Water Act (CWA), the County would obtain a California State Water Resources Control Board (SWRCB) NPDES General Construction Permit (2009-0009-DWQ) for construction activities and implement BMPs during construction to prevent impacts to water quality (see **Mitigation Measure 3.7-1a**). The General Construction Permit also includes post-construction performance standards requiring all construction sites match pre-project hydrology to ensure that the physical and biological integrity of aquatic ecosystems are sustained. Additionally, the Proposed Project is subject to Chapter 15.48 Placer County Code: Grading Erosion, and Sediment Control Ordinance; therefore, Improvement/Grading Plans will be submitted to the Placer County Engineering and Surveying Department for review and approval.

Due to the relatively shallow groundwater which exists along a significant portion of the project alignment, it is highly likely that groundwater will be encountered during excavation of the below ground components of the Proposed Project. During construction, unauthorized or accidental release of any fuel, hydraulic fluids, lubricants, solvents, or other chemical into the excavation cavity could directly enter the groundwater aquifer. Implementation of **Mitigation Measure 3.7-1a** would also minimize the potential for the contamination of groundwater during construction.

As determined within the Geotechnical Report completed by Blackburn Consulting, isolated sump pumping will be required for localized seepage into excavations with the exceptions of the following locations where more extensive dewatering (such as diversion, dewatering wells, and/or additional sumps) may be required depending on groundwater elevation at the time of excavation: existing sewer easement adjacent to Miners Ravine – Itchy Acres Road to Twin Rocks Road, Auburn-Folsom Road at Miners Ravine, and SMD 3 WWTP site. Encountered groundwater would be disposed of in accordance with the requirements of the CWA and applicable regulations intended to protect water quality.

With implementation of the proposed mitigation/BMPs and compliance with the requirements included in the NPDES General Construction Permit, impacts to surface water and groundwater quality from construction activities would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Construction activities under Alternative B would be similar to Alternative A; however, the location of the force main alignment would differ. Under Alternative B, the force main would be constructed entirely within the Auburn-Folsom Road and Joe Rodgers Road ROW, and would consist of approximately 23,250 LF of pipeline installation. Alternative B would not involve construction through Willow Lane and the open space area; however, it would be approximately 200 feet longer than the Proposed Project and would require two pipeline crossings of Miners Ravine. As discussed in **Section 2.4.3**, construction methods for installing the force main under Miners Ravine would either involve using jack and bore tunneling or directional drilling to avoid disturbing surface soils. Frac-outs can occur during directional drilling when drill lubricant (typically bentonite) travels from the bore hole through subterranean fractures to the surface. Implementation of **Mitigation Measure 3.7-1b** would reduce potential impacts to water quality from a potential frac-out to a less-than-significant level.

Construction-related activities under Alternative B have the potential to result in short-term sedimentation of nearby surface waterways and contamination of groundwater. This is considered a potentially significant impact. In compliance with the CWA, the County would obtain a NPDES General Construction Permit for construction activities and implement certain BMPs during construction (**see Mitigation Measure 3.7-1a**). Implementation of **Mitigation Measure 3.7-1a** would minimize the potential for the contamination of groundwater during construction. With implementation of the proposed mitigation/BMPs and compliance with the requirements included in the NPDES General Construction Permit, impacts to surface water and groundwater quality from construction activities under Alternative B would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative B; however project phasing would differ such that Phase I would include upgrading 900 feet of the existing SMD 2 sewer system between MH F15-13 and MH F15-16 directly adjacent to Miners Ravine riparian habitat. Upsizing the existing pipeline would require trenching to a depth of 15 to 20 feet below ground surface, below the level of the creek. This alternative would require linear trenching, excavation, vegetation removal and substantial dewatering (due to the depth of excavation) near riparian habitat adjacent to Miners Ravine. This would result in a greater potential for erosion and sedimentation within nearby surface waterways than Alternative B.

Construction-related activities under Alternative C have the potential to result in short-term sedimentation of nearby surface waterways and contamination of groundwater. This is considered a potentially significant impact. In compliance with the CWA, the County would obtain a NPDES General Construction Permit for construction activities and implement certain BMPs during construction to protect surface and groundwater quality (**see Mitigation Measure 3.7-1a**). In compliance with **Mitigation Measure 3.7-1b**, a spill prevention and frac-out contingency plan would be implemented to prevent impacts to water quality from directional drilling under Miners Ravine. With implementation of the proposed mitigation/BMPs and compliance with the

requirements included in the NPDES General Construction Permit, impacts to surface water and groundwater quality from construction activities under Alternative C would be considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

###### **Mitigation Measure 3.7-1a: Obtain Coverage Under the SWRCB NPDES General Permit and Implement Water Quality BMPs to Prevent Sedimentation and Erosion.**

The County shall comply with the SWRCB NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit), Adopted Order 2009-0009-DWQ. The SWRCB requires that all construction sites have adequate control measures to reduce the discharge of sediment and other pollutants to streams to ensure compliance with Sections 303 and 402 of the Clean Water Act. In addition, the General Construction Permit includes post-construction performance standards requiring all construction sites match pre-project hydraulic conditions. To comply with the NPDES permit, the County will file a Notice of Intent with the SWRCB on the SMARTS system and prepare a Storm Water Pollution Prevention Plan (SWPPP) prior to construction, which includes a detailed, site-specific listing of the potential sources of stormwater pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills through preparation of an Accidental Spill Prevention and Response Plan – refer to **Mitigation Measure 3.6-1**); a description of the type and location of erosion and sediment control BMPs to be implemented at the project site; and a BMP monitoring and maintenance schedule to determine the amount of pollutants leaving the Proposed Project site. A copy of the SWPPP must be current and remain on the project site. Control measures are required prior to and throughout the rainy season. Water quality BMPs identified in the SWPPP could include but are not limited to the following:

- Areas where ground disturbance would occur shall be identified in advance of construction and limited to only approved areas.
- All vehicular construction traffic shall be confined to the designated access routes and staging areas. See **Figure 2-3** for the locations of potential staging areas. Access routes will be located within 20 feet of either side of the proposed force main alignment shown in **Figures 2-2, 2-4 and 2-5**.
- All equipment maintenance and cleaning shall be confined to staging areas. Staging areas utilized for equipment maintenance and cleaning shall be located a minimum of 50 feet from streams and waterways.
- All supervisory construction personnel shall be informed of environmental concerns, permit conditions, and final project specifications.
- Restore disturbed areas to pre-construction contours to the fullest extent possible.
- Hay/straw bales and silt fences would be used to control erosion during stormwater runoff events.
- Salvage, store, and use the highest quality soil for native re-vegetation/seeding.

### 3.0 Affected Environmental and Environmental Consequences

- Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff.
- Sediment control measures shall be in place prior to the onset of the rainy season and will be maintained until disturbed areas have been re-vegetated. Erosion control structures must be in place and operational at the end of each day if work activities are to occur during the rainy season.
- Fiber rolls shall be placed along the perimeter of disturbed areas to ensure sediment and other potential contaminants of concern are not transported off-site or to open trenches. Locations of fiber rolls will be field adjusted as needed and according to the advice of the certified SWPPP inspector.
- Vehicles and equipment stored in the construction staging area shall be inspected regularly for signs of leakage. Leak-prone equipment will be staged over an impervious surface or other suitable means will be provided to ensure containment of any leaks. Vehicle/equipment wash waters or solvents will not be discharged to surface waters or drainage areas.
- During the USEPA identified rainy season, soil stockpiles and material stockpiles will be covered and protected from the wind and precipitation. Plastic sheeting will be used to cover the stockpiles and straw wattles will be placed at the base for perimeter control.
- All contractors shall immediately control the source of any leak and immediately contain any spill utilizing appropriate spill containment and countermeasures. All leaks and spills shall be reported to the designated representative of the lead contractor and shall be evaluated to determine if the spill or leak meets mandatory SWPPP reporting requirements. Contaminated media shall be collected and disposed of at an off-site facility approved to accept such media.

#### ***Alternative B and Alternative C***

**Mitigation Measure 3.7-1b: Prepare and Implement a Spill Prevention and Frac-out Contingency Plan.** The County shall prepare a Spill Prevention and Frac-out Contingency Plan to ensure that measures are in place to monitor, identify, prevent and, if necessary, contain and remediate any acute effects caused from directional drilling under Miners Ravine. This Spill Prevention and Frac-out Contingency Plan will include an action plan for containment of slurry from directional drilling operations in the instance that a frac-out occurs in Miners Ravine and will identify which local, state and Federal agencies to notify. At a minimum, the plan shall include the following:

- Identification of riparian and environmentally sensitive areas and design protocols to protect these areas.
- General procedures for effective management of spill response with geographic boundaries of the Plan, including identification of responsible project personnel and timely detection of frac-outs.
- Barriers (straw bales or sedimentation fences) will be erected between the bore site and the nearby sensitive resources prior to drilling, as appropriate, to prevent released material from reaching the resource.

- Specific spill response procedures that provide guidance for response planning and operations, including the proper use and storage of specialized containment equipment.
- Insurance that proper notification is made to appropriate parties within 24 hours and that documentation of frac-out is completed.
- Monitoring for the duration of the drilling activities by a qualified biologist.

#### ***Operational Impacts***

##### **Impact**

#### **3.7-2 Operation of the Proposed Project could potentially violate surface water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality or instream flows.**

##### ***No Project/No Action Alternative***

The WWTP would continue to discharge treated effluent to Miners Ravine. Because the WWTP was not designed to meet future waste discharge requirements established by CVRWQCB, the discharge would exceed the water quality limitations established at the discharge point to protect the beneficial uses of downstream waters. As described above, beneficial uses for Miners Ravine are derived from those identified in the Basin Plan for the Sacramento River (from the Colusa Basin to the I Street Bridge), of which Miners Ravine is a tributary, and include municipal and domestic supply, agricultural irrigation, water contact recreation and non-contact water recreation, warm and cold freshwater habitat, warm and cold water migration habitat, warm and cold water spawning, wildlife habitat, and navigation. This alternative would be inconsistent with designated beneficial uses of Miner Ravine as identified by the CVRWQCB in the Basin Plan (CVRWQCB, 2011). **Significant and Unavoidable Impact.**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

The proposed project alternatives would result in the decommissioning the SMD 3 WWTP, and constructing a pump station and force main to convey wastewater flows to the regional Dry Creek WWTP.

Currently, the SMD 3 WWTP facility consists of a primary clarifier, trickling filter, secondary clarifier, denitrifying filtration (tertiary treatment and nitrate removal), chlorination, and dechlorination. The SMD 3 facility is not anticipated to be able to cost effectively and consistently comply with current and anticipated discharge standards. The Proposed Project will result in the conveyance of wastewater influent that is currently treated at the SMD 3 WWTP facility to the Dry Creek WWTP, where the treatment process uses best available technology (BAT) and can accommodate the capacity for increased future flows. The removal of effluent currently being discharged from the SMD 3 WWTP is anticipated to improve water quality downstream of the current SMD 3 discharge point in Miners Ravine. Further, because Miners Ravine is a tributary to Dry Creek, improvements to water quality from elimination of the SMD 3 discharge are anticipated to have an overall beneficial effect on the Dry Creek watershed downstream of the confluence of Miners Ravine and Dry Creek.

### 3.0 Affected Environmental and Environmental Consequences

The wastewater treatment system at the Dry Creek WWTP consists of mechanically cleaned bar screens, grit chambers, primary clarification, secondary treatment consisting of nitrification and denitrification, aeration, and secondary clarification. Tertiary treatment is provided by chemical coagulation with organic polymers, followed by filtration, chlorination, dechlorination with sulfur dioxide, pH adjustment, and cascade aeration. Wastewater transferred to the Dry Creek WWTP as a result of the Proposed Project would be treated and discharged to Dry Creek in accordance with the City of Roseville's existing NPDES discharge permit issued by the CVRWQCB.

The increased flow from SMD 3 to the Dry Creek WWTP will not increase downstream flows within Dry Creek as the discharge from SMD 3 will be removed from the upper Dry Creek watershed and reintroduced lower into the same watershed where year round flows are higher and the dilution of effluent flows is greater. The ADWF for Phase I (0.16 million gallons per day [mgd]) and Phase II (0.25 mgd) of the proposed project alternatives accounts for only 0.88 and 1.38 percent, respectively, of the Dry Creek WWTP capacity (18 mgd). Moving the point of discharge of treated effluent from the SMD 3 service area to Dry Creek, where a higher mean annual discharge volume occurs, would functionally decrease the concentrations of constituents of concern regulated by the CVRWQCB, therefore increasing the overall water quality of the Dry Creek watershed as well as at the current discharge point in Miners Ravine. As a result of the Proposed Project, wastewater collected in the SMD 3 service area would be subject to a higher level of treatment technology prior to discharge to the Dry Creek watershed. Impacts to the overall water quality in Miner's Ravine and extending to Dry Creek, the Sacramento River, and the Delta as a result of implementation of the Proposed Project are considered beneficial.

**Beneficial Impact.**

#### 3.7-3 Operation of the Proposed Project could potentially degrade groundwater quality.

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, no changes to existing operations within the SMD 3 site would occur and, therefore, no changes to groundwater quality would occur. **No Impact.**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

Existing water-bearing structures at the WWTP site would either be demolished and removed from the site or punctured to provide a passive drain to prevent standing water from accumulating. Approximately 1,600 cubic yards of rock removed from the bio-trickling filter may be used to backfill the below-ground structures. Contact with the inner lining of the water-bearing structures and/or crushed rock could contaminate storm water before it percolates into the ground, potentially contaminating groundwater. However, as described in **Section 2.4**, prior to demolishing or puncturing the water-bearing structures and utilizing the filter medium for backfill, these facilities would be decontaminated using a pressure washer and cleaning fluid would be routed to the pump station for treatment and disposal at the Dry Creek WWTP; therefore, stormwater coming into contact with decommissioned and/or re-purposed facilities would not be contaminated. Percolation through the soil would provide further filtration of stormwater, preventing contaminants from entering the groundwater basin. In addition, **Mitigation Measure 3.7-3** requires soil sampling and characterization to ensure that only uncontaminated soil and materials shall be used as fill materials

on the WWTP site, and any material determined not to meet California Office of Environmental Health Hazard Assessment standards will be removed and disposed of at an appropriately permitted facility. Impacts to groundwater quality as a result of stormwater percolation through decommissioned water bearing structures are considered less than significant with mitigation. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.7-3: Implement Mitigation Measure 3.6-3a, Conduct Soil Sampling Prior to Excavation within the Sand Filter/Bioretention Basin to Determine Presence of Hazardous Materials, and Mitigation Measure 3.6-3b, Supervise and Document the Evaluation, Remediation, Treatment, and/or Disposal of Hazardous Materials.**

#### **3.7-4 The Proposed Project could alter the rate and quantity of stormwater run-off from the project site, which could affect surface water quality.**

##### ***No Project/No Action Alternative***

Under the No Action Alternative, no changes to existing drainage patterns and run-off rates would occur. **No Impact.**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

The proposed project would not increase stormwater run-off rates over existing conditions or substantially alter drainage patterns at the WWTP site and along the force main routes. The majority of the proposed force main would be constructed within existing roadways that have been developed to account for regional drainage considerations. All pipelines will be located underground and all surfaces will be graded to existing elevations after construction is completed. No modification of existing drainage channels will be made. For these reasons, the installation of the proposed force main under each alternative would not alter existing drainage patterns or increase stormwater run-off rates.

Project plans currently call for demolition of existing structures at the WWTP that have impervious surfaces contributing to surface runoff. In the event they are not demolished, the existing water-bearing structures would be punctured to provide a passive drain to prevent standing water from accumulating. Additionally, the proposed gravel access road within the site would not be paved and thus would allow for stormwater percolation. Both the demolition and perforation of impervious services, as well as the use of pervious surfaces for vehicle access and parking, are considered low impact development (LID) stormwater controls which are recommended by the EPA.

The proposed pump station is the only project feature that would result in the introduction of a new impervious surface at the site. The pump station will result in the addition of 950 square feet of impervious surfaces to the SMD 3 WWTP site, increasing the runoff in that localized area. Some of the stormwater run-off would be routed to the pump station for transfer and treatment at the

Dry Creek WWTP. A County standard rip-rap outfall structure will be provided at the drainage discharge point from the proposed equipment pad. Storm water control will consist of a trench that collects the runoff from the impervious surface that filters the runoff through the use of rock or native vegetation. The existing drainage swale at the pump station site which collects runoff from Auburn-Folsom Road will be routed around the pump station and will discharge at the same point it currently discharges (as discussed in **Section 3.3**, this man-made drainage ditch lacks a hydrological connection to Miners Ravine, and thus is not considered a waters of the U.S). As discussed in **Section 2.4.1**, Placer County General Construction Specifications along with those from the County's Land Development Manual and applicable land use ordinances will be incorporated into the project design, where appropriate.

LID project components, including the demolition/puncturing of the structures at the WWTP, would offset the small increase in impervious surfaces at the site from development of the pump station. Therefore, storm water run-off rates at the WWTP site would not be altered from pre-project conditions. Impacts to water quality from post-construction stormwater run-off are considered less than significant. **Less-Than-Significant Impact.**

**3.7-5 The project would result in construction within a 100-year flood hazard area which could potentially impede or redirect flood flows.**

***No Project/No Action Alternative***

Under the No Action Alternative, no new structures would be developed within the 100-year flood hazard area; therefore, there would be no impact to existing flood flows. The Placer County General Plan Flood Protection Policy 4.F.11 states that to the extent funding is available, the County shall work to solve flood control problems in areas where existing development has encroached into a floodplain. The majority of the existing SMD 3 WWTP structures are currently located within the 100-year flood plain (**Figure 3.7-2**). Under the No Action Alternative, all of the existing structures of the WWTP will remain within the flood plain. While the No-Action Alternative would not further the intent of the County's General Plan Policy 4F.11, no new structures would be developed within the 100-year flood hazard area; therefore, there would be no impact to existing flood flows. This is considered a less-than-significant impact. **Less-Than-Significant Impact.**

***Alternative A Proposed Project, Alternative B, and Alternative C***

**Figure 3.7-1** and **Figure 2-1** illustrate the flood plain designations within the WWTP site. As shown in **Figure 2-1**, the proposed location of the pump station is outside of the 100-year flood plain. Construction of the proposed pump station on the existing WWTP site would not impede or redirect flood flows. During decommissioning of the WWTP, various structures within the flood plain of the site would be re-purposed to provide emergency storage and, to the extent funding is available, all above-ground structures that are not being modified for future use would be removed from the site in accordance with Placer County General Plan Flood Protection Policy 4.F.11. A minimum of 1,160 cubic yards (maximum of 2,800 cubic yards) of material will be removed from the Miners Ravine flood plain through the demolition of existing structures at the SMD 3 WWTP. The re-purposing of the various WWTP structures, or abandonment of structures

in place should funding not be available for demolition, would not impede or redirect flood flows on the WWTP site.

The majority of the proposed pipeline would be constructed within existing roadways that have been developed to account for regional drainage considerations. All pipelines will be located underground and all surfaces will be graded to existing elevations after construction is completed. No modification of existing drainage channels will be made. For these reasons, the installation of the proposed force main would not impede or redirect flood flows. **Less-Than-Significant Impact.**

## Cumulative Impacts

### Impact

#### **3.7-6 The Proposed Project in combination with future growth and development within the County could result in cumulative impacts to hydrology and water quality.**

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, no construction-related erosion or associated sedimentation of nearby surface waterways would occur because the project would not be constructed. Therefore, the No Project Alternative would not contribute to cumulative effects associated with sedimentation from construction activities. However, the No Action Alternative would result in continued discharge of effluent to Miners Ravine that does not meet the WDR limitation set by the CVRWQCB to protect beneficial uses within the Sacramento River watershed, and therefore, would contribute to cumulative effects to water quality. **Significant and Unavoidable Cumulative Impact.**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

The Proposed Project and potential cumulative WWTP projects in the vicinity of the project site, including growth resulting from build-out of the County's General Plan, would be required to comply with the general NPDES permit of the SWRCB, which is intended to reduce the potential for cumulative impacts to water quality during construction. Cumulatively considerable projects that would discharge stormwater runoff would be required to comply with NPDES discharge permits from the CVRWQCB and would be subject to subsequent environmental review. Therefore, impacts associated with cumulative construction related to water quality effects would be less than significant.

During operation, the Proposed Project would provide environmental benefits for wildlife, fish, and humans by improving water quality within Miners Ravine and the Dry Creek watershed. Other future cumulative wastewater treatment projects described in Section 3.0 are also expected to improve surface water quality in the region through the decommissioning of facilities that are not able to meet RWQCB standards and the transfer of effluent to facilities with best available treatment technology prior to discharging to surface waterways. The Proposed Project and other future wastewater treatment upgrade projects in the region would contribute to beneficial cumulative effects to water quality in the Sacramento River watershed. The Proposed Project,

### 3.0 Affected Environmental and Environmental Consequences

when considered with other potential development in the area, would not result in adverse cumulative impacts to surface water quality or groundwater supplies and quality.

Each of the cumulative development projects to be constructed in the future and the Proposed Project would be subject to local, state, and Federal regulations designed to minimize cumulative impacts. Mitigation measures/BMPs for the Proposed Project in combination with compliance with County, state, and Federal regulations, are expected to reduce potential cumulative impacts to hydrology and water quality to a less than significant level. **Less-Than-Significant Impact.**

## 3.8 LAND USE, PLANNING, AND COMMUNITY EFFECTS

This section addresses the potential for land use impacts and evaluates the consistency between the proposed project alternatives and the Placer County General Plan, Zoning Ordinance, and applicable Community Plans. Following an overview of the existing land uses in **Subsection 3.8.1** and the relevant regulatory setting in **Subsection 3.8.2**, project-related impacts and recommended mitigation measures/BMPs are presented in **Subsection 3.8.3**.

### 3.8.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

#### Regional Setting

The proposed project area is located within Placer County (County), which consists of approximately 1,407 square miles in the Sacramento Valley and Sierra Nevada regions of northern California (U.S. Census Bureau, 2010a). General land use designations within the County include: Agriculture; Timberland; Resource Protection, Greenbelt, Open Space, and Recreation; Rural Residential; and Urban (Placer County, 2008a). The majority of eastern Placer County is composed of Timberland designated areas, whereas western Placer County is composed primarily of Agriculture, Urban, and Rural Residential designated areas.

#### Local Setting

The proposed project area is located in an unincorporated area in southwestern Placer County, south and east of Interstate 80, and west of Folsom Lake. The location of the existing SMD 3 Wastewater Treatment Plant (WWTP) and proposed pumping station is located approximately 5.5 miles east of the City of Rocklin, 3.6 miles southeast of the town of Loomis, and approximately 0.15 miles northeast of the Dick Cook Road and Auburn Folsom Road intersection. As described in **Section 2.0**, the proposed force main will extend southwest from the WWTP, primarily located within the Auburn Folsom Road and Joe Rodgers Road right-of-way (ROW), as well as through County easements located within private property designated as “open space” and Willow Lane.

Land use designations for unincorporated areas within the County are determined by the Placer County General Plan, Placer County Code, and applicable community plans. Based on Placer County zoning maps, the existing SMD 3 WWTP is located in an Open Space zone district. The proposed force main would be constructed within County ROWs or easements that extend through Residential-Single Family/Agriculture, Residential-Agriculture/Building Site, and Open Space zone districts. Allowable land uses under each of these zoning designations are defined in Chapter 17 of the Placer County Zoning Ordinance. Allowable land uses in the Open Space zone district include low intensity agricultural and public recreational uses, and protection of open space (Placer County Zoning Ordinance 17.14.010). Public utility facilities are considered an allowable land use with a Minor Use permit (MUP) (Placer County Zoning Ordinance 17.06.50). In Residential-Single Family/Agriculture districts, allowable land uses include detached single-family dwellings, limited service uses, recreational and education uses, and agricultural-type uses (Placer County Zoning Ordinance 17.48.010 and 17.52.020). Lastly, the Residential-Agriculture/Building Site zoning designation allows single-family residential and agricultural type uses, service uses, roadside stands for agricultural products, and varying parcel sizes and special setbacks (Placer County Zoning Ordinance 17.44.010 and 17.52.040).

Lands surrounding the proposed project area also fall within these zoning and land use designations. Existing land uses surrounding the proposed project area primarily consist of low density residential, commercial development, and recreation areas (recreation is discussed further in **Section 3.10**).

The proposed project area extends through the boundaries of two community plans: Horseshoe Bar/Penryn Community Plan (Placer County, 2005) and the Granite Bay Community Plan (Placer County, 2012). Each plan contains specific goals and policies relating to land use, which are discussed below in **Section 3.8.2**.

#### ***Project Site Land Uses***

The SMD 3 WWTP is currently located, on an 8.2-acre County-owned property at 4928 Auburn Folsom Road. This site is bordered by the Glenn Brooks Estates mobile home park to the north and west, Auburn Folsom Road to the east, and undeveloped land to the south and southwest. The Auburn Folsom Road and Joe Rodgers Road ROWs, where the force main will be located, are surrounded on both sides by undeveloped land, and light residential and commercial development. Miners Ravine borders the existing WWTP to the north and west, creating a buffer of riparian vegetation between the WWTP and the mobile home park, and extends along the west side of Auburn Folsom Road. The force main alignment under Alternative A would extend through a privately owned area designated as "open space". Land uses adjacent to this segment of the proposed force main consist of undeveloped land, Miners Ravine riparian habitat (which parallels the alignment to the west), and the backyards of homes within the Hidden Valley subdivision located between approximately 150 to 1,000 feet to the east and west.

### **3.8.2 REGULATORY FRAMEWORK**

#### **Relevant Plans and Policies**

Applicable goals and policies of the Placer County General Plan, Horseshoe Bar/Penryn Community Plan, and Granite Bay Community Plan relating to land use in unincorporated areas of Placer County are discussed below.

#### ***Placer County General Plan***

The Placer County General Plan provides a comprehensive framework for land use and development in unincorporated Placer County (Placer County, 2008a). The following policies listed under the Land Use section of the County General Plan would apply to the project:

#### **Goal**

- 1.F To designate adequately-sized, well-located areas for the development of public facilities to serve both community and regional needs.

#### **Policies**

- 1.F.3 The County shall require public facilities, such as wells, pumps, tanks, and yards, to be located and designed so that noise, light, odors, and appearance do not adversely affect nearby land uses.

#### ***Placer County Conservation Plan***

The Placer County Conservation Plan is a proposed joint Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) with goals of developing a framework to protect, enhance, and restore the natural resources in western Placer County and streamlining the permitting of covered activities (Placer County, 2011). The PCCP covers approximately 212,000 acres in western Placer County, including the proposed project area, which is designated as a Potential Future Growth area.

#### ***Horseshoe Bar/Penryn Community Plan***

The land use goals and policies of the Horseshoe Bar/Penryn Community Plan are intended to enhance the rural and natural qualities of the community, prevent the overuse of land, and to control the intensity of use (Placer County, 2005). Within the Horseshoe Bar/Penryn Community Plan area, construction activities would take place entirely within a County-owned property zoned as Open Space. The Open Space land use designation is intended to protect important open space lands within Placer County by limiting allowable land uses to low intensity agricultural and public recreational uses, with structural development being restricted to accessory structures necessary to support the primary allowed uses, and critical public facilities. Within the Open Space zoning and land use designations, pipelines and transmission lines are considered allowable land uses and public utility facilities are considered an allowable land use with a MUP permit. The following goals and policies are relevant and applicable to the proposed project alternatives.

#### **Goals: Community Development Element – Land Use**

- c. Preserve and protect the natural waterways, riparian and wetland areas, and the floodplains.
- f. Maintain compatibility between neighboring land uses.
- g. Ensure adequate allocation of land use designations for public facilities (i.e. schools, parks) at a level necessary to meet the needs of existing and future residents.
- m. Assure that all building sites and residences are developed in a manner minimizing disturbance to natural terrain and vegetation and maximizing preservation of natural beauty and open space.

#### **Policies**

- a. Property shall be developed with minimum disturbance to the natural terrain. The natural environment shall be retained or restored as much as possible.
- c. Individual sites shall be landscaped attractively so as to integrate - the entire development visually with the overall natural qualities of the planning area. Appropriately landscaped buffer areas of adequate size shall be provided to shield adjacent residential developments from commercial or industrial activities. Residential areas shall be protected from noise, unsightliness, odor, and other nuisances. Indigenous materials shall be used where practical.
- d. Population densities within the planning area should be guided by considerations of topography, geology, vegetative cover, preservation of natural terrain and resources, and access to transportation and service facilities.

### 3.0 Affected Environmental and Environmental Consequences

- e. Intensity of use of individual parcels and buildings shall be governed by considerations of: health and safety, impact on adjoining properties due to noise, traffic, night lighting, or other potentially disturbing conditions; and protection of natural land characteristics. Visibility of structures, preservation of natural landform and natural resources, topography, noise exposure, maintenance of rural quality, and compatibility with to the surrounding properties, shall be considered in preparing subdivision designs. Subdivision density, or number of lots, will ultimately be determined by these factors. It is recognized that the maximum number of lots permitted by the land use or zoning' designations may not be realized once these factors are considered.
- i. The rate of development and location of projects shall not exceed the capacity of the community, special districts and utility companies to provide all needed services and facilities in an orderly and economic manner.
- n. Site specific floodplain studies by qualified professionals should be required prior to any new development adjoining such areas. The approximate 100-year floodplain designation for Secret Ravine, Miner's Ravine, Morman Ravine, Antelope Creek and its tributaries based on fully developed upstream conditions, shall be revised and modified as additional information becomes available, or as changes occur in the watershed which cause changes in the flow characteristics.

#### **Granite Bay Community Plan**

The Granite Bay Community Plan implements land use goals and policies by categorizing the community by land type and appropriate land use designations (Placer County, 2012). Within the Granite Bay Community Plan Area, the proposed force main alternative alignments would extend through lands with the following land use designations: Rural Residential, Rural Estate, Rural Low Density Residential, Low Density Residential and Open Space. The Rural Residential land use designation allows for the operation and preservation of rural and agricultural uses. The Rural Estate land use designation serves a similar purpose in allowing rural and agricultural uses. The Rural-Low Density Residential designation is intended to allow smaller 20,000 square foot lots and/or rural size parcels of 2.3 acres in residential areas. The Low-Density Residential designation includes urban residential areas suitable for single-family residential neighborhoods. The Open Space land use designation is intended to identify and protect important, publicly owned, open space lands.

The following goals and policies provide guidelines for conservation, development and use of land and other resources in the Granite Bay area.

#### **General Community Policies**

- 1. Land in the Granite Bay community shall, in general, be restricted to residential uses; parks and open space areas for watershed protection, air quality protection, scenic enjoyment and recreation; agricultural pursuits and such public, private and commercial uses as are necessary to serve the frequent needs of the community and to provide reasonable or accustomed services to local residents.

### 3.0 Affected Environmental and Environmental Consequences

3. Care shall be taken in the development and use of lands in the Granite Bay area to protect the community and downstream communities against excessive storm water runoff, flooding, air and water pollution, erosion, fire, landslides and other natural hazards.

#### **Goal: Land Use**

5. Preserve and protect the natural waterways and watersheds, wetlands, riparian areas, floodplains, and oak woodlands.

#### **Policies**

7. Property shall be developed with minimum disturbance to the natural terrain. The natural environment shall be enhanced, retained or restored as much as possible.

### **3.8.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPs**

#### **Methodology**

Potential land use impacts of the proposed project alternatives have been evaluated based on review of compatibility with existing and planned adjacent land uses, and consistency with adopted plans, policies, and zoning designations. Physical environmental impacts resulting from the proposed project alternatives and mitigation measures/BMPs are discussed in the applicable technical sections in this EA/EIR.

#### **Thresholds/Basis of Significance**

Criteria for determining the significance of impacts to land use have been developed based on Appendix G of the CEQA *Guidelines* and relevant agency thresholds. For the purposes of this Draft EA/EIR, land use impacts are considered significant if the Proposed Project would:

- Physically divide an existing community;
- Result in a substantial inconsistency with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflict with any applicable habitat conservation plan, or natural community conservation plan.

#### **Effects Found Not to be Significant**

The Initial Study (**Appendix C**) concluded that the Proposed Project would not physically divide an established community. This effect is therefore not considered within this EA/EIR.

## Project Specific Impacts

### Impact

- 3.8-1 The project could result in a substantial inconsistency with applicable land use plans, policies, or regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.**

#### ***No Project/No Action Alternative***

Under the No Action Alternative construction activities would not take place. The WWTP would continue to discharge treated effluent, exceeding waste discharge requirements established by CVRWQCB, to Miners Ravine. This Alternative would be inconsistent with designated beneficial recreational uses of Miners Ravine as identified by the Basin Plan and further discussed in **Sections 3.7** and **3.10** (CVRWQCB, 2011). Therefore, the No Action Alternative would be inconsistent with goals and policies of the general plan and community plans that emphasize protection of natural water ways and riparian habitat. **Significant and Unavoidable Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Alternative A would result in decommissioning of the existing SMD 3 WWTP, and construction of a pump station and force main to convey wastewater collected in the SMD 3 service area to the Dry Creek Regional WWTP located in the City of Roseville. This alternative would eliminate ongoing discharge of treated effluent to Miners Ravine that is not able to meet recent waste discharge requirements issued by the RWQCB, returning the stream to more natural flow conditions. Decommissioning of the WWTP would eliminate ongoing nuisances that may be experienced by residential housing located directly adjacent to the WWTP boundaries, including occasional odor and noise resulting from operation of the WWTP equipment. While Alternative A would result in the construction of a pump station at the SMD 3 site, the pump would be located in the southeast corner of the property, the furthest point away from existing sensitive receptors. Further, as discussed in **Section 3.9** and **Section 3.2**, respectively, noise and odor associated with the proposed pump station and re-purposed WWTP facilities would be considerably less than what is generated by the existing WWTP operations. Therefore, Alternative A would reduce the potential for land use conflicts with adjacent sensitive receptors as a result of operations at the site. The following discussion evaluates the consistency of the Proposed Project with applicable land use plans and regulations, including the Placer County Zoning Ordinance and General Plan, the Horseshoe Bar/Penryn Community Plan, and the Granite Bay Community Plan. **Less-Than-Significant Impact.**

#### *Placer County Zoning Ordinance*

The existing 8.2-acre SMD 3 WWTP site is zoned Open Space. Under this zoning, public utility facilities are considered an allowable land use with a Minor Use permit (MUP) (Placer County Zoning Ordinance 17.06.50). Because the site is County-owned, already developed, and used for operation of the existing SMD 3 WWTP since 1962, it does not have a MUP and is considered Legal Non-Conforming pursuant to Section 17.60.120.A of the Zoning Ordinance. The pump station under Alternatives A, B, and C would not introduce a new land use that would be incompatible with existing land uses in the area. The force main proposed under Alternative A

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would primarily pass through Residential-Agriculture/Building Site and Residential-Single Family/Agriculture, and Open Space zoning designations. Pipelines and transmission lines are considered an allowable land use under all three of these zoning designations (Placer County Zoning Ordinance 17.44.010, 17.50.010, and 17.14.010). The force main would be installed below ground surface; therefore, no change in land use would occur. Additionally, the majority of the proposed force main would be constructed adjacent to the existing SMD 2 sewer alignment and would therefore be consistent with existing land uses. **Less-Than-Significant Impact.**

*Placer County General Plan*

One of the objectives of Placer County General Plan’s land use standards is to locate compatible, related, mutually supportive land uses adjacent to one another (Placer County, 2008a). As discussed previously, the pump station would be located within the existing WWTP site that is developed with infrastructure that would support pump station operations and emergency storage requirements, and the force main would be constructed on land that has already been developed for transportation and utility purposes; therefore, the Proposed Project will be compatible with adjacent land uses and consistent with this primary objective of the General Plan.

A discussion of the Proposed Project’s consistency with applicable land use goals and policies of the Placer County General Plan is presented below in **Table 3.8-1**. As indicated in the table, the Proposed Project would be consistent with the goals, objectives, and policies of the County’s General Plan. **Less-Than-Significant Impact.**

**TABLE 3.8-1**  
CONSISTENCY WITH THE PLACER COUNTY GENERAL PLAN

Land Use Plan Policy	Consistent	Discussion
<b>Public and Quasi-Public Facilities, Infrastructure Goals</b>		
1.F To designate adequately-sized, well-located areas for the development of public facilities to serve both community and regional needs.	<b>Yes</b>	Components of the Proposed Project would be located in area already developed with public utility infrastructure to minimize potential impacts while effectively conveying wastewater for the community in the Horseshoe Bar area of Loomis.
<b>Policies</b>		
1.F.3 The County shall require public facilities such as wells, pumps, tanks, and yards, to be located and designed so that noise, light, odors, and appearance do not adversely affect nearby land uses.	<b>Yes</b>	With the implementation of mitigation measures/BMPs described in <b>Section 3.0</b> of this EA/EIR, effects related to noise, light, odors, and aesthetics resulting from the Proposed Project that could potentially affect nearby land uses would be less than significant.
Source: Placer County, 2008a.		

*Horseshoe Bar/Penryn Community Plan*

The entire 8.2-acre property supporting the existing SMD 3 WWTP, proposed for the construction of a pump station, is located within the Horseshoe Bar/Penryn Community Plan area and is therefore, subject to the goals and policies outlined in the Plan (Placer County, 2005).

Construction activities proposed to take place within this plan area would occur within the 8.2-acre property, which is zoned as Open Space with an Open Space land use designation. The Open Space land use designation is intended to protect important open space lands within Placer

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County by limiting allowable land uses to low intensity agricultural and public recreational uses, with structural development being restricted to accessory structures necessary to support the primary allowed uses, and critical public facilities. The construction of a pump station may not be consistent with intended land uses within the Open Space designation; however, the 8.2-acre County-owned site proposed for development is already being used to support public utilities, and has been since 1962. Therefore, while a pump station may not be consistent with land use designations, it would be consistent with existing land uses. The Proposed Project would be compatible with existing and surrounding land uses and would be consistent with the goals and policies of the Community Plan.

A discussion of the Proposed Project's consistency with the land use policies of the Horseshoe Bar/Penryn Community Plan is presented below in **Table 3.8-2**. As indicated in the table, the Proposed Project would be consistent with the policies of the Community Plan. **Less-Than-Significant Impact**.

**TABLE 3.8-2**  
CONSISTENCY WITH THE HORSESHOE BAR/PENRYN COMMUNITY PLAN

Land Use Plan Policy	Consistent	Discussion
<b>Goals</b>		
c. Preserve and protect the natural waterways, riparian and wetland areas, and the floodplains.	<b>Yes</b>	With the implementation of project design and mitigation measures/BMPs discussed in <b>Section 3.3</b> and <b>3.7</b> , impacts to natural waterways, riparian and wetland areas, and the floodplains would be less than significant.
f. Maintain compatibility between neighboring land uses.	<b>Yes</b>	Pipelines and transmission lines are considered allowable land uses in all land use designations within the project area and all surrounding land use designations. The Proposed Project would be consistent with all surrounding land uses.
g. Ensure adequate allocation of land use designations for public facilities (i.e. schools, parks) at a level necessary to meet the needs of existing and future residents.	<b>Yes</b>	The purpose of the Proposed Project is to provide wastewater treatment facilities that would accommodate existing and future residents of the Horseshoe Bar Community.
m. Assure that all building sites and residences are developed in a manner minimizing disturbance to natural terrain and vegetation and maximizing preservation of natural beauty and open space.	<b>Yes</b>	Project design and mitigation measures/BMPs discussed in <b>Sections 3.1, 3.3, 3.5, and 3.7</b> , would minimize disturbance to natural terrain and vegetation and maximize the preservation of natural beauty and open space during construction of the Proposed Project.
<b>Policies</b>		
a. Property shall be developed with minimum disturbance to the natural terrain. The natural environment shall be retained or restored as much as possible.	<b>Yes</b>	Construction methods and mitigation measures/BMPs have been designed to minimize any potential disturbance to natural terrain and vegetation.

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Land Use Plan Policy	Consistent	Discussion
c. Individual sites shall be landscaped attractively so as to integrate the entire development visually with the overall natural qualities of the planning area. Appropriately landscaped buffer areas of adequate size shall be provided to shield adjacent residential developments from commercial or industrial activities. Residential areas shall be protected from noise, unsightliness, odor, and other nuisances. Indigenous materials shall be used where practical.	<b>Yes</b>	Under the Proposed Project, unpaved areas would be restored by planting grasses and native vegetation. The riparian habitat bordering the WWTP site would provide a natural barrier between the wastewater treatment facilities and the surrounding residential areas. See <b>Section 3.3</b> for additional information regarding riparian habitats and native planting. Due to the heavy organic wastewater, additional odor control mechanisms would be integrated into project design. As described in <b>Section 2.0</b> , a carbon filter PVC cartridge would be used to control air displaced from the wet well and at the pumping station. Steps would be taken to prepare for additional odor control mechanisms if found necessary. Space would be provided at the pumping station for the installation of an air scrubbing system to control odor. A containment sump would also be included adjacent to the electrical building that would contain space for a chemical addition system if determined necessary for controlling excessive odor.
d. Population densities within the planning area should be guided by considerations of topography, geology, vegetative cover, preservation of natural terrain and resources, and access to transportation and service facilities.	<b>Yes</b>	The Proposed Project would not directly result in increased population densities. The purpose of the Proposed Project is to better accommodate the wastewater treatment needs of existing population densities in the Horseshoe Bar Community. See <b>Section 4.0</b> for a discussion of indirect growth inducing impacts.
e. Intensity of use of individual parcels and buildings shall be governed by considerations of: health and safety, impact on adjoining properties due to noise, traffic, night lighting, or other potentially disturbing conditions; and protection of natural resources, topography, noise exposure, maintenance of rural quality, and compatibility with the surrounding properties shall be considered in preparing subdivision designs. Subdivision density, or number of lots, will ultimately be determined by these factors. It is recognized that the maximum number of lots permitted by the land use or zoning' designations may not be realized once these factors are considered.	<b>Yes</b>	The portion of the Proposed Project that would be constructed within the Horseshoe Bar/Penryn Community Plan area would be located on a lot that is already developed to support public utilities. Therefore, the Proposed Project would be consistent with existing land uses on this property, and project design would minimize potential impacts to surrounding properties.
h. The rate of development and location of projects shall not exceed the capacity of the community, special districts and utility companies to provide all needed services and facilities in an orderly and economic manner.	<b>Yes</b>	The purpose of the Proposed Project is to accommodate the wastewater treatment needs of the existing Horseshoe Bar community.

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Land Use Plan Policy	Consistent	Discussion
n. Site specific floodplain studies by qualified professionals should be required prior to any new development adjoining such areas. The approximate 100-year floodplain designation for Secret Ravine, Miners Ravine, Morman Ravine, Antelope Creek and its tributaries based on fully developed upstream conditions, shall be revised and modified as additional information becomes available, or as changes occur in the watershed which cause changes in the flow characteristics.	<b>Yes</b>	See <b>Section 3.7</b> for a discussion regarding the floodplain of the Proposed Project area.
Source: Placer County, 2005.		

#### *Granite Bay Community Plan*

Under the Proposed Project, the entire force main would be located in the Granite Bay Community Plan area, and therefore, would be subject to the goals and policies outlined in the plan (Placer County, 2012). The force main would be located below ground surface within existing public rights of way or public easements, and would extend through the following land use designations identified by the Granite Bay Community Plan: Rural Residential, Rural-Low Density Residential, Rural Estate, and Open Space. Pipeline and transmission lines are considered allowable land uses under Section 17.2 of the Placer County Code. The force main therefore, would not result in a change of land use within the Granite Bay Community Plan Area, and all construction-related impacts would be temporary.

A discussion of the Proposed Project’s consistency with the land use policies of the Granite Bay Community Plan is presented below in **Table 3.8-3**. The Proposed Project would be consistent with the goals, objectives, and policies of the Community Plan. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

##### *Placer County Zoning Ordinance*

Under Alternative B, the project components related to the pumping station, emergency storage facilities, and wastewater treatment plant decommissioning are identical to those described under Alternative A, and therefore, would be subject to the same land use designations. The force main alignment proposed under Alternative B would also intersect the same zoning designations as Alternative A; however, the pipeline would involve less construction in open space areas than Alternative A, and would be constructed entirely within the Auburn Folsom Road and Joe Rodgers Road ROW. **Less-Than-Significant Impact.**

##### *Placer County General Plan*

Construction of Alternative B would be similar to Alternative A as discussed above. The pump station would be developed on a site already supporting wastewater treatment facilities, and the force main would be installed adjacent to the existing SMD 2 sewer and in developed areas along the Auburn Folsom Road and Joe Rodgers Road ROW. Consistency with land use policies outlined in the Placer County General Plan would be similar to Alternative A; refer to **Table 3.8-1**. **Less-Than-Significant Impact.**

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**TABLE 3.8-3**  
CONSISTENCY WITH THE GRANITE BAY COMMUNITY PLAN

Land Use Plan Policy	Consistent	Discussion
<b>Goals</b>		
5. Preserve and protect the natural waterways and watersheds, wetlands, riparian areas, floodplains, and oak woodlands.	Yes	With the implementation of project design and mitigation measures/BMPs discussed in <b>Section 3.3</b> and <b>3.7</b> , impacts to natural waterways, riparian and wetland areas, and the floodplains would be less than significant.
<b>Policies</b>		
7. Property shall be developed with minimum disturbance to natural terrain. The natural environment shall be enhanced, retained or restored as much as possible.	Yes	Installation of the force main would involve construction activities that have the potential to disturb the natural terrain; however, any disturbance would be temporary and minimized through project design and the implementation of mitigation measures/BMPs. The majority of the force main would be installed along the Auburn Folsom Road and Joe Rodgers Road ROW in previously disturbed and developed areas. The force main would be installed below ground surface and grasses and native vegetation would be planted to restore disturbed areas. See <b>Section 3.5</b> for additional discussion regarding mitigation measures/BMPs and construction methods for minimizing soil disturbance.
8. To preserve the character of the community, land use changes shall be considered only if: c. The change shall not significantly impact the level of services provided in its vicinity and there is or will be adequate infrastructure to serve the proposed development.	Yes	The Proposed Project would be consistent with allowed land uses, pipelines and transmission lines, within the applicable zoning designations. The majority of the proposed force main would be installed below ground adjacent to the existing SMD 2 sewer, which would be consistent with existing land uses and would not be perceived as a high-density development. The Proposed Project is intended to improve wastewater treatment services in the area and impacts to existing infrastructure have been analyzed and are discussed in <b>Section 3.12</b> .
Source: Placer County, 2012.		

*Horseshoe Bar/Penryn Community Plan*

Under Alternative B, all construction activities and project components that would take place within the Horseshoe Bar/Penryn Community Plan area would be identical to those described under Alternative A. Consistency with land use policies outlined in the Horseshoe Bar/Penryn Community Plan would be similar to Alternative A; refer to **Table 3.8-2. Less-Than-Significant Impact.**

*Granite Bay Community Plan*

Construction of the force main under Alternative B would be similar to Alternative A; however, rather than passing through a large space designated as open space north of Willow Lane, the entire alignment would be constructed along the Auburn Folsom Road and Joe Rodgers Road

ROW. This alternative will require two crossings of Miners Ravine. Consistency with land use policies outlined in the Granite Bay Community Plan would be similar to Alternative A; refer to **Table 3.8-3. Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

##### *Placer County Zoning Ordinance*

Under Alternative C, the project components related to the pumping station, emergency storage facilities, and wastewater treatment plant decommissioning are identical to those described under Alternative A, and therefore, would be subject to the same land use designations. The construction and location of the force main alignment proposed under Alternative C would be identical to Alternative B. It would intersect the same zoning designations and be subject to the same land use designations as Alternative B. **Less-Than-Significant Impact.**

##### *Placer County General Plan*

Construction of Alternative C would be identical to Alternative C as discussed above. Consistency with land use policies outlined in the Placer County General Plan would be similar to Alternative A; refer to **Table 3.8-1. Less-Than-Significant Impact.**

##### *Horseshoe Bar/Penryn Community Plan*

Under Alternative C, all construction activities and project components that would take place within the Horseshoe Bar/Penryn Community Plan area would be identical to those described under Alternative A. Consistency with land use policies outlined in the Horseshoe Bar/Penryn Community Plan would be similar to Alternative A; refer to **Table 3.8-2. Less-Than-Significant Impact.**

##### *Granite Bay Community Plan*

Construction of the force main under Alternative C would be identical to Alternative B, with the exception that 200 feet of the existing SMD 2 sewer located in the open space area north of Willow Lane would be upsized. Consistency with land use policies outlined in the Granite Bay Community Plan would be similar to Alternative A; refer to **Table 3.8-3. Less-Than-Significant Impact.**

## **Impact**

- 3.8-2 The Proposed Project could result in an inconsistency with an applicable habitat conservation plan or natural community conservation plan.**

#### ***No Project/No Action Alternative***

The No Action Alternative will not impact the long-term conservation goals contained in the County's General Plan and the Draft Placer Conservation Plan. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

The project site is within an area covered under the Draft Placer County Conservation Plan (Placer County, 2011). The Agency Draft Placer County Conservation Plan was released on

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February 1, 2011; however it is still in draft form and has not yet been adopted. Consistency with the recommendations and conservation strategies within the administrative draft plan are discussed in detail in **Section 3.3**, Biological Resources, of this EA/EIR. The Proposed Project is consistent with and will not impact the long-term conservation goals contained in the County's General Plan and the Draft Placer Conservation Plan. With mitigation measures/BMPs discussed in **Section 3.3 (Mitigation Measure 3.8-1)**, potential impacts to biological resources resulting from the Proposed Project would be minimized. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Under Alternative B, the project components related to the pumping station, emergency storage facilities, and WWTP decommissioning are identical to those described under Alternative A. The proposed force main would be located entirely within the Auburn Folsom Road ROW, and would require two crossings of Miners Ravine. Creek crossing would be accomplished using directional drilling or pipeline suspension methods, and thus would minimize impacts to riparian habitat. As with Alternative A, Alternative B would be located within the area covered under the Draft Placer County Conservation Plan. Alternative B is consistent with and will not impact the long-term conservation goals contained in the County's General Plan and the Draft Placer Conservation Plan. With mitigation measures/BMPs discussed in **Section 3.3 (Mitigation Measure 3.8-1)**, potential impacts to biological resources resulting from the Proposed Project would be minimized. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

The location of Alternative C would be identical to Alternative B and therefore, would have similar impacts to biological resources; however, construction activities under Alternative C would require upsizing the existing pipeline in some locations. Alternative C is consistent with and will not impact the long-term conservation goals contained in the County's General Plan and the Draft Placer Conservation Plan. With mitigation measures/BMPs discussed in **Section 3.3 (Mitigation Measure 3.8-1)**, potential impacts to biological resources resulting from the Proposed Project would be minimized. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

###### **Mitigation Measure 3.8-1: Minimize Potential Impacts to Biological Resources.**

Implement Mitigation Measures identified in **Section 3.3** to minimize potential impacts to biological resources consistent with the Draft Conservation Plan.

## Cumulative Impacts

### Impact

#### 3.8-3 The project could contribute to adverse cumulative impacts associated with land use.

##### ***No Project/No Action Alternative***

Under the No-Action Alternative, the SMD 3 WWTP would not be decommissioned, and the proposed sewer force main and associated components would not be constructed. Therefore, treated effluent exceeding standards would result in cumulative impacts to water quality in Miners Ravine, which is not consistent with County General Plan and Community Plan policies that emphasize protection of natural water ways and riparian habitat. **Significant and Unavoidable Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Potential cumulative projects in the vicinity of the project site, including growth resulting from build-out of the County's General Plan and Community Plans and other wastewater treatment plant project in the region (see **Section 3.0**), would be developed in accordance with local and regional planning documents; thus, cumulative impacts associated with land use compatibility are expected be less than significant. See **Section 4.2** for additional discussion regarding potential growth-related impacts. Implementation of project design and mitigation measures/BMPs would ensure that the Proposed Project would not result in cumulative impacts to land use. **Less-Than-Significant Impact.**

##### ***Alternative B Road Right-of-Way Alignment***

Under Alternative B, the potential for cumulative impacts associated with land use would be similar to Alternative A. Project design and implementation of mitigation measures/BMPs would ensure that cumulative impacts would not occur. **Less-Than-Significant Impact.**

##### ***Alternative C Hidden Valley Pipe Upsizing***

Under Alternative C, the potential for cumulative impacts associated with land use would be similar to Alternative B. Project design and implementation of mitigation measures/BMPs discussed above would ensure that cumulative impacts would not occur. **Less-Than-Significant Impact.**

## 3.9 NOISE

This section addresses the potential for the proposed project alternatives to result in effects associated with noise and vibration. Following an overview of the existing noise setting in **Subsection 3.9.1** and the relevant regulatory setting in **Subsection 3.9.2**, project-related effects and recommended mitigation measures/BMPs, if any, are presented in **Subsection 3.9.4**.

### 3.9.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

#### Fundamentals of Acoustics

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If pressure variations occur frequently enough (at least 20 times per second) they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness.

#### *Acoustical Terminology*

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptors, Ldn and CNEL, and shows very good correlation with community response to noise.

The Day-Night Average Level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment. Where short-term noise sources are an issue, noise impacts may be assessed in terms of maximum noise levels, hourly averages, or other statistical descriptors.

Another common descriptor is the community noise equivalency level (CNEL). The CNEL is similar to the Ldn, except it has an additional weighting factor. Both average noise energy over a 24-hour period. The CNEL applies a +5 decibel weighting to events that occur between 7:00 p.m. and 10:00 p.m., in addition to the +10 decibel weighting between 10:00 p.m. and 7:00 a.m. associated with Ldn. Typically, the CNEL and Ldn have similar results for the same noise events, with the CNEL sometimes reporting a 1 dB

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increase compared to the Ldn to account for noise events between 7-10 p.m. that have the additional weighting factor.

The perceived loudness of sounds and corresponding reactions to noise are dependent upon many factors, including sound pressure level, duration of intrusive sound, frequency of occurrence, time of occurrence, and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessments. All noise levels reported in this section are in terms of A-weighted levels in decibels.

**Table 3.9-1** shows examples of noise levels for several common noise sources and environments.

**TABLE 3.9-1**  
TYPICAL A-WEIGHTED SOUND LEVELS OF COMMON NOISE SOURCES

Common Outdoor Activities	Noise Level (dBA)	Common indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
Rural daytime		Large business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	
Source: Caltrans, 2009.		

#### **Noise Attenuation**

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 9 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4 to 6 dB.

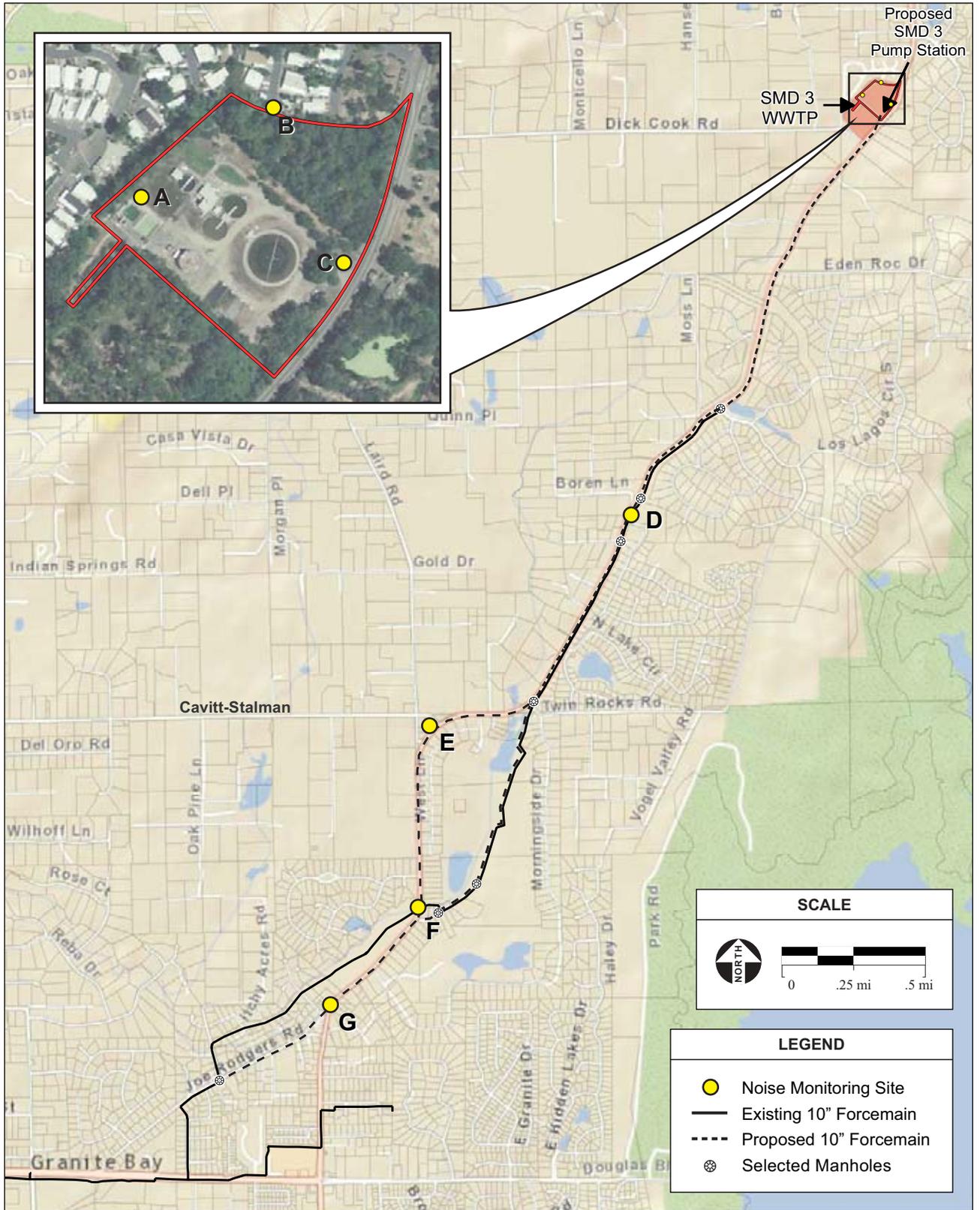
#### **Vibration**

Vibration is similar to noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPV) in inches per second. The vibration velocity, VdB, is a logarithmic scaling of vibration magnitude, and it allows relative measurements to be easily made.

### **Regional Setting**

#### **Ambient Noise Levels**

The project area is primarily rural in nature (i.e. open spaces and scattered residences), with the small town of Loomis located to the northeast and Granite Bay located to the south. Ambient noise measurements were conducted to determine noise levels at seven locations in the vicinity of the WWTP and force main alternatives (Sites A through G indicated on **Figure 3.9-1**) on February 2, 2012. Measurements taken at Site A and B were intended to describe the existing noise levels at WWTP and Site C was selected to determine the traffic noise produced by vehicles on Auburn-Folsom Road at the entrance to the WWTP. The purpose of measurements taken at Sites D through G was to describe the ambient noise environment along the pipeline route, which is dominated by traffic noise on Auburn-Folsom Road. **Table 3.9-2** summarizes the noise measurement results. Noise measurement output files are provided in **Appendix L**. Ambient noise measurements taken near the WWTP boundaries (Sites A and B, **Figure 3.9-1**) indicate that background noise levels are relatively constant. Noise levels during the survey period at these sites ranged from about 51.7 to 55.5 dBA, Ldn. Auburn-Folsom Road has a low volume of traffic that produces intermittent increases in noise in the vicinity of the project site and force main alignment. Fifteen minute noise measurements near the project site and along the force main route (**Figure 3.9-1**) show that background noise levels along Auburn-Folsom Road are relatively constant. Noise monitoring at Sites C through G was conducted between 4:00 pm and 5:00 pm and varied between 61.6 to 70.2 dBA Ldn.



SOURCE: Brown and Caldwell, 7/2011; AES, 2012

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**Figure 3.9-1**  
Noise Monitoring Sites

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**TABLE 3.9-2**  
MEASURED EXISTING AMBIENT NOISE LEVELS

Site	Location	Receptor	Date/Time	Hourly Ldn/Leq
A	Northwest corner of WWTP	Residents	2/2/12/3:30 PM	51.7
B	Eastern boundary of WWTP	Residents	2/2/12/3:51 PM	55.5
C	WWTP Driveway and 25 feet from F-A Road	Residents	2/2/12/4:08 PM	70.2
D	50 feet from A-F Road at Eagle View Lane	Residents	2/2/12/4:27 PM	65.8
E	50 feet from A-F Road at Cavitt-Stalman Road	Residents	2/2/12/4:47 PM	61.6
F	50 feet from A-F Road at Miners Ravine Turnout	Residents	2/2/12/5:24 PM	66.0
G	50 feet from A-F Road at Joe Rodgers Road	Residents	2/2/12/5:05 PM	65.4
A-F = Auburn-Folsom Road; Source: AES, 2012.				

#### **Existing WWTP Pump Noise**

The existing influent pumps at the WWTP are located in the Control and Pump building approximately 155 feet from the northern property boundary line. The influent pumps are used constantly and are located approximately 205 feet from the nearest noise sensitive receptor. The pumps are older and have some noise insulation features. Removal of the old pumps at SMD 3 will reduce noise currently produced at the site. Noise monitoring was conducted in the vicinity of the pumps (Site A, **Figure 3.9-1**), and demonstrated a consistent pump operational noise level of 51.7 dBA, Leq at approximately 85 feet from the Control and Pump building.

#### **Noise Sensitive Receptors**

Noise sensitive land uses are generally defined as land uses with the potential to be adversely affected by the presence of noise. Examples of noise sensitive land uses include residential housing, schools, health care facilities, and outdoor activity areas. Existing noise sensitive receptors in the project area with the potential to be adversely affected by the project are residential housing located adjacent to the project site, along roadways utilized by construction-related traffic, and along the force main route. The nearest residential sensitive receptors consist of single family homes located within approximately 50 feet of the north and west property boundaries to the WWTP where construction of the pump station and decommissioning of the existing WWTP would occur. Sensitive noise receptors are located as close as 50 feet from where construction-related traffic and force main construction would occur along Auburn-Folsom Road and Joe Rodgers Road.

### **3.9.2 REGULATORY FRAMEWORK**

In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average noise level that remains fairly constant with time. Commercial activities are also major sources of noise in some areas.

### 3.0 Affected Environmental and Environmental Consequences

Generally, the Federal Government sets noise standards for transportation noise sources that are closely linked to interstate commerce, such as aircraft, locomotives, and trucks. For those noise sources, the state is preempted from establishing more stringent standards. The state sets noise standards for those transportation noise sources that are not preempted from regulation, such as automobiles, light trucks, and motorcycles. Noise sources associated with commercial, and construction activities are generally subject to local control through noise ordinances and general plan polices.

#### **Federal**

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The Federal truck pass-by noise standard is 80 dB at 49.2 feet from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

#### ***U.S. Department of Transportation, Federal Transit Administration***

The Federal Transit Administration set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These criteria include 65 VdB for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, and laboratory facilities), 80 VdB for residential uses and buildings where people sleep, and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, and offices) (FTA 2006).

Standards have been established by the Committee of Hearing, Bio Acoustics, and Bio Mechanics (CHABA) to address the potential for groundborne vibration, which may cause structural damage to buildings. For fragile structures, CHABA recommends a maximum limit of 0.25 in/sec PPV (FTA, 2006).

#### **State**

Title 4, California Code of Regulations, has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The State establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the Federal limit of 80 dB. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 49.2 feet from the center line. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by State and local law enforcement officials.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of Ldn 45 dB in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise

levels greater than Ldn 60 dB. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

## Local

### *Placer County General Plan*

The General Plan Noise Element (Placer County, 2008a; Section 9) contains noise policies and standards (e.g., exterior and interior noise level performance standards for new projects affected by or including non-transportation noise sources, and maximum allowable noise exposure levels for transportation noise sources). Policies applicable to the proposed project alternatives are summarized below.

## Goal

- 9.A To protect County residents from the harmful and annoying effects of exposure to excessive noise.

## Policies

- 9.A.2 The County shall require that noise created by new non-transportation noise sources be mitigated so as not to exceed the noise level standards of Table 9-1 (on page 139 of the General Plan) as measured immediately within the property line of lands designated for noise-sensitive uses.
- 9.A.5 Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 9-1 (on page 139 of the General Plan) at existing or planned noise-sensitive uses, the County shall require submission of an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design. The requirements for the content of an acoustical analysis are listed in Table 9-2 (on page 141 of the General Plan).
- 9.A.6 The feasibility of proposed projects with respect to existing and future transportation noise levels shall be evaluated by comparison to Figure 9-1 (on page 139 of the General Plan).
- 9.A.9 Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 9-3 (on page 141 of the General Plan) at outdoor activity areas or interior spaces of existing noise-sensitive land uses.
- 9.A.12 Where noise mitigation measures are required to achieve the standards of Tables 9-1 and 9-3 (on page 139 and 141 of the General Plan, respectively), the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

**Placer County Noise Ordinance (Article 9.36)**

**9.36.080 Exceptions**

- A. An exception may be requested from any provision of this article. Requests for exceptions shall be made on forms provided by the county. Notice of the request for exception must be given to all the surrounding properties that would be impacted by the exception, i.e., those properties that would experience a noise level at their property line that exceeds Table 1 of Section 9.36.060 (included in this EA/EIR as **Table 3.9-3**).
  
- B. If the applicant can show to the county that a diligent investigation of available sound suppression techniques for construction-related noise indicates that immediate compliance with the requirements of this article would be impractical or unreasonable, due to the temporary nature or short duration of the exception, a permit to allow exception from the provisions contained in all or a portion of this article may be issued. Factors that the approving authority must consider for construction related exceptions shall include but not be limited to the following:
  - 1. Conformance with the intent of this article;
  - 2. Uses of property and existence of sensitive receptors within the area affected by sound;
  - 3. Factors related to initiating and completing all remedial work;
  - 4. The time of the day or night the exception will occur;
  - 5. The duration of the exception; and
  - 6. The general public interest, welfare and safety.

**9.36.030 Exemptions**

- 7. Construction (e.g., construction, alteration or repair activities) between the hours of 6 a.m. and 8 p.m. Monday through Friday, and between the hours of 8 a.m. and 8 p. m. Saturday and Sunday provided, however, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order.

**9.36.060 Sound limits for sensitive receptors**

- A. It is unlawful for any person at any location to create any sound, or to allow the creation of any sound, on property owned, leased, occupied or otherwise controlled by such person that:
  - 1. Causes the exterior sound level when measured at the property line of any affected sensitive receptor to exceed the ambient sound level by five dBA; or
  - 2. Exceeds the sound level standards as set forth in Table 1 of Section 9.36.060 (included in this EA/EIR as **Table 3.9-3**), whichever is the greater.

**TABLE 3.9-3**  
SOUND LEVEL STANDARDS (ON-SITE)

Sound Level Descriptor	Daytime (7 am to 10 pm)	Nighttime (10 pm to 7 am)
Hourly Leq, dB	55	45
Maximum level, (Lmax) dB	70	65
Source: Placer County Noise Ordinance, Section 9.36.060		

#### ***Horseshoe Bar/Penryn Community Plan***

The Horseshoe Bar/Penryn Community Plan 2005 (Community Plan) is a guiding document for development in the vicinity of the project site. Policies in the Community Plan that are relevant to the noise environment in the vicinity of the project site are included as follows:

#### **Goals: Community Development Element – Community Noise**

- a. Protect area residents from the harmful and annoying effects of exposure to excessive noise.
- b. Preserve the rural noise environment of the plan area and surrounding areas.

#### **Policies**

- b. Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 8 (in the Community Plan) as measured immediately within the property line of lands designated for noise-sensitive uses.
- c. Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 8 (on page 53 of the Community Plan) at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. The requirements for the content of an acoustical analysis are given by Table 10 (on page 56 of the Community Plan).

#### ***Granite Bay Community Plan***

The Granite Bay Community Plan, adopted February 28, 2012, is a guiding document applicable for development of the force main under the proposed project alternatives. Policies in the Granite Bay Community Plan that are relevant to the noise environment in the vicinity of the project site are summarized below:

#### **Goal: Health and Safety Element - Noise**

1. Provide for the health, safety and welfare of the Granite Bay area residents by providing a livable environment free from excessive noise.

#### **Policies**

1. Encourage the use of greenbelts or natural areas along roadways as a design feature of any development in order to mitigate noise impacts.
2. Ensure compliance with noise standards adopted in the General Plan Noise Element.
4. Noise emanating from construction activity that requires a grading or building permit is prohibited on Sundays and Federal holidays, and shall only occur:
  - Monday through Friday, 6 am to 8 pm (during daylight savings)

- Monday through Friday, 7 am to 8 pm (during standard time)
- Saturdays, 8 am to 6 pm

#### 3.9.3 ENVIRONMENTAL CONSEQUENCES/ IMPACTS AND MITIGATION MEASURES/BMPS

##### Methodology

This section identifies any impacts to the existing noise environment that could occur from construction, operation, and/or maintenance of the proposed project alternatives. Impacts to ambient noise conditions were analyzed based on an examination of the project site, measured noise levels, and published information regarding noise within the project area, and comparison of these factors to the significance criteria listed below. If significant impacts are likely to occur, mitigation measures/BMPS are included to increase the compatibility of the proposed project alternatives and reduce effects to less-than-significant levels. The increase in traffic noise resulting from the proposed project alternative as determined through a comparison of trips generated by the project to existing traffic levels on affected roadways. A doubling of traffic on a roadway would result in a three dBA increase in traffic noise which is the lowest threshold for human detection of increases in the ambient noise environment (FHWA, 2006).

##### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to the noise environment have been developed based on Appendix G of the CEQA *Guidelines* and relevant agency thresholds. Impacts to the noise environment would be considered significant if the Proposed Project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels
- 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

Additionally, the following significance criteria were developed based on guidance provided by the State CEQA Guidelines, and on other Federal and local guidance. For this noise analysis the most stringent Federal or local noise threshold is used to determine significance. Effects of the Proposed Project on the noise environment would be significant if project implementation would result in any of the following:

### 3.0 Affected Environmental and Environmental Consequences

- Operation of the project results in exposure of persons to or generation of noise levels in excess of the County of Placer's noise threshold of 55 hourly-Leq dB between the hours of 7 am to 10 pm and 45 hourly-Leq dB between the hours of 10 pm to 7 am.
- Construction or operation of the project results in the exposure of structures to excessive groundborne vibration levels in exceedance of the Caltrans' Guidelines Vibration Damage Potential Threshold Criteria (0.50 PPV for newer residential structures, commercial and industrial buildings).
- Construction or operation of the project results in the exposure of sensitive receptors to excessive groundborne vibration levels in exceedance of the Federal Transportation Authority (FTA) vibration standards (80 VdB for residential land uses).
- A substantial temporary permanent increase in the ambient noise level in the project vicinity due to traffic above 5 dBA or exceed Placer County's sound level standards set forth in Table 3.9-6 (Table 1 of the General Plan), whichever is greater.
- In accordance with Placer County's Noise Ordinance, noise from construction would be considered significant if:
  - 1) Construction occurs between the hours of 8 pm and 6 am Monday through Friday, and between the hours of 8 pm and 8 am on Saturday and Sunday; and/or
  - 2) Construction equipment is not fitted with muffling devices and is not maintained in good working order.

#### Effects Found Not to be Significant

The project site is not located within an airport land use plan area, within two miles of a public airport or public use airport, or within the vicinity of a private airport landing strip. Therefore, as determined within the Initial Study (**Appendix C**), further analysis of these issues is not included within this EA/EIR.

#### Project Specific Impacts

##### *Construction Impacts*

##### Impact

- 3.9-1 Construction activities associated with the force main, pump station, and WWTP decommissioning have the potential to intermittently and temporarily generate noise levels significantly greater than existing ambient levels in the project vicinity.**

##### *No Project/No Action Alternative*

Under the No Action Alternative, no construction related noise would occur because the project would not be constructed. Existing noise conditions at the WWTP would remain the same. **No Impact.**

##### *Alternative A Hidden Valley Force Main Alignment*

Construction of the pump station, decommissioning of the WWTP, and installation of the force main during Phase I and II would involve heavy equipment usage such as cranes, backhoes,

### 3.0 Affected Environmental and Environmental Consequences

compaction equipment, trenchers, pavers, delivery trucks, personal vehicles, generators, and dump trucks. Activities associated with construction would intermittent and would temporarily add to the existing noise environment; therefore, construction activities would have the potential to temporarily raise the ambient noise levels in the vicinity of sensitive receptors. **Table 3.9-4** shows typical noise level for common construction equipment.

The nearest sensitive receptors are 50 feet north of the property boundary and consist of single family homes and a mobile home park. As indicated in **Table 3.9-4**, typical construction activities (equipment use factor of 25% or more) could result in noise levels up to 88 dBA, Lmax at 50 feet from the construction equipment. Therefore, typical construction and demolition activities would result in maximum noise level at the nearest sensitive receptors of 88 dBA Lmax during the majority of the construction period. Additionally, as described in **Section 2.4.3**, blasting may be required on the SMD 3 WWTP site to break up in-situ rock prior to excavation.

**TABLE 3.9-4**  
NOISE EMISSION LEVELS FOR TYPICAL CONSTRUCTION EQUIPMENT

Equipment Description	Typical Use Factor %	Predicted Lmax @ 50 ft (dBA, Lmax)
Rock Crusher	25	88
Backhoe	40	80
Concrete Mixer Truck	40	85
Concrete Pump Truck	20	82
Dozer	40	85
Dump Truck	40	84
Excavator	40	85
Flat Bed Truck	40	84
Front End Loader	40	80
Jack Hammer	25	80
Pneumatic Tools	50	85
All Other Equipment > 5 HP	50	85
Blasting	1	126
Source: FHWA, 2006.		

As indicated in **Table 3.9-4**, blasting activities could result in noise levels up to 126 dBA Lmax. Due to the nature of the in-situ rock at the SMD 3 WWTP site, blasting activity at the WWTP site would occur as a single event, and associated noise is not expected to last more than one minute (refer to **Section 2.4.3**). A discussion of airblast and ground vibration from blasting is provided under **Impact 3.9-3**.

Typical construction activities associated with installation of the force main would result in a maximum noise level of 85 db, Lmax at the nearest sensitive noise receptors along the force main route during the majority of the construction period. Additionally, as described in **Section**

**2.4.3**, blasting may be required along up to five percent of the total alignment to break up “non-rippable” in-situ rock prior to excavation. As indicated in **Table 3.9-4**, blasting activities could result in noise levels up to 126 dBA Lmax. Blasting would occur infrequently and as a single event at each location, and associated noise is not expected to last more than one minute (refer to **Section 2.4.3**). A discussion of airblast and ground vibration from blasting is provided under **Impact 3.9-3**.

Noise levels as a result of construction of the pump station and force main and decommissioning of the WWTP would exceed the County’s maximum noise level standard of 70 dB, Lmax at sensitive receptors located within 750 feet of construction activities. County Ordinance 9.36.030 exempts construction noise if construction activities occur between 6 am and 8 pm Monday through Friday and 8 am to 8 pm Saturday and Sunday, and construction equipment is properly equipped with noise control devices. Construction-generated source noise could result in annoyance and/or sleep disruption to nearby noise sensitive receptors (e.g., residences) if County standards for construction activities are not met. This is considered a potentially significant short term impact. **Mitigation Measure 3.9-1** and **Mitigation Measure 3.9-3** (see **Impact 3.9-3**), would reduce noise-related construction impacts and facilitate communication between construction managers and adjacent sensitive receptors to avoid adverse effects. After mitigation, noise impacts due to construction of Alternative A would be less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Construction activities under Alternative B would be similar to Alternative A, with the exception that more activities would take place along Auburn-Folsom Road potentially impacting more sensitive receptors located adjacent to this roadway. Typical construction and demolition activities would result in maximum noise level at the nearest sensitive receptor of 88 dBA Lmax, which is greater than the County’s residential max level of 70 dB, Lmax. Additionally, blasting activities would result in a short-term single noise event of 126 dBA Lmax at the nearest sensitive receptors. This is considered a potentially significant short term impact. However, with implementation of **Mitigation Measure 3.9-1** and **Mitigation Measure 3.9-3**, noise impacts due to construction of Alternative B would be less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative B. Therefore, typical construction and demolition activities would result in maximum noise level at the nearest sensitive receptor of 88 dBA Lmax, which is greater than the County’s residential max level of 70 dB, Lmax. Additionally, blasting activities would result in a short-term single noise event of 126 dBA Lmax at the nearest sensitive receptors. This is considered a potentially significant short term impact. However, with implementation of **Mitigation Measure 3.9-1** and **Mitigation Measure 3.9-3**, noise impacts due to construction of Alternative C would be less than significant. **Less-Than-Significant Impact with Mitigation.**

### Mitigation Measures/BMPs

#### *Alternative A Proposed Project, Alternative B, and Alternative C*

**Mitigation Measure 3.9-1: Implement Noise-Reducing Construction BMPs.** The County shall ensure through contractual obligations that the following measures are implemented during construction:

- Construction activities should be limited to the hours of 6 am to 8 pm Monday through Friday and 8 am to 8 pm Saturday and Sunday.
- Stationary equipment and staging areas shall be located as far as practical from noise-sensitive receptors to minimize noise disturbance. Noise sensitive receptors are defined to include residential housing, schools, health care facilities, and outdoor activity areas. Equipment shall not be left idling for more than 5 minutes.
- All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' specifications.
- To the extent feasible, existing barrier features (structures) shall be used to block sound transmission between noise sources and noise sensitive land uses.
- The County will designate a disturbance coordinator, such as an employee of the general contractor or the project manager for the County, post the coordinator's contact telephone number conspicuously around the project site, and provide the number to nearby sensitive receptors. The disturbance coordinator shall receive all public complaints, be responsible for determining the cause of the complaints, and implement any feasible measures to alleviate the problem.

### Impact

**3.9-2 Increased traffic associated with construction of the pump station, force main, and decommissioning of the WWTP has the potential to intermittently and temporarily increase the ambient noise level in the project area.**

#### ***No Project/No Action Alternative***

Under the No Action Alternative, no construction-related traffic noise would occur because the project would not be constructed. Existing traffic noise conditions at the WWTP and on local roadways would remain the same. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

During construction, Alternative A would increase traffic on the road network providing access to the WWTP and force main alignment by approximately eight one-way truck trips, and 100 one-way worker car trips per day (refer to **Section 3.10**). One truck generates the same noise as approximately 8 cars (FHWA. 2006); therefore, the number of noise equivalent cars (from eight one-way truck trips) Alternative A would add to the roadway network is 64 per day. Construction

### 3.0 Affected Environmental and Environmental Consequences

traffic would be intermittent and temporary, and would generally occur between the hours of 6 am to 8 pm. Due to the nature of the decibel scale, a doubling of traffic will result in a three dBA increase in the ambient noise level, which is barely perceivable (Caltrans, 2009). Auburn-Folsom Road is the main access road to the project site. Sensitive receptors, including single family homes and a church, are located directly adjacent to this roadway. The existing traffic volume on Auburn-Folsom Road is approximately 9,900 vehicles per day (Placer County, 2005).

The results of noise monitoring indicate that existing ambient noise level along Auburn-Folsom Road is 70.2 Leq, dBA, which is greater than the County's acceptable noise level for residential.

Project-related construction traffic would increase traffic levels on Auburn-Folsom Road by 164 vehicles per day. The increase in the ambient noise level due to construction traffic would be 0.07 Leq, dBA, which is not an audible increase and is less than the County's threshold of 5 dBA (Caltrans, 2009). Noise from construction traffic would not cause a substantial temporary or periodic increase in the ambient noise level in the project vicinity above levels existing without the project; therefore, a significant impact to sensitive noise receptors located along Auburn-Folsom Road and affected roadways would not occur with construction of Alternative A. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

Construction worker and material trips generated by Alternative B would be the same as those generated by Alternative A. Noise from construction traffic would not cause a substantial temporary or periodic increase in the ambient noise level in the project vicinity above levels existing without the project; therefore, a significant impact to sensitive noise receptors located along Auburn-Folsom Road and affected roadways would not occur with construction of Alternative B. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction worker and material trips generated by Alternative C would be similar to those generated by Alternative A. Noise from construction traffic would not cause a substantial temporary or periodic increase in the ambient noise level in the project vicinity above levels existing without the project; therefore, a significant impact to sensitive noise receptors located along Auburn-Folsom Road and affected roadways would not occur with construction of Alternative C. **Less-Than-Significant Impact.**

**Impact**

**3.9-3 Construction of the pump station, force main, and decommissioning of WWTP has the potential to expose sensitive receptors to excessive ground-borne vibration.**

***No Project/No Action Alternative***

Under the No Action Alternative, no construction related vibration or vibration noise would occur because the project would not be constructed. Existing vibration and vibration noise conditions at the WWTP would remain the same. **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Construction activities under Alternative A, such as grading heavy truck movements, and blasting may produce detectable levels of vibration at nearby sensitive land uses. With the exception of blasting activities, ground vibrations due to construction activities very rarely reach the levels that can damage structures, but they can reach levels perceptible in buildings close to the site of construction activities.

The California Transportation Department (Caltrans) has published vibration and vibration noise levels caused by representative construction equipment (**Table 3.9-5**). Based on the value at 25 feet, vibration and vibration noise due to the operation of equipment such as heavy trucks and bulldozers associated with the project could be perceived by residents in homes located within 25 feet of the construction site. Structural damage due to construction-related vibration is unlikely outside 25 feet from the construction site.

**TABLE 3.9-5**  
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT AT 525 AND 50 FEET

Equipment	Peak Particle Velocity at 25 feet	Peak Particle Velocity at 50 feet	Vibration Noise Level at 25 feet	Vibration Noise Level at 50 feet
	inches/second	inches/second <sup>1</sup>	VdB	VdB <sup>2</sup>
Blasting	2.000	0.758	129	126
Large bulldozer	0.089	0.034	87	80
Caisson drilling	0.089	0.034	87	80
Loaded trucks	0.076	0.029	86	79
Jackhammer	0.035	0.013	79	73
Small bulldozer	0.003	0.001	58	52

<sup>1</sup> PPV<sub>predicted</sub> = PPV<sub>ref</sub> \* (D<sub>ref</sub>/D<sub>source</sub>)<sup>1.4</sup>.  
<sup>2</sup> VdB<sub>predicted</sub> = VdB<sub>ref</sub> - 10log(D/D<sub>ref</sub>).  
 Source: Caltrans, 2004.

The use of heavy equipment that would produce the highest vibration levels would be intermittent, and would be limited to daytime hours. The nearest vibration receptor is 50 feet from the site of

### 3.0 Affected Environmental and Environmental Consequences

construction. At this distance, vibration and vibration noise from typical construction activities would not exceed Caltrans' vibration threshold of 0.1 inches per second PPV or the FTA's vibration noise threshold of 80 VdB; therefore, a less than significant impact from typical construction activities and equipment usage would occur.

Blasting activities may be required for the Proposed Project along some portions of the pipeline alignment and at the SMD 3 WWTP. The potential effects of vibration from blasting activities are structural damage to buildings and annoyance to human receptors. Major residential structural damage can occur when vibration produced by blasting exceeds 6.0 PPV and cracking of plaster or drywall can occur at 2.0 PPV. Human annoyance generally occurs at 1.0 to 2.0 PPV and vibration is barely perceptible at 0.02 PPV (Caltrans, 2004). As shown in **Table 3.9-5** blasting during construction would result in a vibration of approximately 0.758 PPV at a reference distance of 50 feet (the distance to the nearest sensitive receptor), which is greater than Caltrans' Guidelines Vibration Damage Potential Threshold of 0.50 PPV for newer residential structures, commercial, and industrial buildings. This is considered a potentially significant short-term impact. However, with the implementation of **Mitigation Measure 3.9-3** blasting vibration would be reduced to below Caltrans' threshold. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Construction activities under Alternative B would be similar to Alternative A, with the exception that more activities would take place along Auburn-Folsom Road potentially impacting more sensitive receptors located adjacent to this roadway. The nearest vibration and vibration noise receptor under Alternative B is 50 feet from the site of construction. As shown in **Table 3.9-5** blasting during construction would result in a vibration of approximately 0.758 PPV at a reference distance of 50 feet (the distance to the nearest sensitive receptor), which is greater than Caltrans' Guidelines Vibration Damage Potential Threshold of 0.50 PPV for newer residential structures, commercial, and industrial buildings. However, with the implementation of **Mitigation Measure 3.9-3** blasting vibration would be reduced to below Caltrans' threshold. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Construction activities under Alternative C would be similar to Alternative B. The nearest vibration and vibration noise receptor under Alternative C is 50 feet from the site of construction. As shown in **Table 3.9-5** blasting during construction would result in a vibration of approximately 0.758 PPV at a reference distance of 50 feet (the distance to the nearest sensitive receptor), which is greater than Caltrans' Guidelines Vibration Damage Potential Threshold of 0.50 PPV for newer residential structures, commercial, and industrial buildings. However, with the implementation of **Mitigation Measure 3.9-3** blasting vibration would be reduced to below Caltrans' threshold. **Less-Than-Significant Impact with Mitigation.**

#### Mitigation Measures/BMPs

##### *Alternative A Proposed Project, Alternative B, and Alternative C*

**Mitigation Measure 3.9-3: Prepare and Implement a Blasting Plan.** As part of the project plans and specifications, the County will require the contractor to retain a qualified blasting specialist to develop a site-specific blasting program report to assess, control, and monitor airblast and ground vibration from blasting. The report will be reviewed and approved by the County prior to issuance of a blasting permit. The report will include, at minimum, the following measures:

- The contractor will use current state-of-the-art technology to keep blast-related vibration at offsite residential, other occupied structures and well sites as low as possible, consistent with blasting safety. In no instance will blast vibration, measured on the ground adjacent to a residential, other occupied structure, or well site be allowed to exceed the frequency-dependent limits specified of 0.5 inches per second (in/sec) for surface structures, and 2.0 in/sec for buried pipelines or other buried structures.
- The project contractor will use current state-of-the-art technology to keep airblast at offsite residential and other occupied structures as low as possible. In no instance will airblast, measured at a residence or other occupied structure, be allowed to exceed the 0.012-pounds-per-square inch (133-decibel) limit. Air blast at the property line or right-of-way boundary shall not exceed 0.013 psi (140 dBL).
- The project contractor will monitor and record airblast and vibration for blasts within 1,000 feet of residences and other occupied structures to verify that measured levels are within the recommended limits at those locations. The contractor will use blasting seismographs containing three channels that record in three mutually perpendicular axes and which have a fourth channel for recording airblast. The frequency response of the instrumentation shall be from 2 to 250 Hertz, with a minimum sampling rate of 1,000 samples per second per channel. The recorded data must be such that the frequency of the vibrations can be determined readily. If blasting is found to exceed specified levels, blasting will cease, and alternative blasting or excavation methods shall be employed that result in the specified levels not being exceeded.

Airblast and vibration monitoring shall take place at the nearest offsite residential or other occupied structure. If vibration levels are expected to be lower than those required to trigger the seismograph at that location, or if permission cannot be obtained to record at that location, recording will be accomplished at some closer site in line with the structure. Specific locations and distances where airblast and vibration are measured will be documented in detail along with measured airblast and vibration amplitudes.

## ***Operational Impacts***

### **Impact**

- 3.9-4 Operation of the Proposed Project has the potential to generate noise levels above existing ambient levels in the project vicinity.**

#### ***No Project/No Action Alternative***

Under the No Action Alternative the existing pumps at the WWTP would continue to operate within 50 feet of sensitive receptors producing an ambient noise level of 51.7 Leq, dBA. This is inconsistent with the County's nighttime noise threshold of 45 hourly-Leq, dB, no new source of operational related noise would occur. Existing conditions at the WWTP would remain the same.

**No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Alternative A would result in the construction of noise generating equipment on the SMD 3 WWTP site, including a pump station and stand-by generator. These facilities would likely be located near the southern property boundary, with the nearest sensitive receptors located approximately 150 feet south of the southern property boundary, across Auburn-Folsom Road. The proposed pump station under Alternative A would include two electric pumps located at the bottom of a fiberglass wet well submersed in effluent and covered with two aluminum doors. The placement of the submersed pumps at the bottom of the covered wet well would eliminate pump noise at ground level. The stand-by generator would be located outside at ground level and would be used on an intermittent emergency basis. The generator would be equipped with a manufacturer's sound-attenuating enclosure. Generally, manufacturer's sound-attenuating enclosures result in an 80 dB sound level at 23 feet from the generator (Cat, 2011). Given the distance to the nearest sensitive noise receptor from the generator (150 feet) the noise level at the nearest sensitive noise receptor would be approximately 53 dB. Therefore, it is anticipated that the manufacturer's sound-attenuating enclosures would not meet the Placer County noise standard of 45 hourly-Leq, dB during nighttime hours at the nearest sensitive receptor. Therefore, a custom sound-attenuating enclosure would need to be installed (refer to **Section 2.4.1**) to reduce generator noise levels to 45 hourly-Leq. Custom sound-attenuating features provided in **Mitigation Measure 3.9-4** would reduce generator noise below the County's noise threshold of 45 hourly-Leq, dB for residential sensitive receptors. Alternative A would result in the decommissioning of the existing WWTP which would reduce the overall level of noise generated from operation of equipment on the site. Similarly, noise generated from maintenance related activities would be reduced compared to existing conditions. The reduction in operational ambient noise as a result of decommissioning the WWTP and operation of the pump station is considered a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

***Alternative B Road Right-of-Way Alignment***

As with Alternative A, Alternative B would result in the decommissioning of the existing WWTP which would reduce the overall level of noise generated from operation of equipment on the site. While the proposed stand-by generator would generate noise, it would not increase noise levels at the WWTP site above existing conditions. Similarly, noise generated from maintenance related activities would be reduced compared to existing conditions. With **Mitigation Measure 3.9-4**, the reduction in operational ambient noise as a result of decommissioning the WWTP and operation of the pump station is considered a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

***Alternative C Hidden Valley Pipe Upsizing***

As with Alternative A, Alternative C would result in the decommissioning of the existing WWTP which would reduce the overall level of noise generated from operation of equipment on the site. While the proposed stand-by generator would generate noise, it would not increase noise levels at the WWTP site above existing conditions. Similarly, noise generated from maintenance related activities would be reduced compared to existing conditions. With **Mitigation Measure 3.9-4**, the reduction in operational ambient noise as a result of decommissioning the WWTP and operation of the pump station is considered a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

**Mitigation Measures/BMPs**

***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.9-4: Install a Noise Attenuation Enclosure.** A custom noise attenuation enclosure shall be installed around the stand-by generator that reduces the noise level to or below the County's nighttime noise threshold of 45 hourly-Leq, dB at 150 feet. The County shall conduct a post-project noise assessment of the effectiveness of the noise attenuation enclosure.

**Cumulative Impacts**

**Impact**

**3.9-5 Operation of the Proposed Project in combination with cumulative developments has the potential to generate noise in excess of Placer County standards under cumulative conditions.**

***No Project/No Action Alternative***

Under the No-Action Alternative, no construction-related noise or increases in operational noise would occur. Existing noise generated by equipment at the WWTP would remain the same. Therefore, this alternative would not contribute towards cumulative noise effects. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Construction and operation of the Alternative A in combination with cumulative development in the project vicinity has the potential to increase the ambient noise level. There are no reasonably foreseeable construction projects that would occur concurrently with construction of the Proposed Project, therefore, the potential for cumulative noise effects would be limited to project operation. As discussed under **Impact 3.9-4**, operation of Alternative A would result in a decrease in the overall ambient noise level at the SMD 3 WWTP and immediate vicinity as a result of removal of existing noise generating equipment. The proposed pump station would not produce audible noise at ground level, and the proposed stand-by generator would be operated on an emergency basis and would not generate noise levels over existing conditions. Therefore, Alternative A's contribution to potential cumulative impacts associated with ambient noise levels would be less than significant. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

Cumulative construction and operational related noise resulting from under Alternative B would be the same as Alternative A; therefore, Alternative B's contribution to potential cumulative impacts associated with ambient noise levels would be less than significant. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Cumulative construction and operational related noise resulting from under Alternative C would be the same as Alternative A; therefore, Alternative C's contribution to potential cumulative impacts associated with ambient noise levels would be less than significant. **Less-Than-Significant Impact.**

### 3.10 RECREATION

This section addresses the potential for the Proposed Project and Alternatives to impact the recreation areas in the vicinity of the Proposed Project location. Following an overview of the affected environment in **Subsection 3.10.1** and the regulatory framework in **Subsection 3.10.2**, project-related impacts and recommended mitigation measures/BMPs are presented in **Subsection 3.10.3**.

#### 3.10.1 AFFECTED ENVIRONMENT / ENVIRONMENTAL SETTING

##### Regional Setting

Placer County (County) has a wealth of recreation areas; many emphasizing the use and enjoyment of local outdoor resources. A total of 36 parks include public uses such as camping and picnic areas, walking and hiking trails, recreation halls, and a variety of athletic facilities. To designate, promote, and expand recreational land uses to serve the needs of residents and visitors is one of the goals outlined in the Placer County General Plan (Placer County, 2008a). The Placer County Parks and Grounds Division is responsible for constructing, operating and maintaining recreation areas in accordance with the countywide goals and policies in unincorporated Placer County.

Recreation areas are also an integral part of land use planning in the individual community plan areas. The unincorporated Horseshoe Bar/Penryn Community Plan area includes three public parks, trails, and recreational facilities at two elementary schools. Recreation areas within the Horseshoe Bar/Penryn Community Plan area are listed in **Table 3.10-1**. Goals and policies have been defined to encourage future designation and development of recreation areas within this community plan area with the primary objective of maintaining the area's rural character and quality of life. Goals and policies pertaining to recreation are included below in **Subsection 3.10.2**.

**TABLE 3.10-1**  
HORSESHOE BAR/PENRYN COMMUNITY PLAN RECREATION AREAS

Recreation Area	Type/Facilities	Acreage
Traylor Ranch Nature Preserve	3.5 miles of trails	88 acres
Loomis Basin Community Park	Sports fields, playground, picnic area, equestrian arena	33 acres
Griffith Quarry Park and Museum	Museum, hiking trails, picnic areas	24.4 acres
Penryn Elementary School	Recreational fields	3 acres
Placer Elementary School	Softball/baseball field	5.1 acres
Trails	Hiking/walking trails	5.5 miles
Source: Placer County, 2005		

### 3.0 Affected Environmental and Environmental Consequences

The Granite Bay Community Plan area includes one state park, one passive park, eight community/neighborhood parks, and six public schools with recreational facilities available for use by the public. Recreation areas within the Granite Bay Community Plan area are listed in **Table 3.10-2**. Goals and policies have been developed to promote healthy, active communities through the safe, equitable and accessible planning of public spaces as well as the provision of opportunities for pedestrian and non-motorized travel (Placer County, 2012). Goals and policies pertaining to recreation are included below in **Subsection 3.10.2**.

**TABLE 3.10-2**  
GRANITE BAY COMMUNITY PLAN RECREATION AREAS

Recreation Area	Type/Facilities	Acreage
Folsom Lake State Rec. Area	Picnic Areas, multi-use trails, swimming area	1685
Miners Ravine Nature Reserve	Multi-use trails	24.6
Franklin School Community Park	Soccer field, baseball field, multi-use trails	4.4
Granite Bay Community Park	Playground, picnic area, sports fields, multi-use trails	14.3
Ronald L. Feist Park	Playgrounds, picnic area, tennis courts, sports fields,	16.3
Douglas Ranch Park	Playground and baseball field	4.5
Sterling Point Park	Playground, picnic area, and baseball field	6
Treelake Park	Playground, basketball court, tennis court, sports fields	8
Treelake Terrace Park	Multi-use trails	2.6
Greyhawk Park	Playground and picnic area	1.4
Cavitt Jr. High School	Playground, basketball/tennis courts, sports fields	8
Eureka School District Offices	Playground, basketball courts, sports fields	3
Granite Bay High School	Basketball courts, sports fields, track/stadium	19
Greenhills School	Playground, basketball courts, sports fields	4.5
Oakhills School	Playground, basketball courts, sports fields	4
Ridgeview School	Playground and basketball courts	4
Source: Placer County, 2012		

## Local Setting

Recreation areas in the vicinity of the project area are shown in **Figure 3.10-1**. The most prominent recreational land uses in the vicinity of the Proposed Project area are the Folsom Lake State Recreation Area and the Miners Ravine Nature Reserve. Additionally, Auburn-Folsom Road supports passive recreational use including walking, jogging, bicycling, and horse-back riding.

### ***Folsom Lake State Recreation Area***

The Folsom Lake State Recreation Area (SRA) is located approximately 1.5 miles east of the project area. The location of the Folsom Lake Recreation Area in relation to the project site can be seen in **Figure 3.10-1**. The Folsom Lake SRA covers approximately 19,500 acres, with approximately 1,685 acres located in the Granite Bay Community Plan area. This recreation area supports activities including but not limited to: hiking, biking, running, camping, picnicking, horseback riding, as well as boating and aquatic activities. The Peninsula campground and Beals Point campground offer camping amenities at the Folsom Lake SRA, and are accessed via Rattlesnake Bar Road and Auburn-Folsom Road respectively. This recreation area and associated facilities are operated by California State Parks and collectively attract approximately 2 million visitors each year (California State Parks, 2008a).

### ***Miners Ravine Nature Reserve***

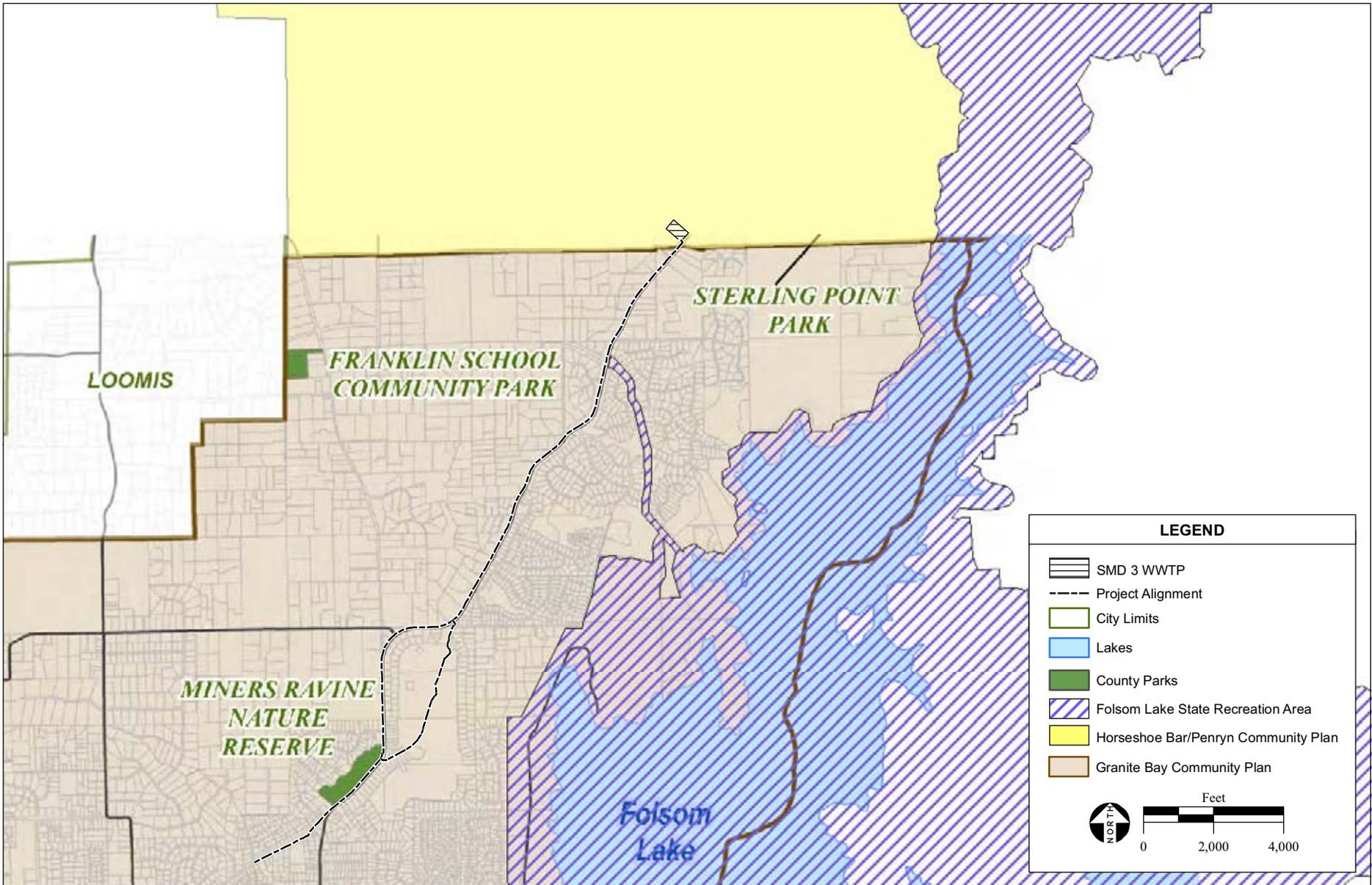
The Miners Ravine Nature Reserve is located at 7530 Auburn-Folsom Road, directly adjacent to the Proposed Project area. The location of the Miners Ravine Nature Reserve in relation to the Proposed Project area can be seen in **Figure 3.10-1**. It covers an area of approximately 24.6 acres on the west side of Auburn-Folsom Road and is located within the Granite Bay Community Plan area. The nature reserve is classified as a passive park and includes multi-use trails, two self-guided trails with interpretive signs, and a parking lot for visitors which can be accessed by Auburn-Folsom Road (Placer County Parks and Grounds Department, 2012). The Reserve supports activities including, but not limited to, walking/jogging, bicycling, and horseback riding. The reserve is bordered by Auburn-Folsom Road to the east and south, and is surrounded by residential development to the north, west, and south.

## 3.10.2 REGULATORY FRAMEWORK

### State

#### ***California Government Code §65560(b)***

California Government Code §65560(b) defines “open space land” as any parcel or area of land or water that is unimproved and devoted to an open space use. State law requires the Open Space element of the Placer County General Plan to promote the retention of open space for recreational purposes.



**Figure 3.10-1**  
Surrounding Recreational Uses

#### ***California's Recreation Policy***

The 2005 California Recreation Policy provides a comprehensive set of policies for many types of recreation activities ranging from active to passive, indoors to outdoors, on land and water, in facilities, and in programs and support functions (California State Parks, 2008b). This policy addresses five separate areas of recreation with the following objectives.

1. Adequacy of recreation opportunities: The supply of parklands, water, open space, recreation facilities and services must be adequate to meet future and current demands, particularly in the state's most populated areas.
2. Leadership in recreation management: Leadership, cooperation and partnership must be demonstrated at all levels to ensure that quality recreation resources, opportunities, programs and services are provided.
3. Recreation's role in a healthier California: Meaningful recreation activities, facilities, programs and increased opportunities for physical activity are vital to improving health and well-being of Californians.
4. Preservation of natural and cultural resources: Educating Californians about their state's invaluable resources is a critical part of ensuring these resources continue to be available for the enjoyment of current and future generations.
5. Accessibility to all Californians: All citizens have the right to enjoy California's park and recreation legacy.

#### **Local**

##### ***Placer County General Plan***

The following Placer County General Plan goals and policies are applicable to recreation areas in the vicinity of the project area (Placer County, 2008a).

#### **Goal**

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

#### **Policies**

5.A.13 The County shall ensure that recreational activity is distributed and managed according to an area's carrying capacity, with special emphasis on controlling adverse environmental impacts, conflict between uses, and trespass. At the same time, the regional importance of each area's recreation resources shall be recognized.

5.C.2 The County shall support the integration of public trail facilities into the design of flood control facilities and other public works projects whenever possible.

- 5.C.5 The County shall encourage the preservation of linear open space along rail corridors and other public easements for future use as trails.

#### ***Horseshoe Bar/Penryn Community Plan***

The primary objective of the Recreation Element within the Horseshoe Bar/Penryn Community Plan is to maintain a balance of active and passive recreation areas while also preserving natural resources (Placer County, 2005). The following goals and policies of the Plan are applicable to recreation areas in the vicinity of the Proposed Project.

#### **Goals- Recreation Element**

2. Protect and conserve the natural resources of the area, especially where such resources can add to the variety of recreation activities available in the area.
  
4. Create a trail network to provide access to developed areas, as well as public access to open space and recreation resources consistent with the need to protect these resources.
  
8. Protect and preserve the area's most significant historical resources for present and future generations as museums or historical parks.

#### **Policies**

4. Develop a multiple use (i.e. hiking, equestrian, bicycle) trail system to:
  - d. Link together school facilities, parks, community buildings, and other community-oriented public services, waterways and major vista locations with residential developments.
  - e. Incorporate trails into public and utility corridors, such as power transmission line easements, railroad rights-of-way and irrigation district easements.
  
11. Encourage compatible recreational use of riparian areas along streams and creeks in the area wherever feasible.
  
12. Natural open space recreation land within the planning area should be carefully managed and its uses controlled to ensure that vegetation, soil, wildlife, and visual qualities are protected and, where necessary, enhanced. The concepts and principles of the Placer County Conservation Element should be observed in park use and management.

#### ***Granite Bay Community Plan***

The Recreation Element of the Granite Bay Community Plan is intended to serve as a guiding resource for developing facilities to meet the needs of existing and future residents in the area, and for outlining tools for implementing the plan. The following goals and policies are applicable to recreation areas in the vicinity of the project area (Placer County, 2012).

#### **Goal- Recreation Element**

2. Designate, protect and conserve the natural resources of the area where such resources can add to the variety of recreation activities in the area.

**Policies**

1. Develop, operate and maintain park facilities in accordance with park standards contained in the General Plan.
  
7. Encourage compatible recreational uses near riparian areas along streams and creeks where feasible.

***Folsom Lake State Recreation Area General Plan/Resource Management Plan***

Under the California Public Resources Code, SRAs are "...selected and developed to provide multiple recreational opportunities to meet other than purely local needs. The areas shall be selected for their having terrain capable of withstanding extensive human impact and for their proximity to large population centers, major routes of travel, or proven recreational resources such as manmade or natural bodies of water (PRC § 5019.59)."

The Declaration of Purpose for the Folsom Lake SRA as outlined in the General Plan/Resource Management Plan is as follows:

"To preserve and make available to the people for their enjoyment and inspiration the outstanding recreational opportunities provided by Folsom Lake and Lake Natoma on the American River system, including aquatic and upland recreational activities and facilities ranging from high-use areas in developed settings to low-use areas in primitive settings, and to provide for the protection, restoration and interpretation of natural and cultural resource values. These resource values include the oak woodlands and savanna, riparian woodlands, chaparral, vernal pool and other characteristic habitats of the foothills and plateaus surrounding these reservoirs and the rich number and diversity of pre-historic archaeological and historic gold mining and settlement sites and resources along the American River system. The reservoirs, river canyons and surrounding rolling foothills, bluffs and uplands all form an important open space and scenic resource for the region" (California State Parks, 2007).

**3.10.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPS**

**Methodology**

Potential impacts to recreation areas in the vicinity of the Proposed Project have been evaluated based on review of existing recreation areas and consistency of the Proposed Project with adopted plans' goals and policies.

**Thresholds/Basis of Significance**

Criteria for determining the significance of impacts to recreation areas have been developed based on Appendix G of the CEQA *Guidelines* and relevant agency thresholds. For the purposes of this Draft EA/EIR, impacts to recreation areas are considered significant if the Proposed Project would:

### 3.0 Affected Environmental and Environmental Consequences

- 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;
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.; or
- Restrict access or interrupt use of recreational facilities, including open space.

#### Effects Found Not to be Significant

The Initial Study (**Appendix C**) concluded that the Proposed Project would not result in population growth and, therefore, would not increase the use of regional parks and other recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Additionally, the Proposed Project would not require the construction or expansion of recreational facilities. These effects are therefore not considered within this EA/EIR.

#### Project Specific Effects

##### Impact

##### 3.10-1 The project could restrict access or interrupt use of recreational facilities, including open space.

###### ***No Project/No Action Alternative***

Under the No Action Alternative, construction activities and associated potential effects to recreational facilities would not occur. **No Impact.**

###### ***Alternative A Hidden Valley Force Main Alignment***

Construction activities associated with Alternative A have the potential to restrict access or interrupt use of recreational facilities within Placer County. Recreational facilities in the vicinity of the project site include the Folsom SRA, Miners Ravine Nature Reserve, and open space areas. Alternative A would not affect natural resources of, or impede access to, the Folsom SRA. However, construction activities would occur within a designated open space area, as well as directly adjacent to the Miners Ravine Nature Reserve, and thus have the potential to restrict access to or interrupt use of these facilities.

A segment of the force main construction during Phase I would be installed adjacent to an existing SMD 2 sewer line that extends for approximately one mile through an area designated as open space. The force main that would be installed below ground surface adjacent to the existing SMD 2 sewer alignment. The implementation of project design and mitigation measures/BMPs discussed in **Section 3.0** would minimize potential impacts to natural resources within the open space area, and would ensure that potential effects associated with recreational use and enjoyment of the open space area would be less than significant.

### 3.0 Affected Environmental and Environmental Consequences

The Phase II segment of the pipeline installed within the Auburn-Folsom Road right-of-way (ROW) would border the entire eastern boundary of the Miners Ravine Reserve. Construction activities would take place within approximately 20 feet of the entrance to the nature trail that extends through the recreational facility. Construction activities would also involve using the Miners Ravine Nature Reserve access parking lot as a staging area which would increase traffic at the entrance to the Reserve; see **Section 3.11** for additional information regarding traffic. The parking lot is approximately 18,000 square ft. and located directly northwest of Auburn-Folsom Road. As a staging area, this parking lot would be used for storing pipe and other materials, construction equipment, and other necessary items. The Proposed Project could temporarily restrict access to the Miners Ravine Nature Reserve and parking lot, which would interrupt use and enjoyment of the facility. Implementation of **Mitigation Measure 3.10-1** would minimize potential impacts to public access of the Miners Ravine Nature Reserve.

The Proposed Project would not prevent the development of future recreational facilities or restrict future recreational uses in riparian areas within the project area. Overall, the Proposed Project would be consistent with the recreation goals and policies of the Placer County General Plan, Horseshoe Bar/Penryn Community Plan and Granite Bay Community Plan. With the implementation of mitigation/BMPs, potential effects associated with access to, and use of, recreational facilities are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Construction activities that have the potential to impact recreation areas, recreation facilities, open space areas, and natural resources under Alternative B would be similar to those discussed under Alternative A. Under Alternative B, no construction activities would take place within the open space area north of Willow Lane; however, the same potential effects associated with access to the Miners Ravine Nature Reserve discussed under Alternative A would occur under Alternative B. With the implementation of **Mitigation Measure 3.10-1**, potential effects associated with access to, and use of, recreational facilities are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Potential effects to recreation areas, recreation facilities, open space areas, and natural resources under Alternative C would be the similar to those discussed under Alternative A, with the exception that only 900 feet of construction would take place with the open space area north of Willow Lane. With the implementation of **Mitigation Measure 3.10-1**, potential effects associated with access to, and use of, recreational facilities are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

**Mitigation Measures/BMPs**

***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.10-1: Maintain Visitor Access and Parking for the Miners Ravine Nature Reserve.** The following provision shall be included within the Traffic Control Plan developed pursuant to **Mitigation Measure 3.11-1a**: a portion of the Miners Ravine Nature Reserve parking lot shall be reserved for visitor parking, and access to the Reserve shall be maintained at all times.

**Cumulative Effects**

**3.10-2 The project could result in cumulative effects associated with restricted access or interrupted use of recreational facilities, including open space.**

***No Project/No Action Alternative***

Under the No Action Alternative, construction activities and associated potential effects to recreational facilities would not occur. No cumulative effects to recreational facilities would occur. **No Impact.**

***Alternative A Proposed Project, Alternative B and Alternative C***

Implementation of project design and mitigation measures would ensure that the proposed project alternatives would not result in cumulative impacts to existing recreation areas and would not prevent future development of recreation areas. **Less-Than-Significant Impact with Mitigation.**

**Mitigation Measures/BMPs**

***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.10-2: Implement Mitigation Measure 3.10-1: Maintain Visitor Access for the Miners Ravine Nature Reserve.**

## 3.11 TRAFFIC AND CIRCULATION

This section addresses the potential for the proposed project alternatives to impact transportation and circulation. Following an overview of the existing traffic setting in **Subsection 3.11.1** and the relevant regulatory setting in **Subsection 3.11.2**, project-related effects and recommended mitigation measures/BMPs are presented in **Subsection 3.11.3**.

### 3.11.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

#### Existing Roadway Network

The project site is located southeast of the town of Loomis in western Placer County (County). The Town of Loomis lies midway between the City of Citrus Heights and the City of Auburn. Neighboring cities include Rocklin to the south and Penryn to the north. Access to the project area is primarily provided by Auburn-Folsom Road on the existing roadway network shown in **Figure 1-2**. Key roadways that would provide circulation to and from the project area are described below.

*Interstate 80 (I-80)* is a six-lane east/west oriented freeway that provides regional access to the project site. I-80 is designated as a freeway in the Placer County 2035 Regional Transportation Plan and is under the jurisdiction of the California Department of Transportation (Caltrans).

*Auburn-Folsom Road* is a two lane north/south oriented major arterial that provides area wide access to the project site. Auburn-Folsom Road extends from Interstate 50 (I-50) to the south to Interstate 80 (I-80) to the north. Auburn-Folsom Road serves regional travel between the Granite Bay area, northern Sacramento County and the City of Folsom to the Auburn area.

*King Road* is a two lane roadway which serves east/west travel for the Town of Loomis to Auburn-Folsom Road. King Road crosses I-80 to the east and extends into the Town of Loomis.

*Dick Cook Road* is a two lane east/west collector roadway which extends from Val Verde Road on the east to Auburn-Folsom Road on the east.

*Joe Rodgers Road* is a two lane north/south collector roadway which extends from Douglas Boulevard on the south to Auburn-Folsom Road on the north.

*Willow Lane* is a two lane east/west minor collector roadway which extends from Auburn-Folsom Road west approximately 0.13 miles.

*Val Verde Road* is a two lane north/south collector roadway which extends from Wells Avenue to King Road approximately 1.5 miles west of Auburn-Folsom Road.

## **Bikeways, Pedestrian Facilities, Public Transportation System**

There are no bicycle pathways/routes in the immediate vicinity of the project site or along anticipated haul routes. However, Auburn-Folsom Road has wide shoulders which accommodate numerous walkers, joggers, bicyclists, and horseback riders. There are no pedestrian sidewalk facilities within the vicinity of the Placer County Sewer Maintenance District 3 (SMD 3) Wastewater Treatment Plant (WWTP) site or proposed force main alternative alignments. There is no public transportation which services the project site.

### **3.11.2 REGULATORY FRAMEWORK**

#### **California Department of Transportation**

The California Department of Transportation (Caltrans) manages interregional transportation, including the management and construction of the California highway system. In addition, Caltrans is responsible for the permitting and regulation of state roadways. The project study area includes one freeway, I-80, which falls under Caltrans' jurisdiction. Caltrans establishes performance standards that apply to specific routes and publishes those standards in transportation concept reports (TCRs). Performance standards in TCRs are often expressed as level of service (LOS) standards. LOS standards are established based on current operating conditions, surrounding land uses, local policies, and current plans for improvement on the facility.

#### **Placer County General Plan**

The Placer County General Plan's Transportation and Circulation Element contains the following applicable transportation policy (Placer County, 2008a):

##### **Goal**

- 3.A To provide for the long-range planning and development of the County's roadway system to ensure the safe and efficient movement of people and goods.

##### **Policy**

- 3.A.3 The County shall require that roadway rights-of way be wide enough to accommodate the travel lanes needed to carry long-range forecasted traffic volumes (beyond 2010), as well as any planned bikeways and required drainage, utilities, landscaping, and suitable separations. Minimum right-of-way criteria for each class of roadway in the County are specified in Part I (on page 29 of the General Plan).

#### **Horseshoe Bar/Penryn Community Plan**

The 2005 Horseshoe Bar/Penryn Community Plan is a guiding document for development in the vicinity of the SMD 3 WWTP. Policies in the Horseshoe Bar/Penryn Community Plan, Circulation Element that are relevant to traffic and circulation in the vicinity of the SMD 3 WWTP are summarized as follows:

#### Goals: Circulation Element

2. Transportation facilities shall be sufficient to allow safe, pleasant, and reasonably convenient travel among all areas within the Horseshoe Bar/Penryn Community Plan Area.
  
6. The Capital Improvement Program (CIP), sufficient to ensure level of service (LOS) C, shall be implemented as development occurs in the community plan area.

#### Policy

6. The level of service (LOS) on major roadways (i.e., arterial and collector routes) and intersections shall be a Level "C" or better, except within one half mile of a State Highway, in which case the LOS standard shall be "D". The first priority for available funding shall be the correction of potential hazards.

#### D.2 Existing Roadway Conditions

- a. Traffic Operations. Traffic operations are quantified in terms of level of service (LOS). LOS is presented in terms of a letter grade ranging from LOS "A" to LOS "F", representing progressively worsening traffic operating conditions. LOS "A" is characterized by free-flow conditions and little or no delay, while LOS "F" represents forced traffic flow conditions and excessive delays. As discussed above, all of the County roadways within the Plan Area are two lane rural roadways. The level of service on these roadways is determined by using level of service threshold volumes developed as part of the Placer County General Plan (1994). A two lane rural roadway over level terrain has a level of service C volume threshold of 4,800 vehicles per day per lane. An arterial roadway with low access control has a level of service C volume threshold of 6,000 vehicles per day per lane. The existing level of service is presented in Table 1 (on page 138 of the Horseshoe Bar/Penryn Community Plan, Circulation Element). As shown in Table 1, Plan Area roadways currently experience very good operating conditions indicative of LOS A and B.

### Granite Bay Community Plan

The Granite Bay Community Plan establishes goals and policies for circulation in the vicinity of the proposed force main (Placer County, 2012). Applicable goals and policies are as follows:

#### Goal: Circulation Element

1. To provide a balanced system of roadways that ensure safe and efficient movement of local and through traffic, accommodate area growth, retain the area's rural and scenic qualities, and accommodate pedestrian and cycle traffic.

#### Policies

3. The level of service (LOS) on major roadways (i.e., arterial and collector routes) and intersections shall be at Level "C" or better during the A.M. and/or P.M. peak hour. The exceptions to this are intersections along Auburn-Folsom from Douglas Boulevard southerly, and along Douglas Boulevard from Auburn-Folsom Road westerly, where the level of service shall be LOS "E" or better during the A.M. and/or P.M. peak hour.

## Placer County Transportation Planning Agency

The Placer County Transportation Planning Agency (PCTPA) is the state-designated regional transportation planning agency for the County. PCTPA plans and programs the County's Federal and state transportation funds. The most recent transportation planning and programming decisions are presented in the Regional Transportation Plan 2027 (PCTPA 2005). The closest regionally significant roadway recognized by PCTPA is I-80 located approximately 3 miles east of the WWTP.

### 3.11.3 ENVIRONMENTAL CONSEQUENCES/IMPACTS AND MITIGATION MEASURES/BMPs

#### Methodology

This section identifies any impacts to transportation and traffic that could occur from construction and operation of the proposed project alternatives. Impacts to transportation and traffic were analyzed based on an examination of the project site and published information regarding transportation and traffic within the project area, and comparison of these factors to the significance criteria listed below. If significant impacts may occur, mitigation measures are included to increase the compatibility and safety of the proposed project alternatives and reduce impacts to less-than-significant levels.

The potential traffic impacts of the Proposed Project are primarily due to short term construction activities along roadways under the jurisdiction of the County of Placer. Because a traffic study is not warranted due to small amount of project-related traffic, this analysis uses a volume to capacity ratio to assess the potential for traffic impacts in the vicinity of the Proposed Project. The County General Plan and the Granite Bay Community Plan do not provide an acceptable volume to capacity ratio threshold for roadways in the vicinity of the Proposed Project; however, as described above, the Horseshoe Bar/Penryn Community Plan does. Therefore, this analysis uses the Horseshoe Bar/Penryn Community Plan threshold cited above.

The traffic analysis within this EA/EIR is based on the following assumptions:

- 100 one-way construction worker trips per day (50 in and 50 out).
- Eight round trips (16 one-way trips) material truck deliveries per day.
- Round trip material haul distance and truck material capacity is assumed to be 14 miles and 20 cubic yards (cy), respectively.
- Between October 2012 and May 2014 approximately 4,500 cy of pipe bedding will be imported and 6,000 cy of soil will be exported, resulting in 525 truck trips.
- Between June 2014 and October 2014 5,000 cy of demolition materials will be removed from the WWTP site, resulting in 250 truck trips.
- During Phase II approximately 1,200 cy of pipe bedding will be imported to the project site and 1,600 cy of soil will be exported, resulting in 140 truck trips.
- Truck delivery and haul routes would use Auburn-Folsom Road to Dick Cook Road, Val Verde Road, Joe Rodgers Road, Douglas Boulevard, or Willow Lane depending on the location of construction.

**Trip Generation & Distribution**

Based on the assumptions noted above and most current count information available, **Tables 3.11-1** shows the expected trips generated by construction. The trip distribution would depend on where construction activities occur (i.e. at the WWTP or along the force main alignment). However, trips would mainly be distributed on Auburn-Folsom Road with the remainder of project-related traffic being distributed on Dick Cook Road, Val Verde Road, Joe Rodgers Road, Douglas Boulevard, or Willow Lane depending on the location of construction activities.

**TABLE 3.11-1**  
ESTIMATED AVERAGE DAILY TRIPS (ADT)

ACTIVITY		In	Out
<b>Construction</b>			
	Construction Worker Trips	50	50
Trucks:	Soil/Pipe Bedding/Demolition Hauling	2	2
	Material Delivery (pipes, fitting, etc.)	6	6
	<i>Total Directional Trips</i>	<i>58</i>	<i>58</i>
<b>Total Construction Trips per Day</b>		<b>116</b>	

**Thresholds/Basis of Significance**

Criteria for determining the significance of impacts to traffic and circulation have been developed based on *Appendix G* of the California Environmental Quality Act's (CEQA) *Guidelines* and relevant agency guidelines. Impacts to the existing transportation network would be considered significant if the proposed project alternatives would:

- 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.
- 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;
- Result in a change in area traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; and/or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

## Effects Found Not to be Significant

As discussed within the Initial Study for the proposed project included within **Appendix C**, the Proposed Project would not result in a change in air traffic patterns or roadway design features. The Proposed Project would have no impacts to parking or alternative transportation. Therefore, further discussion of these issue areas is not included within this EA/EIR.

## Project Specific Impacts

### *Construction Impacts*

#### Impact

- 3.11-1 Construction activities within County road right-of-ways could adversely affect traffic and transportation conditions in the project area, resulting in a conflict with applicable General Plan policies establishing measures of effectiveness for the performance of the circulation system.**

#### *No Project/No Action Alternative*

Under the No Action Alternative, no construction-related temporary traffic effects would occur because the project would not be constructed. Existing worker vehicle trips from operation and maintenance activities at the WWTP would continue (estimated to be approximately six daily one-way trips). **No Impact.**

#### *Alternative A Hidden Valley Force Main Alignment*

Alternative A may temporarily affect the local roadway system due to construction activities associated with the force main alignment occurring within the right-of-way (ROW) of Auburn-Folsom Road, Joe Rodgers Road and Willow Lane. During Phase I, trenching activities associated with installation of the force main would occur within Auburn-Folsom Road ROW from the WWTP boundary, for approximately 13,100 linear feet (LF), to near the intersection of Twin Rocks Road, as well as from the intersection of Willow Lane north for approximately 250 LF to manhole (MH) F15-19. During Phase II, which is expected to be constructed in 2021, trenching activities would occur within approximately 4,850 LF of the Auburn-Folsom Road and Joe Rodgers Road ROW from MH F15-19 to MH E14-48 near the intersection of Itchy Acres Road. The total length of construction within County road ROWs under Alternative A would be approximately 18,100 LF (3.5 miles). The proposed force main alignment would extend primarily through paved and unpaved road shoulders, but in some areas would be installed within or directly adjacent to traffic lanes in order to avoid existing buried utilities. Prior to construction of the force main, staging areas would be prepared for materials and equipment delivery and storage. Staging areas would be established in an area near construction zones that are easily accessible, and would be generally located along Auburn-Folsom Road (refer to **Figure 2-3**).

Trenching activities and the placement of the pipes would temporarily disrupt existing transportation and circulation patterns in the vicinity of the construction site. Construction in the paved roadway or unpaved ROW could require a reduction of travel lane widths and slowing of

### 3.0 Affected Environmental and Environmental Consequences

traffic and/or rerouting of traffic. If the number of travel lanes through a construction zone were to be reduced during peak traffic periods (typically between 7:00 am to 8:30 am and 3:30 pm to 6:00 pm), the level of service of Auburn-Folsom Road or Joe Rodgers Road may be reduced below acceptable levels in the County General Plan, Horseshoe Bar/Penryn Community Plan, or Granite Bay Community Plan; however, traffic volumes outside peak periods typically would be low enough to allow for the accommodation of traffic flow without significant delays resulting from construction.

Phase I construction within the Auburn-Folsom Road ROW would occur over a period of 12 months, and Phase II construction within the Auburn-Folsom Road and Joe Rodgers Road ROW would occur over a period of 6 months, during which time, temporary lane closures for varying durations at different locations would occur along the force main alignment. Traffic impacts due to construction have the potential to reduce the level of service on these County roadways due to lane closures and reduction in travel speeds through construction zones. However, with the implementation of **Mitigation Measures 3.11-1a** and **b**, project related traffic effects from construction activities within the ROW would be reduced to less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative B Road Right-of-Way Alignment***

Under Alternative B, traffic effects associated with construction activities occurring within County road ROW would be greater than those described for Alternative A, due to the additional 5,300 LF of proposed construction activities occurring within the Auburn-Folsom ROW between the intersection of Twin Rocks Road and MH F15-19 during Phase I. During Phase I, trenching activities associated with installation of the force main would occur within Auburn-Folsom Road ROW from the WWTP boundary for approximately 18,400 LF to MH F15-19. During Phase II, which is expected to be constructed in 2021, trenching activities would occur within approximately 4,850 LF of the Auburn-Folsom Road and Joe Rodgers Road ROW from MH F15-19 to MH E14-48 near the intersection of Itchy Acres Road. The total length of construction within County road ROWs under Alternative B would be approximately 23,250 LF (4.4 miles).

Phase I construction within the Auburn-Folsom Road ROW would occur over a period of 14 months (approximately 2 months longer than Alternative A), and Phase II construction within the Auburn-Folsom Road and Joe Rodgers Road ROWs would occur over a period of 6 months, during which time, temporary lane closures for varying durations at different locations would occur along the force main alignment. Traffic impacts due to construction have the potential to reduce the level of service of these County roadways due to lane closures and reduction in travel speeds through construction zones. However, with the implementation of **Mitigation Measures 3.11-1a** and **b**, project related traffic effects from construction activities within the ROW would be reduced to less than significant. **Less-Than-Significant Impact with Mitigation.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Under Alternative C, traffic effects associated with construction activities occurring within County road ROWs would be greater than those described for Alternative A, due to the additional 5,300 LF of proposed construction activities occurring within the Auburn-Folsom ROW between the intersection of Twin Rocks Road and MH F15-19 during Phase II. Effects from construction within the ROW would be identical to Alternative B, except the extension of the force main between Twin Rocks Road and MH F15-19 would be delayed until Phase II. The total linear feet of construction within County road ROWs under Alternative B would be approximately 23,250 LF (4.4 miles).

Phase I construction within the Auburn-Folsom Road ROW would occur over a period of 12 months, and Phase II construction within the Auburn-Folsom Road and Joe Rodgers Road ROWs would occur over a period of 8 months, during which time, temporary lane closures for varying durations at different locations would occur along the force main alignment. Traffic impacts due to construction have the potential to reduce the level of service of these County roadways due to lane closures and reduction in travel speeds through construction zones. However, with the implementation of **Mitigation Measures 3.11-1a** and **b**, project related traffic effects from construction activities within the ROW would be reduced to less than significant. **Less-Than-Significant Impact with Mitigation.**

#### **Mitigation Measures/BMPs**

##### ***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.11-1a: Prepare and Implement a Traffic Control/Traffic Management Plan.** The County's construction contractor shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the Placer County Department of Public Works prior to construction in County public road ROW. The traffic control plan shall be submitted to the Placer County Department of Public Works no less than 45 days prior to construction in the County public road right-of-way. The traffic control plan shall be prepared in accordance with professional traffic engineering standards and in compliance with the requirements of Placer County's encroachment permit requirements. The traffic control plan shall require that at least one lane will remain open during construction and that there will be no road closure. The traffic control plan may include, but not be limited to, the following measures:

- Identify all access and parking restriction, pavement markings and signage requirements (e.g., speed limit, temporary loading zones).
- Identify specific construction methods to maintain traffic flows on affected streets.
- Maintain the maximum amount of travel lane capacity during non-construction periods and provide flagger control at sensitive sites to manage traffic control and flows.
- Limit the construction work zones to widths that, at a minimum, shall maintain alternate one-way traffic flow past the construction zones.

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- Limit one-way traffic control to off-peak hours (8:30 am to 3:30 pm).
- Post advanced warning of construction activities to allow motorists to select alternative routes in advance.
- Prepare appropriate warning signage and lighting for construction zones.
- Require construction crew vehicles to park within designated staging areas.
- Maintain steel trench plates at construction sites to restore access across open trenches to minimize disruption of access to driveways and adjacent land uses. Construction trenches in the street shall not be left open after work hours.
- Restore streets disturbed by the Proposed Project to their original condition or better, and sweep the roads at the end of each day.
- Require coordination of all construction activities with local emergency service providers at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times.

**Mitigation Measure 3.11-1b: Inform the Public of Lane Closures and Detours.** The County shall inform the public and local bicycling clubs of scheduled lane closures and/or detours (if required) through public outreach such as attendance at the Municipal Advisory Council (MAC) and postings in the local newspapers.

#### Impact

**3.11-2 The temporary increase in traffic from construction worker vehicles and the import and export of materials could adversely affect traffic and transportation conditions in the project area, resulting in a conflict with applicable County General Plan policies establishing measures of effectiveness for the performance of the circulation system.**

#### ***No Project/No Action Alternative***

Under the No Action Alternative, no construction-related temporary traffic effects would occur because the project would not be constructed. Existing worker vehicle trips from operation and maintenance activities at the WWTP would continue (estimated to be approximately 6 daily one-way trips). **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Construction of Alternative A would generate traffic associated with the daily arrival and departure of construction workers, trucks hauling equipment, and materials to the construction site, and truck hauling materials away from the construction site for landfill disposal or recycling. During Phase I, simultaneous construction of the force main and pump station is conservatively estimated to require a maximum number of 50 workers per day, resulting in approximately 100 one-way worker trips per day. Construction traffic would include the transportation of oversize loads, such as trucks carrying pipes and/or heavy-duty equipment. It is estimated that an average of four one-way soil/demolition material/pipe bedding haul truck trips per day and twelve

### 3.0 Affected Environmental and Environmental Consequences

material (pipe, pipe fittings, equipment, etc.) delivery truck trips per day would occur during Phases I and II, for a total of 16 truck trips per day. Project-generated worker and truck trips have the potential to increase traffic relative to existing volumes on transportation routes by up to 116 vehicles per day. Short-term increase in construction vehicle trips may significantly affect the traffic flow on local roadways.

The existing traffic on Auburn-Folsom Road is 10,200 ADT between Joe Rodgers Road and Cavitt-Stallman Road and 5,300 ADT between Cavitt-Stallman Road and Dick Cook Road (Placer County, 2012). According to the methodology described in **Section 3.11.2**, a two lane arterial roadway, such as Auburn-Folsom Road, would operate acceptably if it contained less than 6,000 vehicles per day per lane. The addition of project related traffic would result in 10,316 vehicles per day on Auburn-Folsom Road between Joe Rodgers Road and Cavitt-Stallman Road, or approximately 5,158 vehicles per day per lane, which is an acceptable volume of traffic under the established thresholds.

During Phase II the force main would be constructed within the ROW of Auburn-Folsom Road and Joe Rodgers Road. The maximum number of daily construction trips during Phase II would be 116 trips per day. In 2020, Joe Rodgers Road has an estimated 1,800 trips per day (Placer County, 2003). According to the methodology described in **Section 3.11.3**, a two lane rural roadway would operate acceptably under the established threshold, if it contained less than 4,800 vehicles per day per lane or 9,600 vehicles per day on Joe Rodgers Road. Joe Rodgers Road would operate with 1,916 vehicles per day with project-related construction traffic which is an acceptable volume of traffic under the established thresholds.

Because the increase in traffic volumes caused by construction would not exceed the capacity of affected roadways, the additional construction-related vehicle trips that would be generated from employee vehicles and construction equipment associated with project construction would not result in considerable changes in the performance of the circulation system. Therefore, these additional trips would not result in a conflict with an applicable plan, ordinance, or policy related to traffic circulation. This impact would be less than significant. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

The maximum number of daily construction traffic trips generated by Alternative B would be identical to Alternative A. Because the increase in traffic volumes caused by construction would not exceed the capacity of affected roadways, the additional construction-related vehicle trips that would be generated from employee vehicles and construction equipment associated with project construction would not result in considerable changes in the performance of the circulation system. Therefore, these additional trips would not result in a conflict with an applicable plan, ordinance, or policy related to traffic circulation. This impact would be less than significant. **Less-Than-Significant Impact.**

***Alternative C Hidden Valley Pipe Upsizing***

The maximum number of daily construction traffic trips generated by Alternative C would be identical to Alternative A. Because the increase in traffic volumes caused by construction would not exceed the capacity of affected roadways, the additional construction-related vehicle trips that would be generated from employee vehicles and construction equipment associated with project construction would not result in considerable changes in the performance of the circulation system. Therefore, these additional trips would not result in a conflict with an applicable plan, ordinance, or policy related to traffic circulation. This impact would be less than significant.

**Less-Than-Significant Impact.**

**Impact**

**3.11-3 Construction traffic generated by the Proposed Project has the potential to result in inadequate emergency access.**

***No Project/No Action Alternative***

Under the No Action Alternative, no construction-related effects to emergency access would occur because the project would not be constructed. Existing worker vehicle trips from operation and maintenance activities at the WWTP would continue (estimated to be approximately six daily one-way trips). **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Construction of Phase I of Alternative A, would occur over a period of up to two years and four months and Phase II would occur over a period of six months at various locations along the force main route and WWTP site. During construction, periodic temporary lane closures on roadways near the pump station and along the force main route may occur. These lane closures due to construction activities have the potential to impede emergency vehicles. Implementation of **Mitigation Measures 3.11-3** would require that all construction activities are coordinated with affected public agencies and local emergency service providers to avoid causing delays in emergency access. Therefore, impacts related to emergency access are considered less than significant with mitigation. **Less-Than-Significant Impact with Mitigation.**

***Alternative B Road Right-of-Way Alignment***

Lane closures due to construction of Alternative B would be the greater than Alternative A due to the additional 5,300 LF of proposed construction activities occurring within the Auburn-Folsom ROW between the intersection of Twin Rocks Road and MH F15-19 during Phase I; however, with the implementation of **Mitigation Measures 3.11-3**, emergency access related impacts are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

***Alternative C Hidden Valley Pipe Upsizing***

Lane closures due to construction of Alternative C would be greater than Alternative A due to the additional 5,300 LF of proposed construction activities occurring within the Auburn-Folsom ROW

between the intersection of Twin Rocks Road and MH F15-19 during Phase II; however, with the implementation **Mitigation Measures 3.11-3**, emergency access related impacts are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

**Mitigation Measures/BMPs**

***Alternative A Proposed Project, Alternative B, and Alternative C***

**Mitigation Measure 3.11-3: Implement Mitigation Measure 3.11-1a, Prepare and Implement a Traffic Control/Traffic Management Plan, and Mitigation Measure 3.11-1b, Inform the Public of Lane Closures and Detours.**

**Impact**

**3.11-4 Construction of the Proposed Project would result in damage to roadways in the project corridor.**

***No Project/No Action Alternative***

Under the No Action Alternative, no construction-related roadway damage would occur because the project would not be constructed. Existing worker vehicle trips from operation and maintenance activities at the WWTP would continue (estimated to be approximately 6 daily one-way trips). **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

The force main would be buried beneath the roadway or road shoulders within the project alignment (refer to **Figure 2-2**). The roadway pavement would be removed and a trench dug for the force main. The trench would be backfilled and the damaged roadway would be repaved. Because the trenches would be filled and repaved, the impacts would be short-term (during construction only). Trucks delivering sand or gravel used to fill basins at SMD 3 have the potential to degrade roadways along haul routes due the heavy loads. This is a potentially significant impact. Implementation of **Mitigation Measure 3.11-4** would result in the repair of any roadway or ROW damage that occurs during construction of alternative A resulting in a less than significant impact. **Less-Than-Significant Impact with Mitigation.**

***Alternative B Road Right-of-Way Alignment***

The potential for damage to roadways due to construction of Alternative B would be the greater than Alternative A due to the additional 5,300 LF of proposed construction activities occurring within the Auburn-Folsom ROW between the intersection of Twin Rocks Road and MH F15-19 during Phase I; however, with the implementation **Mitigation Measure 3.11-4** roadway related impacts are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

***Alternative C Hidden Valley Pipe Upsizing***

The potential for damage to roadways due construction of Alternative C would be the greater than Alternative A due to the additional 5,300 LF of proposed construction activities occurring within the Auburn-Folsom ROW between the intersection of Twin Rocks Road and MH F15-19 during Phase II; however, with the implementation **Mitigation Measures 3.11-4** roadway related impacts are considered less than significant. **Less-Than-Significant Impact with Mitigation.**

**Mitigation Measures/BMPs**

***Alternatives A, B, and C***

**Mitigation Measure 3.11-4: Implement Mitigation Measure 3.11-1a, Prepare and Implement a Traffic Control/Traffic Management Plan, and Mitigation Measure 3.11-1b, Inform the Public of Lane Closures and Detours.**

***Operation Impacts***

**Impact**

**3.11-5 Operation and maintenance of the pump station and force main could generate trips, which could affect traffic flow.**

***No Project/No Action Alternative***

Under the No Action Alternative, no increase in operational- or maintenance-related traffic would occur because the project would not be constructed. Existing worker vehicle trips from operation and maintenance activities at the WWTP would continue (estimated to be approximately 6 daily one-way trips). **No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

The pump station and force main under Alternative A would require routine maintenance activities and inspection trips, estimated at 2 daily one-way trips. Maintenance activities and inspection trips on area roadways would decrease slightly over existing traffic levels due to the decommissioning of the existing WWTP; therefore, there would be no traffic impacts from the maintenance and inspection of the pump station and force main. **No Impact.**

***Alternative B Road Right-of-Way Alignment***

Operational trips under Alternative B would be identical to Alternative A; therefore, traffic impacts from the maintenance and inspection of the pump station and force main would be less than significant. **No Impact.**

***Alternative C Hidden Valley Pipe Upsizing***

Operational trips under Alternative B would be identical to Alternative A; therefore, traffic impacts from the maintenance and inspection of the pump station and force main would be less than significant. **No Impact.**

## Cumulative Impacts

### Impact

- 3.11-6 Traffic generated by construction of the Proposed Project in combination with cumulative development and construction in the project area has the potential to increase traffic on affected roadways beyond an acceptable capacity.**

#### ***No Project/No Action Alternative***

Under the No Action Alternative, no construction traffic would occur because the project would not be constructed. The cumulative condition to the transportation environment would remain the same, but no additional cumulative impacts are expected. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

Cumulative projects in the vicinity of the project site, including growth resulting from build-out of the County's General Plan or the Community Plans, could result in adverse impacts to traffic and circulation. The analysis of impacts to roadways as discussed under **Impact 3.11-2** considered future cumulative traffic levels on area roadways as described in the Southeast Placer County Transportation Study. As discussed, the project would not result in an increase in traffic above the capacity of affected roadways. Operation of Alternative A would result in a decrease in operational and maintenance worker trips as a result of decommissioning the SMD 3 WWTP. Therefore, Alternative A's incremental contribution cumulative traffic impacts would be considered less than significant. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

The potential for cumulative traffic impacts under Alternative B would be the same as Alternative A; therefore, Alternative B's incremental contribution cumulative traffic impacts would be considered less than significant. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

The potential for cumulative traffic impacts under Alternative C would be the same as Alternative A; therefore, Alternative C's incremental contribution cumulative traffic impacts would be considered less than significant. **Less-Than-Significant Impact.**

## 3.12 UTILITIES AND SERVICE SYSTEMS

This section addresses the potential for the proposed project alternatives to impact utilities and service systems. Following an overview of the existing setting in **Subsection 3.12.1** and the relevant regulatory setting in **Subsection 3.12.2**, project-related impacts and recommended mitigation measures/BMPs, if any, are presented in **Subsection 3.12.3**.

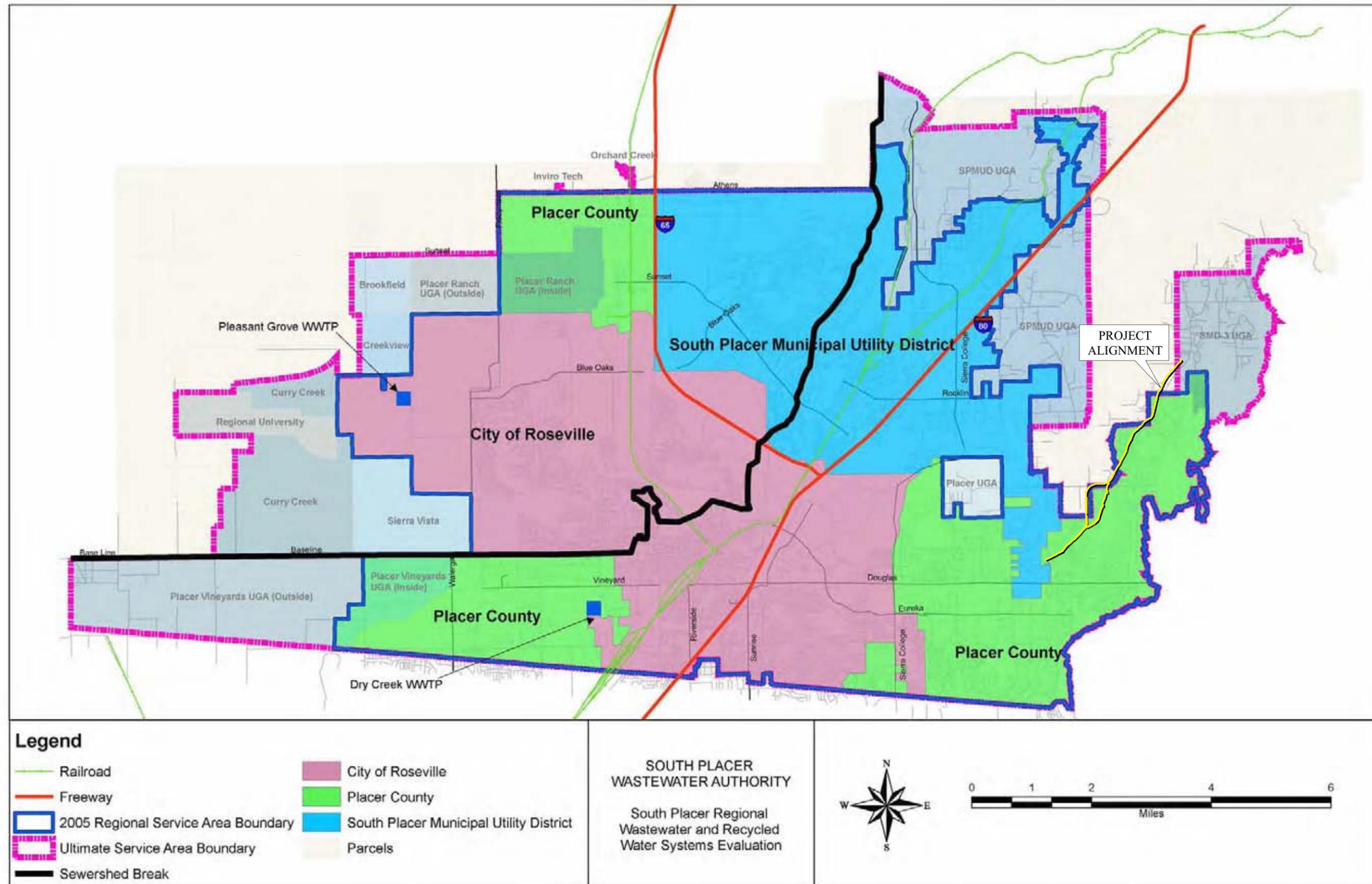
### 3.12.1 AFFECTED ENVIRONMENT/ENVIRONMENTAL SETTING

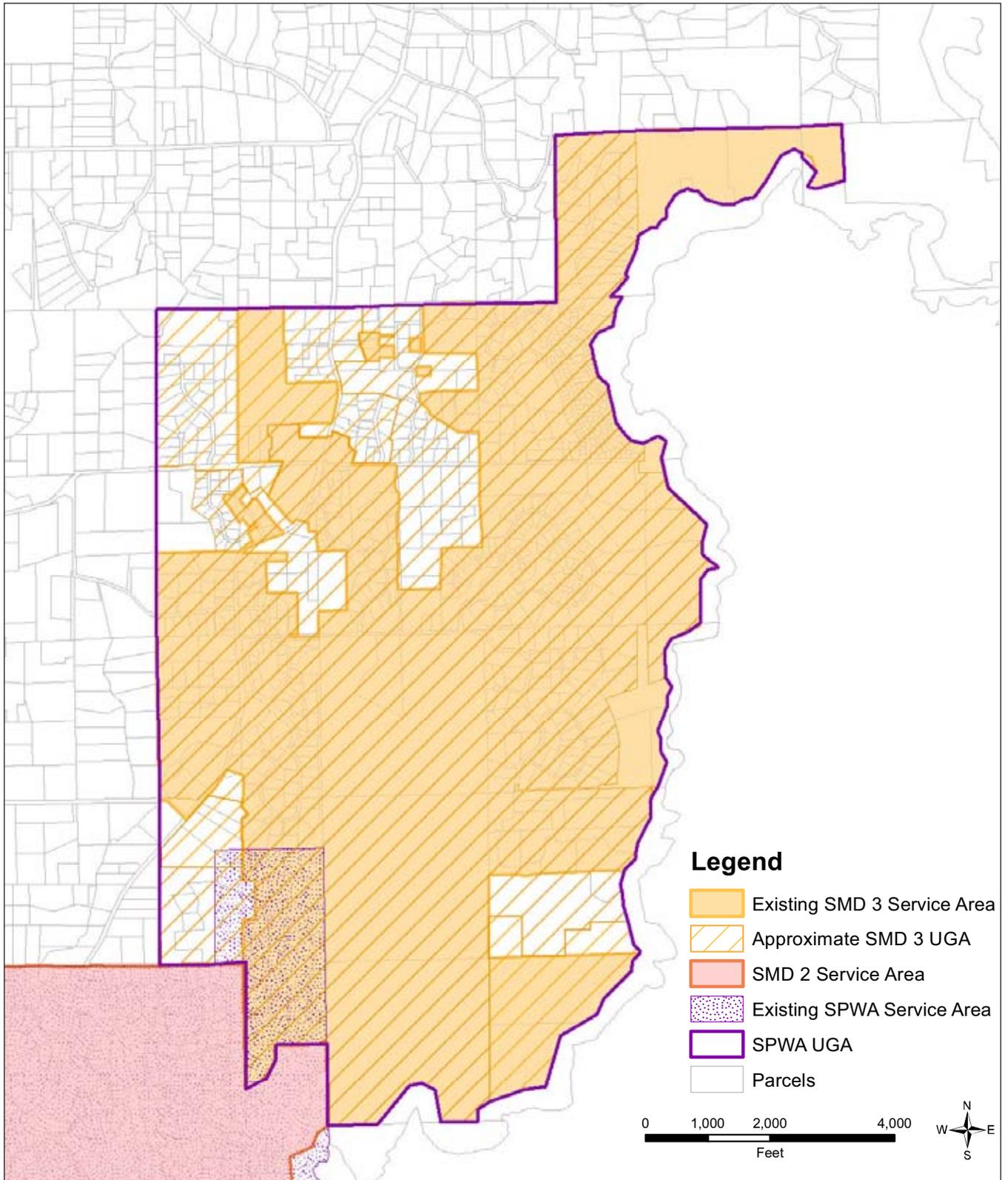
#### Wastewater

The South Placer Wastewater Authority (SPWA), which operates under a Joint Powers Agreement (JPA) between the City of Roseville, South Placer Municipal Utility District (SPMUD), and Placer County (County), is primarily a funding authority responsible for funding for ongoing wastewater treatment operations and capital improvement projects and providing service for areas inside its service area boundaries. The 2009 SPWA Systems Evaluation Update Report was prepared to provide SPWA with a baseline characterization of its wastewater and recycled water systems for existing and buildout conditions, and to provide a long-term planning tool for identifying and implementing capital improvement projects (SPWA, 2009). The SPWA's existing and ultimate service area boundaries identified in the Systems Evaluation Update Report are shown in **Figure 3.12-1**. The City of Roseville, on behalf of the regional partners, owns and operates two regional wastewater treatment facilities: the Pleasant Grove Wastewater Treatment Plant (WWTP) and the Dry Creek WWTP. Additionally, the City of Roseville owns and operates the network of gravity sewers, pump stations, and force mains that serve customers within the City's limits. SPMUD owns and operates gravity sewers, pump stations, and force mains in Rocklin, Loomis, and portions of southern Placer County (SPWA, 2009). The Placer County Department of Facility Services owns, operates and maintains ten separate sanitary sewer systems within the County (Placer County, 2009). As discussed in **Section 2.0**, implementation of the Proposed Project would result in the decommissioning of wastewater treatment facilities within the Sewer Maintenance District (SMD) 3 system, owned and operated by the County, and the construction of a pump station and force main to convey sewage collected within the SMD 3 service area to the Dry Creek WWTP. A figure illustrating the existing and approximate future service area for SMD 3 is provided in **Figure 3.12-2**. Placer County provides municipal services on a first come first serve basis as capacity allows; thus, the future SMD 3 service area illustrated in the figure is approximate based on growth anticipated to occur in accordance with the adopted Horseshoe Bar/Penryn and Granite Bay Community Plans. Wastewater conveyance and treatment facilities associated with the Proposed Project are described in more detail below.

#### ***Dry Creek Wastewater Treatment Plant***

As described above, the Dry Creek WWTP is owned and operated by the City of Roseville. Treatment at the Dry Creek WWTP consists of screening, primary clarification, aeration, secondary clarification, filtering and disinfection. The Dry Creek WWTP operates under National Pollutant Discharge Elimination System (NPDES) waste discharge requirements (WDR; R5-2007-0070) and a Master Reclamation Permit issued by the Central Valley Regional Water Quality Control Board (CVRWQCB) and produces recycled water that meets all the requirements for "full unrestricted reuse" specified by the California Department of Health Services (DHS). Treated effluent is disposed through recycled water irrigation and direct





The future SMD 3 service area scenario shown in this figure is approximate based on growth anticipated to occur in accordance with the adopted Horseshoe Bar/Penryn and Granite Bay Community Plans. It is Placer County's policy to provide municipal services on a first come first serve basis as capacity allows; thus, the ultimate area to be served by SMD 3 may be different from that shown above. This map is not intended to be a depiction of the SMD 3 service area "boundary" but rather, an estimate of future areas that may be served by SMD 3.

### 3.0 Affected Environmental and Environmental Consequences

discharge to Dry Creek, while biosolids are hauled to the Western Regional Sanitary Landfill. The plant is permitted to discharge up to 18 million gallons per day (mgd) average dry-weather flow (ADWF) into Dry Creek under its existing NPDES Permit (No. CA0079502). Recycled water produced at the Dry Creek WWTP is used to irrigate four major golf courses, several parks and street landscaping (SPWA, 2009).

The current ADWF treated at the Dry Creek WWTP is approximately 10.3 mgd. As discussed in greater detail in **Section 4.2**, the SPWA estimated future wastewater flows from growth and future service annexation areas (urban growth areas [UGAs]), including the SMD 3 service area. Buildout ADWF projections for the Dry Creek WWTP sewershed and UGAs are listed in **Table 3.12-1**.

**TABLE 3.12-1**  
BUILDOUT ADWF FOR THE DRY CREEK WWTP SEWERSHED

Description of Area	Buildout ADWF (mgd)
2005 Regional Service Area	16.34
Placer UGA	0.01
Placer Vineyards UGA	2.23
SMD 3 UGA	0.29
SPMUD UGA	1.11
<b>Total ADWF (mgd)</b>	<b>19.98</b>
Source: SPWA, 2009	

Although the Dry Creek WWTP has an ADWF hydraulic capacity of 18 mgd, the plant's existing ADWF treatment capacity is 11.5 mgd. The SPWA Systems Evaluation Report (SPWA, 2009) recommended a number of upgrades to the Dry Creek WWTP and Recycled Water System to accommodate the increase in wastewater loading projected to occur as a result of growth and future service annexation areas, including SMD 3, while meeting its discharge requirements. **Table 3.12-2** summarizes the estimated treatment capacities of planned upgrades to the WWTP. Phase I would involve optimizing existing infrastructure to allow the existing treatment plant to treat an ADWF of 14.5 mgd and still meet the discharge requirements. A Phase I capacity of 14.5 mgd ADWF would allow the Dry Creek WWTP to meet demand through FY 2018-2019, under the most aggressive growth scenario, and through FY 2050, under the least aggressive scenario. In anticipation of regulatory requirements for nutrient removal and control of contaminants of emerging concern, Phase II improvements would convert the Dry Creek WWTP to a Membrane Bioreactor (MBR) facility. The City of Roseville selected an ADWF capacity of 18 mgd for Phase II, which allows for an approximately 25-year planning horizon under the most aggressive growth scenario (SPWA, 2009). Since the planned upgrades are based on future growth scenarios the exact timing of each phase has not yet been determined.

**TABLE 3.12-2**  
SUMMARY OF PLANNED UPGRADES TO THE DRY CREEK WWTP

Growth Scenario	ADWF (mgd)
Existing Treatment Capacity	11.5
Phase I Treatment Capacity	14.5
Phase II Treatment Capacity	18
Source: SPWA, 2009	

**SMD 2**

SMD 2 was formed by the Placer County Board of Supervisors in 1961 to provide maintenance and operation of the Granite Bay sewer system and treatment plant (now abandoned). At the time of its completion, all existing structures within the district and within established criteria were required to connect to the sewer, along with all new development. In the early 1980s, studies on the SMD 2 wastewater treatment plant concluded that in order to meet new discharge requirements the existing plant needed to be abandoned and wastewater conveyed to the Dry Creek WWTP. Since 1986, wastewater generated within SMD 2's approximately 7,727-acre service area has been conveyed to and treated at the Dry Creek WWTP. As shown in **Figure 3.12-1**, SMD 2 is within the current SPWA service area boundary. As of July 2008, SMD 2 consists of 118 miles of sewer collection pipe and 7,016 equivalent dwelling unit (EDU) Connections (Placer County, 2009).

**SMD 3**

SMD 3 provides sewer and wastewater treatment service to approximately 1,500 residents (615 EDU) in the Horseshoe Bar area of the County. Wastewater currently collected in the approximately 1,846-acre sewer service area is currently treated by the SMD 3 WWTP, which consists of a primary clarifier, trickling filter, secondary clarifier, chemical feed system, final clarifier, sand filtration system (tertiary treatment), chlorination, and de-chlorination. The WWTP is classified as a minor discharger, with a permitted treatment capacity of 0.30 million gallons per day (mgd) average dry-weather flow (ADWF). Treated effluent is discharged to Miner's Ravine, while biosolids are hauled to other facilities for treatment and are ultimately taken to the Western Regional Sanitary Landfill. The current flow rates at the SMD 3 WWTP are 0.11 mgd ADWF and 0.58 mgd peak wet weather flow (PWWF). Current flows are approximately a quarter of the anticipated ADWF resulting from build-out of the SMD 3 service area. While the average growth rate over the last 10 years was 20 new connections per year, the past six years have averaged just eight new connections per year. Expected future growth rates are far below the previous 10-year period.

On June 22, 2007, the CVRWQCB issued more stringent WDR for the SMD 3 WWTP (WDR Order R5-2007-0070). The existing WWTP was not designed to meet many of the treatment requirements listed in the orders. The NPDES permit includes final effluent limitations for disinfection by-products, aluminum, copper, and pesticides, and will be up for renewal on June 22, 2012.

## Solid Waste Disposal

### *Solid Waste Facilities*

The County contracts with Recology Auburn Placer (RAP) to provide garbage collection services to the western portion of the County, from the Roseville area to Colfax. RAP disposes collected solid waste at the Western Placer Waste Management Authority (WPWMA) Materials Recovery Facility (MRF) where recyclable materials are recovered from the garbage prior to disposal at the Western Regional Sanitary Landfill (WRSL; Placer County Facility Service Department, 2012). Both the MRF and WRSL are operated by WPWMA under a Joint Exercise of Powers Agreement between the County and the Cities of Roseville, Rocklin, and Lincoln.

The MRF is a permitted large-volume transfer/processing facility and composting facility. The MRF has an estimated processing capacity of 1,900 tons/day and a maximum permitted processing limit / throughput of 1,750 tons/day and accepts various types of waste including construction/demolition, green materials, mixed municipal, wood waste, and other hazardous wastes. During the 2011 calendar year, the average daily weekday tonnage received by the MRF was approximately 1,066 tons (Ulmer, 2012). The composting facility accepts green materials and has a permitted capacity of 75,000 cubic yards/ year and a maximum permitted throughput of 205 tons/day (California Department of Resources, Recycling, and Recovery [CalRecycle], 2012a).

The WRSL is a permitted solid waste landfill that has an permitted design capacity of 36,350,000 cubic yards and a maximum permitted design limit of 1,900 tons/day (CalRecycle, 2012b). As described above, biosolids from surrounding WWTPs are disposed of at the WRSL. Biosolids are not processed through the MRF, but disposed directly into the Class II portion of the WRSL and covered immediately (Ulmer, 2012). During the 2011 calendar year, the average daily weekday tonnage received by the WRSL, including biosolids, was approximately 753 tons. The WRSL has an estimated remaining capacity of approximately 26,278,330 cubic yards, which is approximately 72 percent of the total capacity (Ulmer, 2012). According to the Western Regional Sanitary Landfill's Solid Waste Facility Permit, the estimated closure date for this landfill is January 2042.

### *Local Diversion Rates*

As discussed below, California passed the Integrated Waste Management Act in 1989 to reduce the amount of solid waste disposed to landfills by 50 percent before the year 2000. In 2008, California passed the Solid Waste Per Capita Disposal Management Act which established a disposal-based indicator, the 50 percent per capita disposal target, to assist in determining a jurisdiction's compliance with the Integrated Waste Management Act. As shown in **Table 3.12-3**, all of the jurisdictions within Placer County achieved a lower disposal rate than their target rate (CalRecycle, 2012c). Because Placer County had a diversion rate of over 50 percent in 2006, it will only be reviewed for compliance every four years; the first four-year review will be completed in 2013 after receipt and review of 2011 annual reports (CalRecycle, 2012d).

TABLE 3.12-3

2009 PLACER COUNTY DIVERSION/DISPOSAL PROGRESS REPORT

Jurisdiction	Population Disposal (PPD) <sup>1</sup>	
	Target	Annual
Auburn	7.4	5.5
Colfax	8.4	5.9
Lincoln	7.9	3.2
Loomis	6.2	4.2
Rocklin	4.2	2.7
Roseville	8.9	4.6
Unincorporated County	6.3	3.8
Notes: 1 – Pounds of waste per person per day Source: CalRecycle, 2012c		

### 3.12.2 REGULATORY FRAMEWORK

#### National Pollutant Discharge Elimination System Permit

The National Pollutant Discharge Elimination System (NPDES) permit was established in the Federal CWA to regulate municipal and industrial discharges to surface waters of the United States. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. The CVRWQCB establishes the quality of the effluent that can be discharged to waterways within the Sacramento area through Waste Discharge Requirements (WDRs) that implement the NPDES permit. WDRs are updated at least every five years. A new permit must be issued in the event of a major change or expansion of the facility.

#### AB 939 – The Integrated Waste Management Act

The Integrated Waste Management Act, adopted in 1989, was adopted with the purpose of directing attention to the nation's increasing waste stream and decreasing landfill capacity, and to mandate a reduction of waste being disposed. For this purpose the act established waste diversion goals for cities and counties of 25 percent by 1995 and 50 percent by the year 2000. A disposal reporting system was established with California Integrated Waste Management Board (CIWMB) oversight, and jurisdictions were required to develop Source Reduction and Recycling Elements and Household and Hazardous Waste disposal programs.

#### SB 1016 – The Solid Waste Per Capita Disposal Measurement Act

The Solid Waste Per Capita Disposal Management Act, adopted in 2008, was adopted with the purpose of making the process of goal measurement as established by Assembly Bill (AB) 939 simpler, more timely, and more accurate. Senate Bill (SB) 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator--the per capita disposal rate--which uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The per capita disposal rate is used as one of several "factors" in determining a jurisdiction's compliance with AB

939. CalRecycle reviews the compliance of each jurisdiction based on their compliance as of 2006 (CalRecycle, 2012d).

### **AB 341 – Commercial Recycling**

AB 341 directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation was approved at the CalRecycle Monthly Public Meeting on January 17, 2012, and is currently pending Office of Administrative Law approval. The regulations require that on and after July 1, 2012, businesses, including public entities, that generate four cubic yards or more of commercial solid waste per week shall arrange for recycling services. The 50 percent disposal reduction mandate still stands for cities and counties under AB 939. CalRecycle will continue to evaluate program implementation as it has in the past through the Annual Report review process for entities subject to AB 939 (Cal Recycle, 2012e and 2012f).

### **Relevant Plans and Policies**

#### ***Placer County General Plan***

Applicable goals and policies within the Placer County General Plan applicable to wastewater conveyance and treatment facilities and solid waste disposal facilities are listed below (Placer County, 2008a).

#### **General Public Facilities and Services**

##### **Goals**

- 4.A To ensure the timely development of public facilities and the maintenance of specified service levels for these facilities.

##### **Policies**

- 4.A.2 The County shall ensure through the development review process that adequate public facilities and services are available to serve new development. The County shall not approve new development where existing facilities are inadequate unless the following conditions are met:
- a. The applicant can demonstrate that all necessary public facilities will be installed or adequately financed (through fees or other means); and
  - b. The facilities improvements are consistent with applicable facility plans approved by the County or with agency plans where the County is a participant.

#### **Sewage Collection, Treatment, and Disposal**

##### **Goals**

- 4.D To ensure adequate wastewater collection and treatment and the safe disposal of liquid and solid waste.

##### **Policies**

- 4.D.1 The County shall limit the expansion of urban communities to areas where community wastewater treatment systems can be provided.

### 3.0 Affected Environmental and Environmental Consequences

- 4.D.3 The County shall discourage extension of sewer service outside of city spheres of influence and community plan areas, except in limited circumstances to resolve a public health hazard resulting from existing development, or where there is substantial overriding public benefit.
- 4.D.4 The County shall promote efficient water use and reduced wastewater system demand by:
- a. Requiring water-conserving design and equipment in new construction;
  - b. Encouraging retrofitting with water-conserving devices; and
  - c. Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible.
- 4.D.6 The County shall promote functional consolidation of wastewater facilities.

#### **Landfills, Transfer Stations, and Solid Waste Recycling**

##### **Goal**

- 4.G To ensure the safe and efficient disposal or recycling of solid waste generated in Placer County.

##### **Policies**

- 4.G.2 The County shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes.

#### ***Horseshoe Bar/Penryn Community Plan***

Applicable goals and policies within the Horseshoe Bar/Penryn Community Plan (Placer County, 2005) regarding wastewater conveyance and treatment facilities are listed below. The Horseshoe Bar/Penryn Community Plan does not include goals and policies that are applicable to solid waste disposal facilities.

##### **Goals: Community Development Element – Public Facilities and Services**

- (1) Ensure that public services and facilities are available to serve the needs created by the present and future development which, occurs in the plan area (General Community Goal #18).
- (2) Maintain the most feasible and acceptable balance between adequate public services, costs of providing those services, and projected demand.
- (3) Avoid inappropriate growth-inducing impacts which can result from premature public service facility construction.
- (4) Make urban services available only to those - lands which, under the land use plan, will need them.
- (5) Ensure that the rate of development shall not exceed the capacity of the county, community, special districts (including school districts), and utility companies to provide all needed public services in a timely, orderly, and economically feasible manner.

#### **Policies**

- (1) Coordinate with City, County, special districts, public works, and land use planning staff regarding the timely provision of public facilities and services. Discourage over-development of facilities, services, and systems in advance of demand to ensure that no inequitable financial burden is imposed, and to prevent the commitment of land use through premature public facility construction.
- (2) Ensure that adequate services will be available for proposed development before granting approvals.
- (3) The County or other public entity should be responsible for operating sewer, water, and major drainage services, as opposed to a private landholder.

#### **Sewage Disposal**

##### **Policies**

- (1) Assure that sewage disposal facilities physically meet the demands of the developing community's density while also protecting the public health and water quality from adverse effects.
- (3) Strongly encourage the extension of public sewers via gravity or pressure sewer systems into areas where existing systems are known to be failing.
- (4) Appropriate mitigations shall be identified and implemented as part of project approvals wherever proposed sewage disposal system densities will likely affect the public health and/or groundwater/surface water quality.

#### ***Granite Bay Community Plan***

The Granite Bay Community Plan Update was adopted by the Placer County Board of Supervisors on February 28, 2012 (Placer County, 2012). This version as well as the currently adopted version of the Granite Bay Community Plan of 1989 (Placer County, 2005) has been reviewed for land use designations and applicable goals and policies relating to utilities and service systems; goals and policies regarding wastewater conveyance and treatment facilities are listed below. The Granite Bay Community Plan does not include goals and policies that are applicable to solid waste disposal facilities.

#### **Goal: Public/Quasi-Public Services – Public Sanitary Sewer**

1. Require sanitary sewer facilities, both collection and treatment, which are sufficient to serve the Plan area's proposed density of residential, commercial, and public/institutional uses in a way which protects the public and environment from adverse water quality or health impacts.

#### **Policies**

3. Require all public sanitary sewer facilities to be designed and build to the current standards of the agency providing service.

### 3.12.3 ENVIRONMENTAL CONSEQUENCES/ IMPACTS AND MITIGATION MEASURES/BMPs

#### Methodology

This section identifies any impacts to existing utilities and service systems that could occur from the implementation of the proposed project alternatives as determined in the Initial Study (**Appendix B**). Impacts to utilities and service systems were analyzed based on existing and future service capacities of the utilities and service systems and comparison of these factors to the thresholds of significance listed below. If adverse effects are likely to occur, mitigation measures/BMPs are included to increase the compatibility of the Proposed Project and to minimize effects. Because impacts associated with utilities are inherently cumulative in nature, both the direct and cumulative impacts of the proposed project alternatives are discussed under each identified issue area below.

#### Thresholds/Basis of Significance

Criteria for determining the significance of impacts to public utilities and service systems have been developed based on *Appendix G* of the CEQA Guidelines, SPWA's Regional Wastewater and Recycled Water Systems Evaluation Report Initial Study Checklist, and relevant agency thresholds. For the purposes of this EA/EIR, an impact to public services, utilities, and recreation facilities would be considered significant if the Proposed Project would:

- 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;
- Exceed existing permitted wastewater treatment and discharge requirements of the CVRWQCB or other applicable regulatory agency or exceeds the quantity of wastewater flow considered and documented in existing certified Environmental Impact Reports (EIRs);
- Result in a determination by the local wastewater collection system provider (e.g. City of Roseville, SPMUD, Placer County, or the regional wastewater conveyance, treatment, and disposal provider, SPWA) which serves or may serve the project that it does not have adequate capacity to serve the project's projected wastewater flow over and above meeting the provider's existing commitments;
- 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;
- Result in insufficient water supplies available to serve the project from existing entitlements and resources, requiring new or expanded entitlements;

### 3.0 Affected Environmental and Environmental Consequences

- Generate solid waste disposal needs beyond the permitted capacity of the landfill serving the project area requiring development of new solid waste facilities, the construction of which, could result in adverse environmental effects;
- Not comply with Federal, state, and local statutes and regulations related to solid waste; or
- Result in substantial adverse physical impacts associated with the provision of new or physically altered utility facilities, need for new or physically altered utility 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 public services:
  - Wastewater treatment,
  - Biosolids disposal/reuse,
  - Wastewater conveyance,
  - Recycled water storage, and/or
  - Recycled water distribution.

#### Effects Found Not to be Significant

The Initial Study (**Appendix C**) concluded that the Proposed Action would not require the construction or expansion of water supply facilities or stormwater drainage facilities. These effects are, therefore, not considered within this EA/EIR.

#### Project Specific and Cumulative Impacts

##### Impact

- 3.12-1 The project could potentially require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which, could cause significant environmental effects.**

##### ***No Project/No Action Alternative***

Under the No Action Alternative, the SMD 3 WWTP will not be decommissioned and wastewater generated within SMD 3 would not be conveyed to the SMD 2 collection system or the Dry Creek WWTP; therefore, no new or expanded facilities would be required. **No Impact.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Alternative A includes the conveyance of wastewater generated within the SMD 3 service area to the Dry Creek WWTP for treatment. The current flow rates at the SMD 3 WWTP are 0.11 mgd ADWF. Proposed facilities during the Phase I of the Proposed Project would have the capacity to convey up to 0.16 mgd ADWF of flows to the Dry Creek WWTP, which would accommodate potential growth within the next 10 years (2021) within SMD 3. Phase II of the Proposed Project would have the capacity to convey up to 0.25 mgd ADWF of flows to the Dry Creek WWTP, which would accommodate potential growth within the SMD 3 service area between 2021 and 2036. While the ultimate flows from build-out of the SMD 3 service area could be up to 0.41 mgd ADWF

### 3.0 Affected Environmental and Environmental Consequences

(see **Section 4.2**), the timing of build-out to maximum zoning densities is unknown and may never be achieved given the policies within the adopted Horseshoe Bar/Penryn and Granite Bay Community Plans intended to enhance the rural and natural qualities of the communities (refer to **Section 3.8**). Further, upgrades would be required to the SMD 2 collection system to accommodate flows from the SMD 3 service area that are above 0.25 mgd ADWF. These upgrades are not within the scope of the Proposed Project and would be subject to further environmental review pursuant to CEQA. As shown in **Table 3.12-1**, the SPWA Systems Evaluation Report assumed that the addition of SMD 3 to the SPWA service area boundaries would result in an ADWF of 0.29 mgd, which is 16 percent more than the capacity of proposed conveyance facilities proposed under Alternative A. Therefore, the additional flows under Alternative A were considered within the SPWA Systems Evaluation Report's recommendations for future upgrades to the Dry Creek WWTP. The precise timing of the future upgrades has not been determined as they would be triggered by the cumulative build out of the 2005 Regional Service Area and Urban Growth Areas. Once the future upgrades are determined to be necessary, the City of Roseville, in conjunction with SPMUD and Placer County, will approach the SPWA board to establish a project that will evaluate all intensification and rezoning areas identified in the Systems Evaluation Report for the purpose of CEQA compliance (City of Roseville, 2012). The City of Roseville has indicated in its scoping comments included in **Appendix A** that the Dry Creek WWTP presently has sufficient capacity available to allow for the current SMD 3 service area flow rates and that future flow from the SMD 3 service area is not expected to require future unplanned expansion of treatment facilities (City of Roseville, 2012). Given the minor increase in flows resulting from Alternative A (less than three percent of Dry Creek WWTP's current treatment capacity of 11.5 mgd ADWF, and approximately one percent of the total build-out treatment capacity of 18 mgd ADWF), the potential environmental effects resulting from Alternative A's contribution to future expansion of the Dry Creek WWTP are considered less than significant. **Less-Than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

The potential for Alternative B to require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which, could cause significant environmental effects, is identical to Alternative A. **Less-Than-Significant Impact**

#### ***Alternative C Hidden Valley Pipe Upsizing***

The potential for Alternative C to require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which, could cause significant environmental effects, is identical to Alternative A. **Less-Than-Significant Impact.**

#### Impact

**3.12-2 The project could result in a determination by the local wastewater collection system provider that it does not have adequate capacity to serve the project's projected wastewater flow over and above meeting the provider's existing commitments.**

#### ***No Project/ No Action Alternative***

Under the No Action Alternative, the SMD 3 WWTP will not be decommissioned and wastewater generated within SMD 3 would not be conveyed to the SMD 2 collection system; therefore, no new or expanded facilities would be required. **No Impact.**

#### ***Alternative A Hidden Valley Force Main Alignment***

##### Wastewater Collection

As a component of the Proposed Project, the wastewater collection and conveyance system within SMD 3 would be expanded. The impacts of this expansion are described in the issue area chapters of this EA/EIR. The potential for Alternative A to result in the expansion of SMD 2 wastewater collection facilities is discussed below.

As discussed in greater detail in **Section 4.2**, flows within the SMD 3 service area were projected based on parcel land use established in the general plan and were calibrated using flow monitoring data for the collection system. The future build-out scenario represents the point in the future at which each parcel in the SMD 3 Service Area is fully developed. As part of the design phase of the proposed project alternatives, extensive modeling was done to estimate the respective capacity needs for SMD 2 and 3, investigate opportunities for phasing construction, and estimate "trigger points" that alert when growth within the sewer sheds would require additional capacity to accommodate future growth (Brown and Caldwell, 2011).

Hydraulic modeling indicated that SMD 2 pipelines located between manholes (MH) I17-10 and G16-43, and MHF15-13 and F15-16 would require additional upsizing to convey current SMD 2 and SMD 3 PWWF if SMD 3 flows were conveyed through the SMD 2 sewer at MH I17-10. SMD 2 sewers downstream of MH F15-19 would have some additional capacity available to allow a phased construction approach. The future PWWF of 0.77 mgd was identified as the "trigger point" for when capacity of the existing SMD 2 sewer downstream of MH F15-19 would be reached and construction of the remaining force main to connect to MH E14-48 would be required (Brown and Caldwell, 2011).

To avoid upsizing pipe, reduce costs, and avoid extensive environmental effects, Alternative A would include constructing a force main from the SMD 3 WWTP to MH F15-19, along the existing SMD 2 force main through the Placer County easements that run through the open space lots of the Hidden Valley community from MH G16-43 to MH F15-19.

The phasing schedule of Alternative A was designed to take advantage of the available capacity within the SMD 2 system to maximize operational efficiency and avoid unnecessary capital expenditures for capacity that may never be used. The modeling analysis indicated that

### 3.0 Affected Environmental and Environmental Consequences

regardless of the connection point for the SMD 3 force main, there would be substantial upsizing required downstream of MH E14-48 to convey the combined build-out PWWF of SMD 2 and SMD 3. Additional modeling was performed to determine the “trigger point” when the first section of gravity sewer downstream of MH E14-48 requires upsizing. At a conservative growth rate of 20 new connections per year within SMD 2 and SMD 3 (see **Section 4.2**), the downstream sewer would not see PWWF capacity nor require upgrades until somewhere between 25 and 31 years (2036 to 2042).

The future expansion of the SMD 2 collection system downstream of MH E14-48 would be subject to additional environmental review pursuant to CEQA, as it is not part of the Proposed Project. Future upgrades to the SMD 2 sewer downstream of MH E14-48 would be constructed within previously disturbed areas within County roadways and utility easements where sensitive biological and cultural resources are unlikely to occur. Potential environmental effects would be short-term temporary effects associated with construction activities, similar to those described within this EA/EIR for the proposed force main alignments. These effects can be mitigated through the implementation of feasible mitigation as will be identified and required by the CEQA review process, including the avoidance of sensitive resources and implementation of best management practices during construction. Alternative A's direct and cumulative contribution to environmental effects resulting from the construction of new/expanded wastewater collection facilities is considered to be less than significant. **Less-Than-Significant Impact.**

#### Recycled Water Storage and Distribution

SMD 3 is not within the recycled water service area of the SPWA nor would Alternative A result in an increased demand in recycled water use; therefore, Alternative A will not have any effect on the Recycled Water Storage and Distribution System. **Less-than-Significant Impact.**

#### ***Alternative B Road Right-of-Way Alignment***

The hydraulic modeling described above resulted in a second alternative which would avoid upsizing pipe, reduce costs, and avoid extensive environmental effects. Alternative B would have a phasing schedule similar to Alternative A, and would include construction of a new force main from the SMD 3 WWTP to MH F15-19 entirely within the Auburn-Folsom Road ROW. Alternative B's direct and cumulative contribution to environmental effects resulting from the construction of new/expanded wastewater collection facilities is considered to be less than significant. **Less-Than-Significant Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

Alternative C would be similar to Alternatives A and B, with the construction of a new force main from the SMD 3 WWTP to G16-43. Phase I of Alternative C would require approximately 900 LF of upsizing from MH F15-13 to F 15-19. The potential for Alternative C to require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which, could cause significant environmental effects, is identical to Alternatives A and B. **Less-Than-Significant Impact.**

**Impact**

**3.12-3 The project could generate solid waste beyond the permitted design capacity of the landfill and solid waste collectors serving the project area requiring development of new solid waste management facilities, the construction of which, could result in adverse environmental effects.**

***No Project/No Action Alternative***

Under the No Action Alternative the SMD 3 WWTP will not be decommissioned and wastewater generated within SMD 3 would not be conveyed to SMD 2 or the Dry Creek WWTP; therefore, no new or expanded facilities would be required and no additional solid waste would be generated.

**No Impact.**

***Alternative A Hidden Valley Force Main Alignment***

Construction

As discussed above, the MRF has a permitted processing limit / throughput of 1,750 tons/day and currently disposes approximately 1,066 tons/weekday, resulting in a remaining capacity of approximately 684 tons of solid waste/weekday. Similarly, the WRSL has a permitted disposal limit of 1,900 tons/day and currently receives approximately 753 tons/weekday, resulting in a remaining capacity of approximately 1,147 tons/weekday. The construction of Alternative A would result in the generation of construction waste that would be disposed of at the MRF and WRSL. Since the construction waste would be generated and disposed of throughout the construction period discussed in **Section 2.4.3**, the project's daily contribution to the MRF and WRSL would be minimal and would not exceed the permitted daily capacities of either the MRF or WRSL. Since the MRF and WRSL provide sufficient capacity and meet all appropriate standards regarding solid waste, a less-than-significant effect would occur. **Less-Than-Significant Impact.**

Operation

Alternative A includes the conveyance of wastewater generated within SMD 3 to the Dry Creek WWTP for treatment. This would increase the amount of biosolids produced at the Dry Creek WWTP for disposal at the WRSL; however, this increase would be off-set by the elimination of biosolids produced at the SMD 3 WWTP and disposed of at the WRSL. Operation and maintenance of the project would not increase solid waste generation above existing levels at the SMD 3. **No Impact.**

***Alternative B Road Right-of-Way Alignment***

Construction

Similar to Alternative A, the construction of Alternative B would not result in an exceedance of permitted disposal capacities at either the MRF or WRSL; therefore, a less-than-significant effect would occur. **Less-Than-Significant Impact.**

### 3.0 Affected Environmental and Environmental Consequences

#### Operation

As with Alternative A, under Alternative B there would be no net increase of biosolids being disposed at the WRSL and the operation and maintenance of the project would not increase solid waste generation above existing levels at the SMD 3 WWTP. **No Impact.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

#### Construction

Similar to Alternative A, the construction of Alternative C would not result in an exceedance of permitted disposal capacities at either the MRF or WRSL; therefore, a less-than-significant effect would occur. **Less-Than-Significant Impact.**

#### Operation

As with Alternative A, under Alternative C there would be no net increase of biosolids being disposed at the WRSL and the operation and maintenance of the project would not increase solid waste generation above existing levels at the SMD 3. **No Impact.**

### 3.13 SOCIOECONOMIC CONDITIONS/ ENVIRONMENTAL JUSTICE

This section addresses the potential for effects associated with socioeconomic conditions and environmental justice. Following an overview of the existing setting in **Subsection 3.13.1** and the relevant regulatory setting in **Subsection 3.13.2**, project-related effects and recommended mitigation measures/BMPs are presented in **Subsection 3.13.3**.

#### 3.13.1 AFFECTED ENVIRONMENT

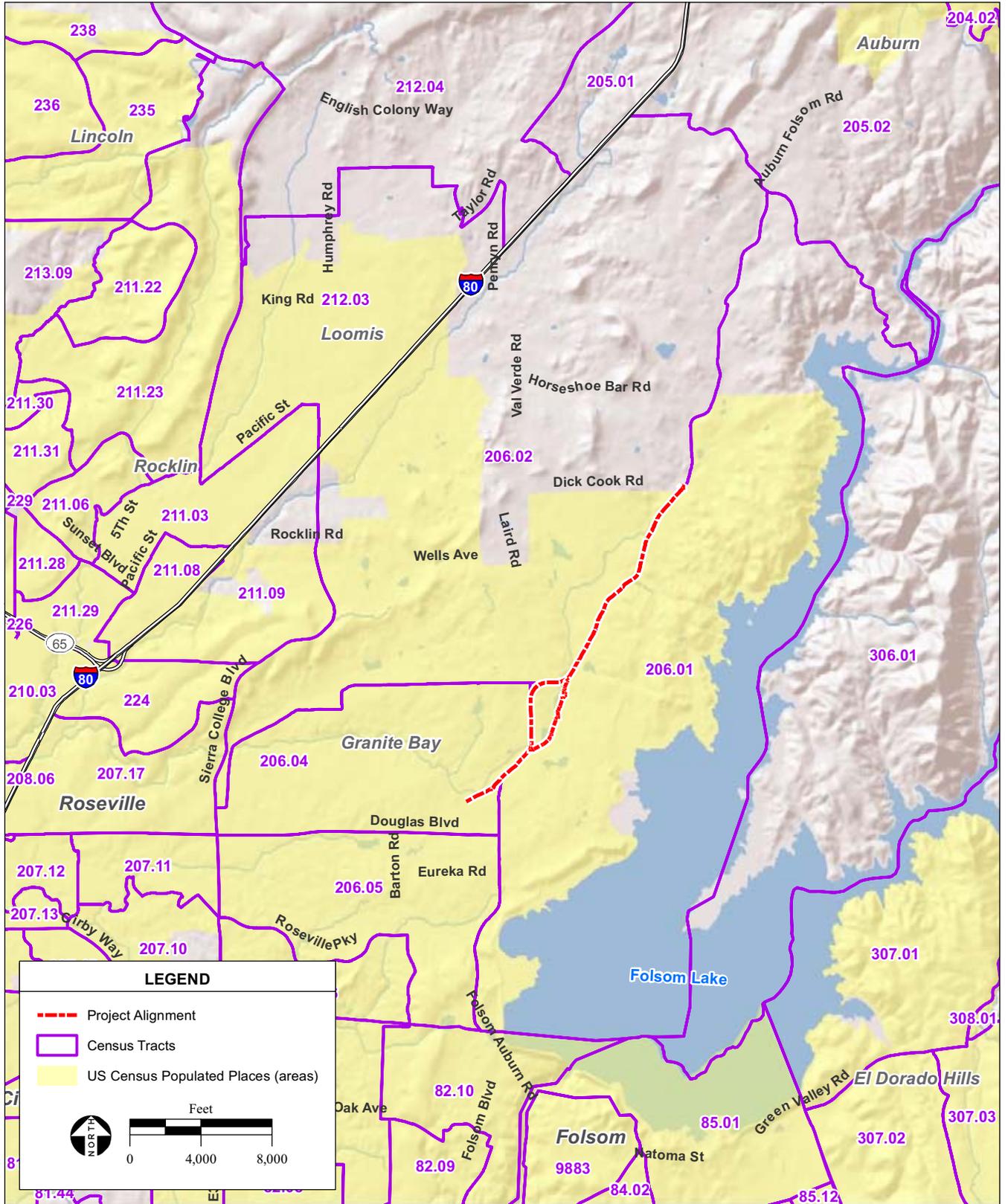
To determine whether a proposed action is likely to have disproportionately high and adverse effects on a population, agencies must identify a geographic scale for which they will obtain demographic information. Census tracts are a small, relatively permanent statistical subdivision of a county delineated by a local committee of Census data users for the purpose of presenting data. Census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Therefore, statistics of Census tracts provide a more accurate representation of a community's racial and economic composition. **Figure 3.13-1** depicts the Census tracts in the vicinity of the project area. The Census tracts that were considered in this analysis were those that contained the project area: Census Tracts 206.01, 206.02, and 206.04.

#### Race

As discussed in greater detail in **Section 3.13.2**, communities may be considered "minority" if the cumulative percentage of minorities within a defined geographic area is greater than fifty percent (primary method of analysis) or the cumulative percentage of minorities within the defined geographic area is less than fifty percent, but the percentage of minorities is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (secondary method of analysis). **Table 3.13-1** displays the population of each minority race by Census tract in the vicinity of the project area. As shown therein, none of the identified Census tracts have a minority population over 50 percent and none have a total minority population that is meaningfully greater than the minority population percentage in the general population (Placer County); therefore, the community encompassing the project area is not considered a "minority".

#### Income

As discussed in greater detail in **Section 3.13.2**, communities may be considered "low-income" under the executive order if the median household income for the defined geographic area is below the poverty line (primary method of analysis), or if other indications are present that indicate a low-income community is present within the census tract (secondary method of analysis). **Table 3.13-2** displays the median household income and poverty income limit for each identified Census tract. As shown therein, none of the Census tracts have a median house hold income below the poverty threshold nor are any other indications of a low-income community present; therefore, the community encompassing the project area is not considered "low-income."



SOURCE: US Census, 2000; AES, 2012

Placer County SMD 3 Regional Sewer Project EA/EIR / 210513 ■

**Figure 3.13-1**  
Census Tracts

### 3.0 Affected Environmental and Environmental Consequences

**TABLE 3.13-1**  
MINORITY POPULATIONS WITHIN PROJECT AREA

Census Tract	Total 2010 Population	Total Population: Hispanic or Latino	Total population: not Hispanic or Latino; population of one race; Black or African American alone	Total population: not Hispanic or Latino; population of one race; American Indian and Alaska Native alone	Total population: not Hispanic or Latino; population of one race; Asian alone	Total population: not Hispanic or Latino; population of one race; Native Hawaiian and Other Pacific Islander alone	Total population : not Hispanic or Latino; population of one race; some other race alone, other than white	Total population: not Hispanic or Latino; population of two or more races	Total population: minority	Percent minority
Placer County	348,432	44,710	4,427	2,080	19,963	697	603	10,658	83,138	24%
206.01	6,911	406	48	37	219	5	8	180	903	13%
206.02	6,907	512	43	52	216	9	8	177	1,017	15%
206.04	5,589	411	38	24	258	4	15	185	935	17%

Source: U.S. Census Bureau, 2010a.

**TABLE 3.13-2**  
HOUSEHOLD INCOME WITHIN PROJECT AREA

Census Tract	Median Household Income	Average Household Size <sup>3</sup>	Poverty Threshold <sup>a, 4</sup>
Placer County	\$67,884 <sup>1</sup>	2.6	\$14,218
206.01	\$122,007 <sup>2</sup>	2.7	\$14,218
206.02	\$87,386 <sup>2</sup>	2.7	\$14,218
206.04	\$117,522 <sup>2</sup>	2.8	\$14,218

Notes: a: The poverty threshold is the weighted average threshold for two people.  
 Source: 1: U.S. Census Bureau, 2010c.  
 2: U.S. Census Bureau, 2010b.  
 3: U.S. Census Bureau, 2010a.  
 4: U.S. Census Bureau, 2010d.

### 3.13.2 REGULATORY FRAMEWORK

#### Executive Order 12898

*Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, as amended, directs Federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The Council on Environmental Quality (CEQ) has oversight responsibility of the Federal government's compliance with Executive Order 12898 and the National Environmental Policy Act (NEPA). The CEQ, in consultation with the U.S. Environmental Protection Agency (EPA) and other agencies, has developed guidance to assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.

### 3.0 Affected Environmental and Environmental Consequences

According to guidance from the CEQ (1997b) and EPA (1998), agencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by a proposed action and, if so, whether there may be disproportionately high and adverse environmental effects to those populations. Communities may be considered “minority” under the executive order if one of the following characteristics apply:

- The cumulative percentage of minorities within a Census tract is greater than 50 percent (primary method of analysis).
- The cumulative percentage of minorities within a Census tract is less than 50 percent, but the percentage of minorities is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (secondary method of analysis).

According to EPA, either the county or the state can be used when considering the scope of the “general population.” A definition of “meaningfully greater” is not given by the CEQ or EPA, although the latter has noted that any affected area that has a percentage of minorities that is above the state’s percentage is a potential minority community and any affected area with a minority percentage double that of the state’s is a definite minority community under Executive Order (EO) 12898.

Communities may be considered “low-income” under the executive order if one of the following characteristics applies:

- The median household income for a Census tract is below the poverty line (primary method of analysis).
- Other indications are present that indicate a low-income community is present within the Census tract (secondary method of analysis).

In most cases, the primary method of analysis will suffice to determine whether a low-income community exists in the affected environment. However, when a Census tract income may be just over the poverty line or where a low-income pocket within the tract appears likely, the secondary method of analysis may be warranted. Other indications of a low-income community under the secondary method of analysis include limited access to health care, overburdened or aged infrastructure, and dependence on subsistence living.

#### 3.13.3 ENVIRONMENTAL CONSEQUENCES

##### Methodology

To determine the effects of the alternatives associated with socioeconomics and environmental justice, the location and status of minority and low-income communities of concern, as identified in **Section 3.13.2**, are compared to the effect and nature of an alternative’s effects.

An adverse environmental justice effect would result if any effect within the scope of this document disproportionately affected an identified minority or low-income community or Native American tribe. *Final*

*Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* provides the following direction on how to analyze the effects of actions on low-income and minority populations:

Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population (EPA, 1998).

## Project Specific Effects

### Impact

#### 3.13-1 Construction and operation of the project and recommended mitigation could disproportionately affect an identified minority or low-income community or Native American tribe.

##### ***No Project/No Action Alternative***

Under the No Action Alternative, the SMD 3 WWTP would not be decommissioned and the new pump station and wastewater conveyance facilities would not be constructed. Wastewater from the SMD 3 service area would continue to be treated at the SMD 3 WWTP and discharged into Miners Ravine. Failure to meet the new waste discharge requirements issued by the Central Valley Regional Water Quality Control Board (CVRWQCB) on June 22, 2007 (see **Section 1.3.1**) would result in fiscal penalties.

However; the No Action Alternative would not have a disproportionately high and adverse human health or environmental effect on low-income or minority populations because no low-income or minority populations are present adjacent to or near the project area. **No Effect.**

##### ***Alternative A Hidden Valley Force Main Alignment***

Construction and operation of the Proposed Project and implementation of recommended mitigation would not have a disproportionately high and adverse human health or environmental effect on low-income or minority populations because no low-income or minority populations are present adjacent to or near the project area. **No Effect.**

##### ***Alternative B Road Right-of-Way Alignment***

As with Alternative A, construction and operation of Alternative B would not have a disproportionately high and adverse human health or environmental effect on low-income or

### 3.0 Affected Environmental and Environmental Consequences

minority populations because no low-income or minority populations are present adjacent to or near the project area. **No Effect.**

#### ***Alternative C Hidden Valley Pipe Upsizing***

As with Alternative A, construction and operation of Alternative C would not have a disproportionately high and adverse human health or environmental effect on low-income or minority populations because no low-income or minority populations are present adjacent to or near the project area. **No Effect.**

## **Cumulative Effects**

### **Impact**

**3.13-2 Construction and operation of the project could have a cumulatively considerable affect on an identified minority or low income community or Native American tribe.**

#### ***Alternative A Proposed Project, Alternative B, and Alternative C***

As discussed above, the proposed project alternatives would have no effect on low-income or minority populations and, therefore, no cumulative effect would occur. **No Effect.**