



# PLACER COUNTY SMD 3 REGIONAL SEWER PROJECT

## VELB EFFECTS ANALYSIS

**MAY 2012**

PREPARED FOR:

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## INTRODUCTION

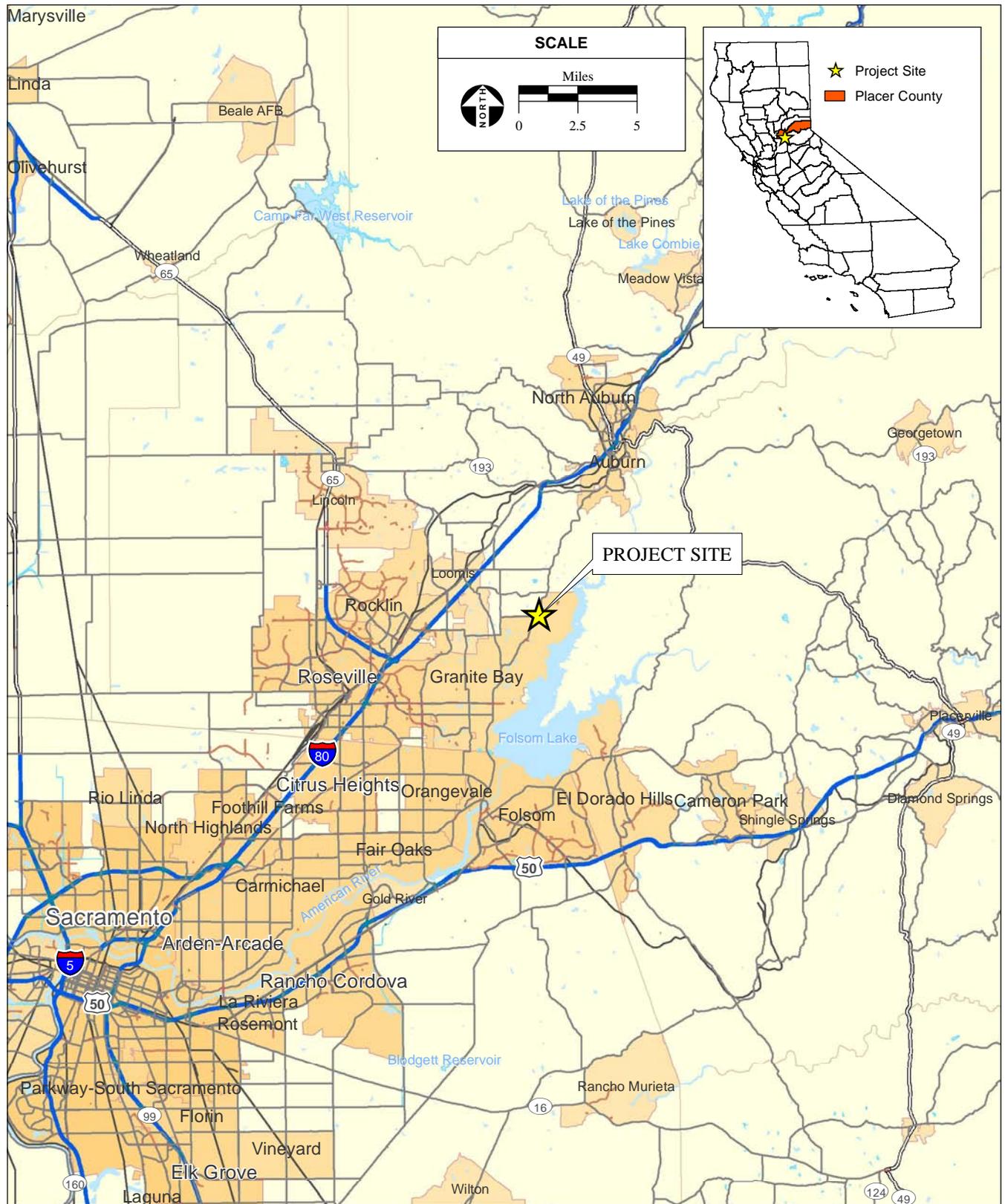
Analytical Environmental Services (AES) prepared this Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*; VELB) Analysis Report (report) for the Placer County Sewer Maintenance District (SMD) 3 Regional Sewer Project (Proposed Project), located within Placer County, California (**Figure 1**). The Proposed Project includes decommissioning the SMD 3 wastewater treatment plant (WWTP), and constructing a pump station and force main to convey wastewater flows to the SMD 2 collection system for connection to the South Placer Wastewater Authority (SPWA) interceptor and regional treatment facilities. This report has been prepared to identify appropriate avoidance and minimization measures for the installation of the proposed force main and the decommissioning of the WWTP to avoid incidental take of the federally threatened VELB pursuant to Section 7 of the federal Endangered Species Act (FESA) (16 U.S.C. 1536 (c)), in accordance with the USFWS *Conservation Guidelines for Valley Elderberry Longhorn Beetle* (USFWS Conservation Guidelines; 1999). The USFWS Conservation Guidelines recommend that data be collected for all elderberry (*Sambucus mexicana*) shrubs, host plants for the VELB, located within 100 feet of projects. The survey area includes the WWTP site, proposed force main alternative alignments, staging areas and a minimum 30-foot buffer around the project footprint. The minimum survey area was reduced to a 30-foot buffer because the majority of the project footprint is surrounded by private, residential land. A wider survey area was conducted where feasible.

## PROJECT LOCATION

The SMD 3 WWTP is located on County owned property at 4928 Auburn-Folsom Road (APN: 036-110-011-000) southeast of the unincorporated town of Loomis in Placer County, California. The 8.2-acre WWTP property is bordered by Auburn-Folsom Road and rural residential development along the eastern border, undeveloped open space to the south/southwest, and a mobile home park to the north/northwest. Miners Ravine traverses the property, entering at the northeast corner, heading west along the western boundary of the WWTP, creating a buffer between the site and the mobile home park. Alternative force main alignments to connect to the SMD 2 collection system extend south along Auburn Folsom Road and Joe Rodger's Road, as well as through County easements located within private property (some of which is designated as "open space"). The survey area is situated on Township 10 North, Range 7 East, Section 1 of the Folsom, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad) and Townships 10 and 11 North, Ranges 7 and 8 East, Sections 1, 18, 19, 24, 25, 26, and 35 of the USGS Rocklin, California quad. The centroid of the survey area is 38° 47' 02" North, 121° 08' 33" West. A topographic map and aerial photographs of the survey area are in provided as **Figures 2, 3a, and 3b**, respectively.

## PROJECT DESCRIPTION

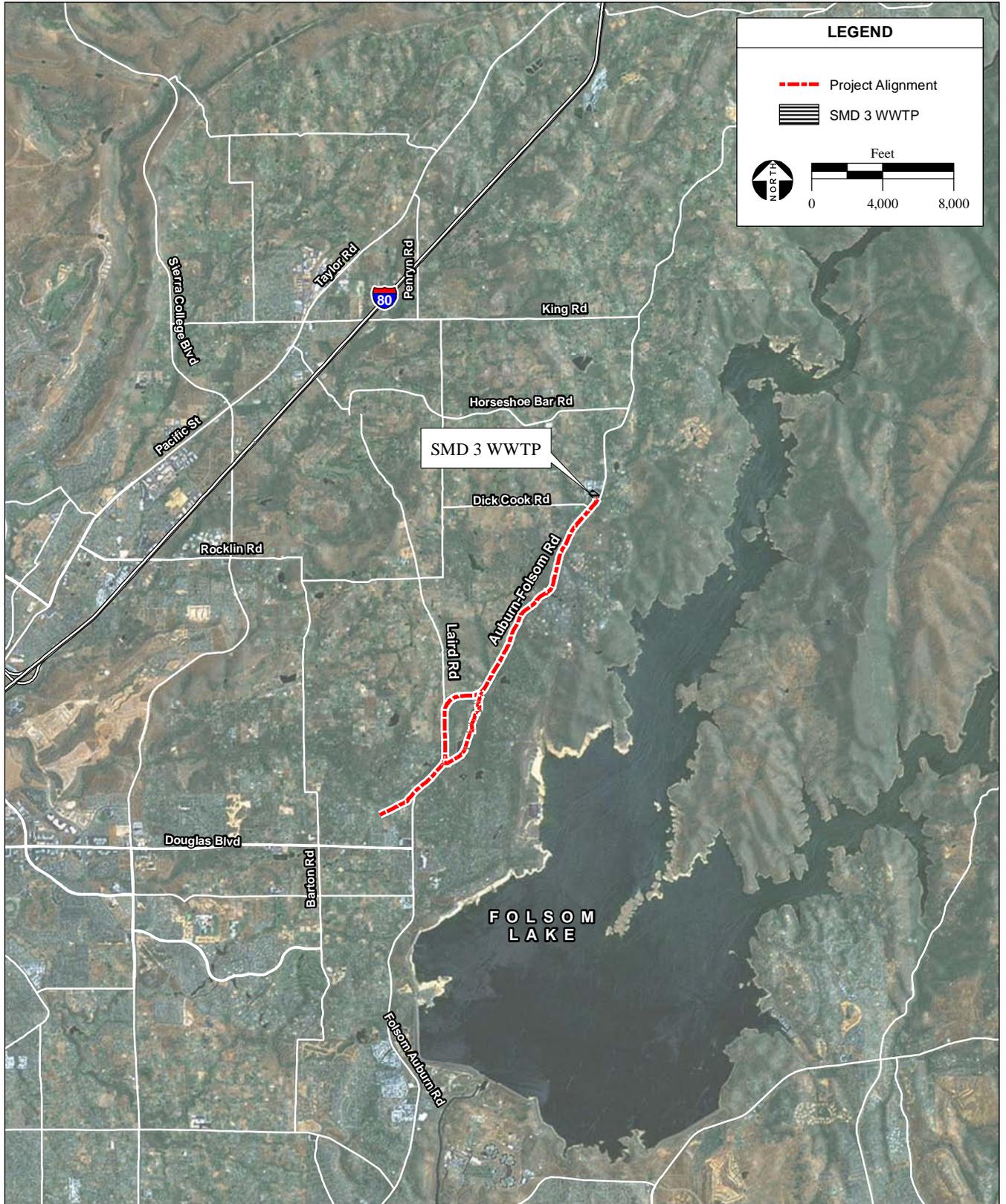
The proposed project includes decommissioning the SMD 3 WWTP and constructing a pump station and force main to convey wastewater flows to the SMD 2 sewer system to connect to the South Placer Wastewater Authority (SPWA) interceptor and regional treatment facilities. The purpose of the proposed project is to comply with the June 2007 Waste Discharge Requirements adopted by the Central Valley Regional Water Quality Control Board (CVRWQCB) for the SMD 3 system and to avoid the significant fiscal impact of fines if the improvements are not completed within the time limits specified by the



SOURCE: StreetMap North America, 2009; AES, 2011

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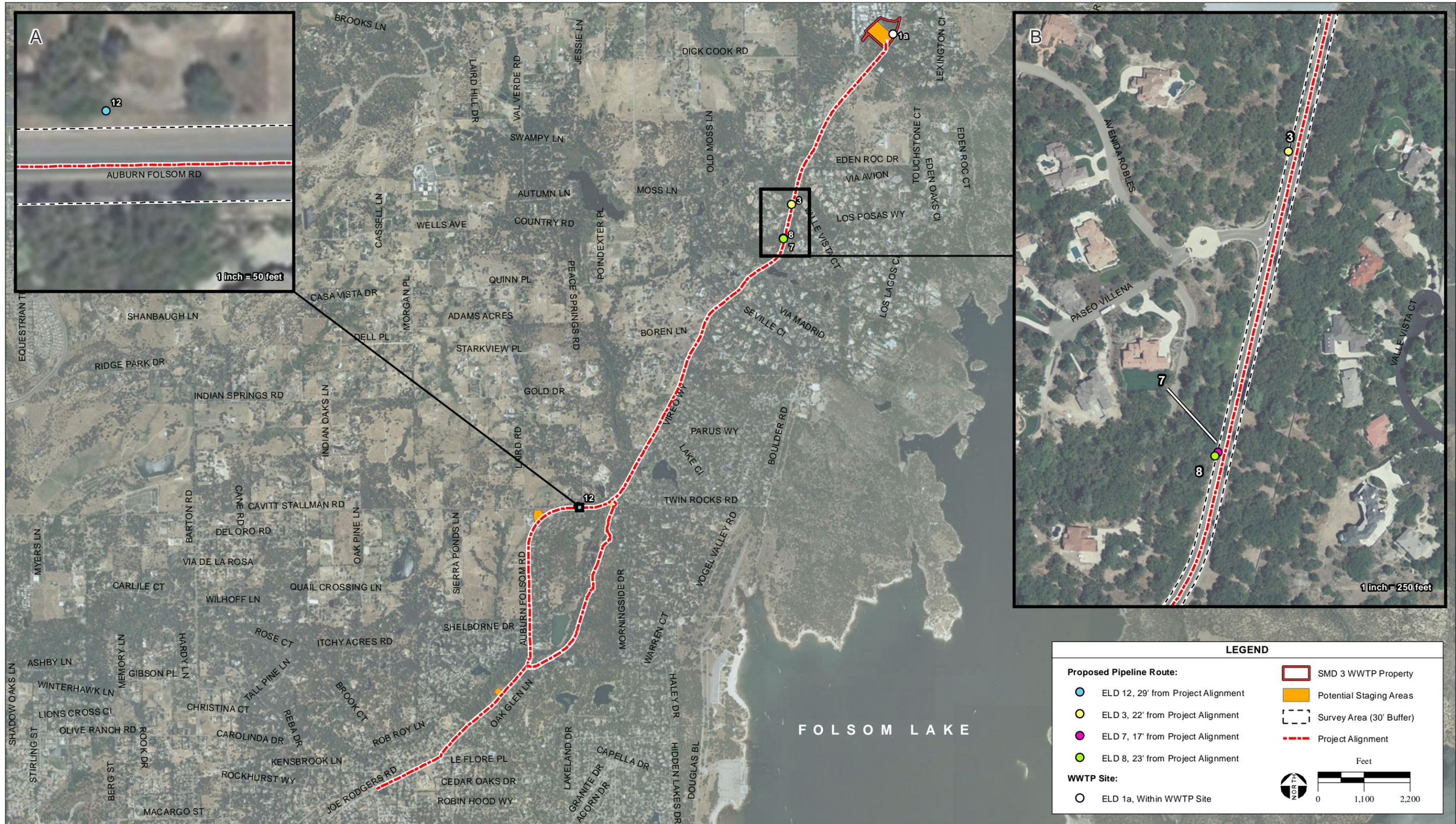
**Figure 1**  
Regional Location



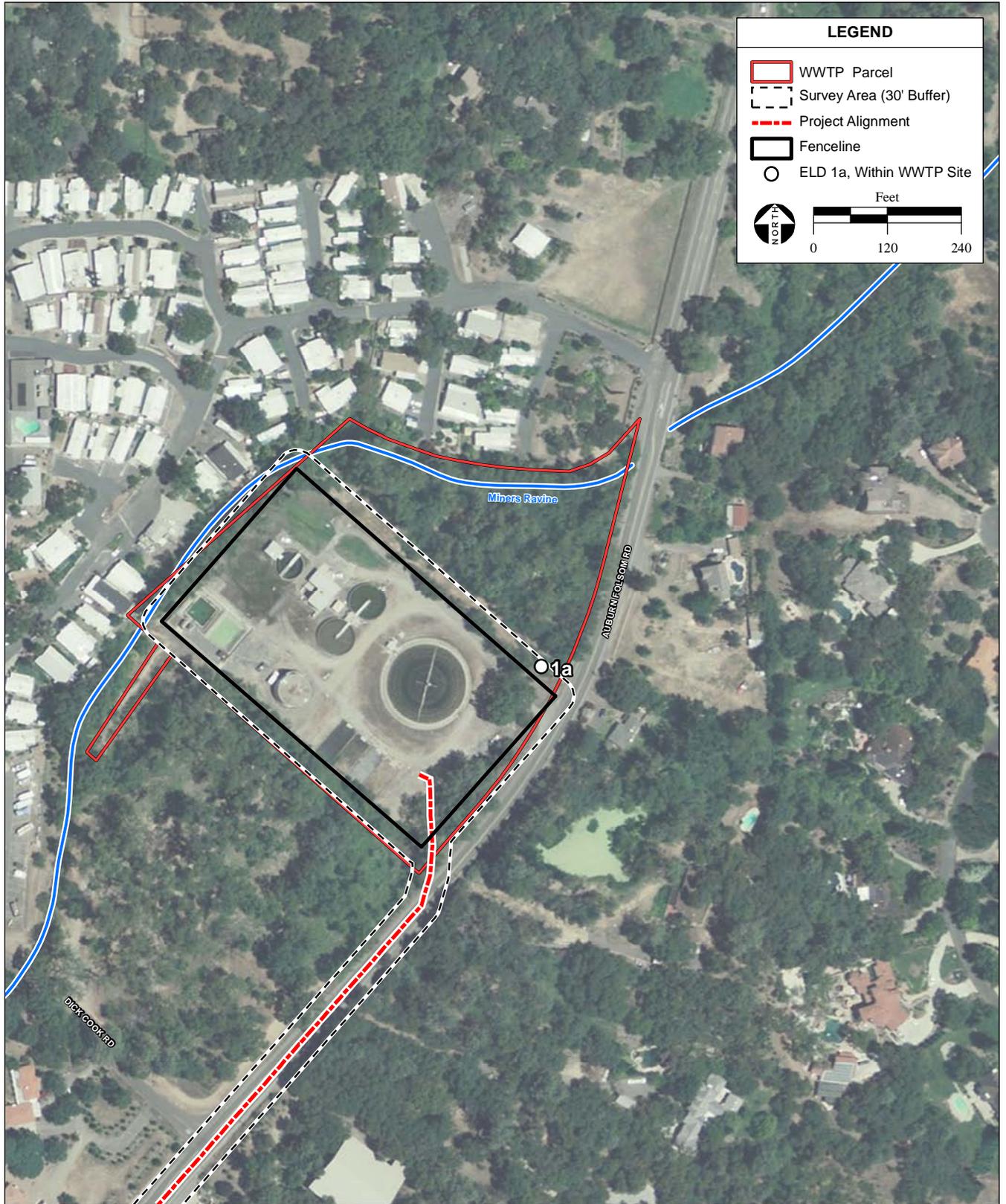
SOURCE: NAIP Aerial Photograph, 7/2009; AES, 2011

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**Figure 2**  
Site and Vicinity



**Figure 3a**  
Aerial Photograph of SMD 3 WWTP



SOURCE: Placer County Aerial Photograph, 6/2011; Brown & Caldwell, 2011; AES, 2012

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**Figure 3b**

FIG 3b Aerial Photograph of SMD 3 WWTP

CVRWQCB. The project footprint is shown on **Figures 3a** and **3b**. Three alternative force main alignments to connect with the SMD 2 collection system are proposed, and are shown in **Figures 2, 3a,** and **3b**. A brief description of each alternative alignment is below:

- Alternative A: Under Alternative A, a 10-inch diameter force main will be installed along an alignment within the Auburn Folsom Road and Joe Rodger’s Road ROW, as well as through land designated as open space. The total force main construction would be approximately 23,050 LF in length. The proposed pipeline would be installed underground, within existing County right-of-ways or utility easements.
- Alternative B: Under Alternative B, the 10-inch diameter force main would be installed entirely within the Auburn Folsom Road and Joe Rodger’s Road right-of-way (ROW). This alternative requires two pipeline crossings of Miners Ravine. The total force main construction would be approximately 23,250 LF in length (approximately 200 feet longer than Alternative A). The proposed pipeline would be installed underground, beneath existing roadways and road shoulders within County easements.
- Alternative C: The proposed force main alignment under Alternative C would be identical to Alternative B, except the extension of a segment of the force main would be delayed until a later phase through upgrades to a 900 foot long segment of the existing SMD 2 sewer that would provide sufficient capacity to accommodate projected flows through 2021. The upgrades to the SMD 2 sewer would occur within an area designated as open space.

Staging areas would be utilized in areas near construction sites to store pipe and other materials, construction equipment, and other necessary items. Short-term temporary easements for staging areas would be negotiated by contractors prior to construction. These areas will be located in previously disturbed areas. Several County-owned properties along the alignment could be used as contractor staging areas without the need to obtain an easement. These areas are shown in **Figure 2-3** and include:

- SMD 3 WWTP site
- Parcel at the intersection of Twin Rocks Road and Auburn Folsom Road
- Parcel at the intersection of Cavitt Stallman Road and Auburn Folsom Road
- Parking lot of the Miners Ravine Nature Reserve

## **METHODOLOGY**

AES biologists Kelly Bayne, M.S. and Laura Burris conducted VELB protocol-level surveys within the survey area on May 17 and 18, 2011. General biological surveys were conducted along Willow Lane on July 20, 2011 and February 8, 2012. As previously stated, although the USFWS Conservation Guidelines recommend that data be collected for all elderberry shrubs located within 100 feet of projects, the minimum survey area was reduced to a 30-foot buffer because the majority of the project site is surrounded by private, residential land. A wider survey area was conducted where feasible. AES biologists walked along the proposed pipeline route and within the WWTP site and potential staging areas to locate elderberry shrubs that occur in the vicinity of the survey area. AES biologists estimated height

and dripline, measured the diameter at ground level (dgl) of all stems of each elderberry shrub using calipers, and documented whether the elderberry shrub occurs within the riparian corridor and whether exit holes were present on any of the stems. 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 survey area were removed from the aerial photographs and excluded from this report.

## ENVIRONMENTAL SETTING

The following terrestrial habitats were identified within the survey area: annual grassland, riparian corridor, oak woodland, and ruderal/developed. The following aquatic habitats were identified within the survey area: perennial creek, seasonal wetland, and drainage ditch.

## RESULTS

**Table 1** summarizes the elderberry shrub data obtained during the biological surveys. One elderberry shrub comprised of stems measuring one-inch dgl occurs within the survey area associated with the WWTP site (ELD 1a). 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, but occurs within riparian habitat.

Four elderberry shrubs comprised of stems measuring one-inch dgl occur within the survey area associated with the proposed force main alignments (ELDs 3, 7, 8, and 12). Only one elderberry shrub (ELD 7) occurs within twenty feet of the proposed force main footprint. None of the 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 survey area and their proximity to the proposed project footprint are identified on **Figures 3a** and **3b**. Representative photographs of elderberry shrubs occurring within the survey area are shown in **Figure 4**. A California Natural Diversity Data Base map (CDFG, 2003) of VELB and other special status species occurrences documented within a five-mile radius of the WWTP site and the proposed force main alignments is provided in **Figure 5**.

**TABLE 1**

NUMBER OF STEMS BY DIAMETER CLASS, PRESENCE OF EXIT HOLES, AND PRESENCE OF RIPARIAN HABITAT OF ELDERBERRY SHRUBS MAPPED WITHIN THE SURVEY AREA

Shrub Number	Number of Stems by Diameter Class				Exit Holes?	Riparian Habitat?	Height	Dripline
	< 1"*	> 1" - < 3"	> 3" - < 5"	> 5"				
1a	--	1	3	1	N	Y	30	5
3	--	--	2	--	N	N	10	10
7	--	1	2	1	N	N	10	5
8	--	2	--	--	N	N	5	5
12	4	4	--	--	N	N	8	5

\*The USFWS does not consider elderberry shrubs comprised of stems less than one inch dgl potential habitat for VELB.



**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 west of elderberry shrub within the north-eastern portion of the WWTP site.



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



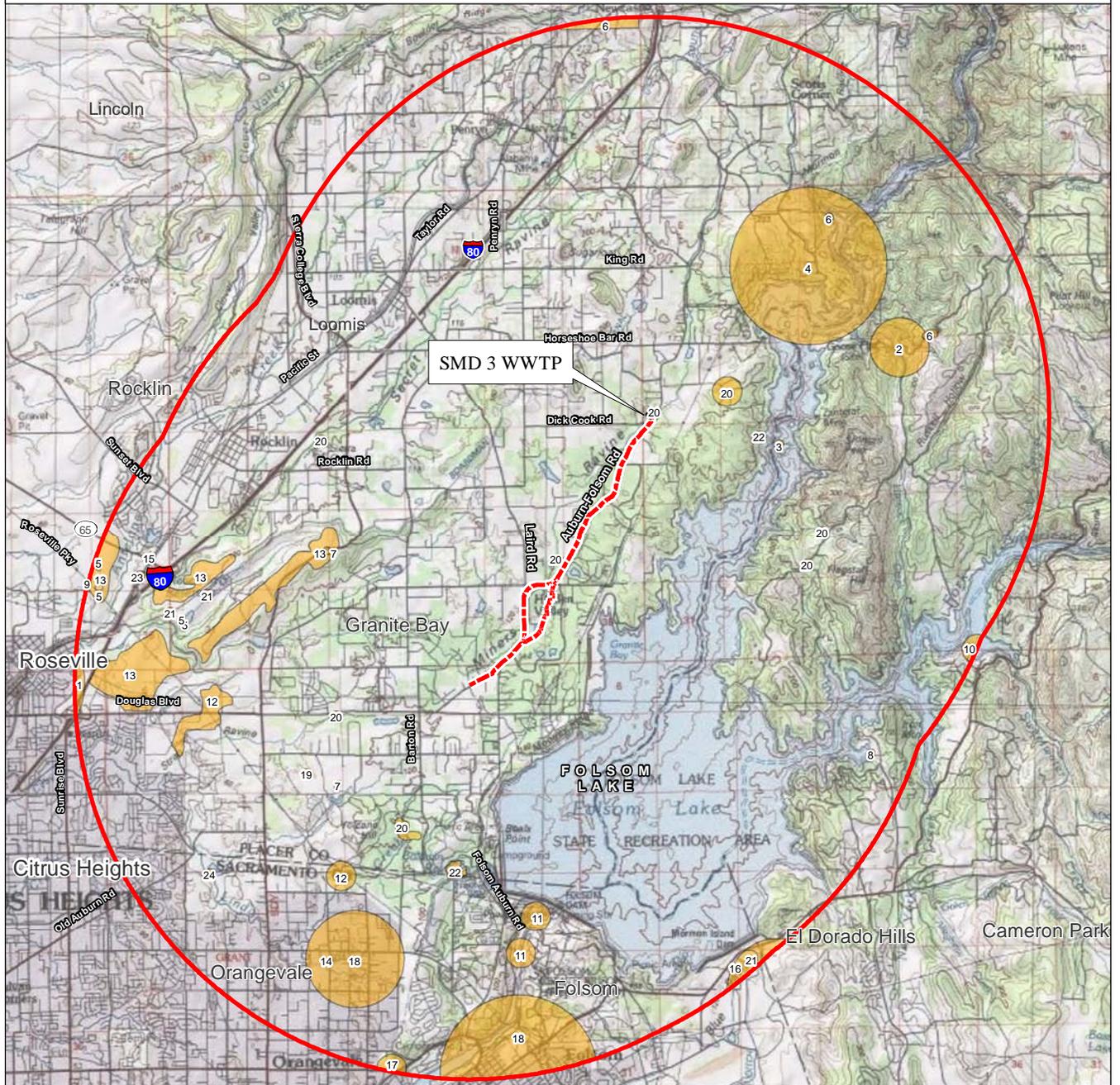
**PHOTO 5:** View southwest of elderberry shrub.



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

**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, 2011

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

## **PROJECT EFFECTS ON VELB**

The USFWS 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. The USFWS 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.

The proposed project would not result in the removal of any of the five elderberry shrubs mapped within the survey area. ELD 1a occurs approximately 30 feet to the north of the northeastern fence boundary surrounding the WWTP site. The elderberry shrub identified near the WWTP (ELD 1a) occurs approximately 30 feet to the north of the northeastern fence 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 pipeline 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. 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).

## **PROPOSED PROTECTIVE AND MINIMIZATION MEASURES**

The following protective measures will be implemented prior to commencement of construction activities to avoid adverse effects to VELB habitat within the survey area:

- High visibility construction fencing will 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 the four elderberry shrubs. The construction fencing will not be removed until construction activities in the vicinity of the avoidance areas have been completed.
- Two signs will be erected approximately 20 feet apart along the high visibility construction fencing within each of the four 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.

- A biologist 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 survey 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.
- 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 approved construction staging areas. Excess excavated soil will be used onsite or disposed of at a regional landfill or other appropriate facility.
- Standard precautions will be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials.
- 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.
- Roadways and areas disturbed by project activities within the 60-foot buffer to the north and south of the five elderberry shrubs within the survey area will be watered at least twice a day to minimize dust emissions.

The following mitigation measures will be implemented to minimize adverse effects to VELB habitat within 20 feet of the proposed pipeline route:

- A biologist will monitor all construction activities occurring within 20 feet of ELD 7 to ensure that it is not harmed.
- 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.
- No insecticides, herbicides, fertilizers, or other chemicals that might harm VELB or the elderberry shrub will be used within the survey area.

- The County will provide a written description of how the construction areas are to be restored, protected, and maintained after construction is completed.
- Equipment operators will refrain from working within the dripline of ELD 7 to the maximum extent practicable.
- Any disturbed areas will be revegetated and restored to pre-project conditions immediately. The installation of the proposed pipeline route will not result in damage to ELD 7.

## **CONCLUSION**

The proposed pipeline would be installed within existing roadways and road shoulders within existing right of ways. Construction would not result in the removal or pruning of any elderberry shrubs. One elderberry shrub occurs within the survey area associated with the WWTP site (ELD 1a). Four elderberry shrubs measuring at least one inch dgl occur within 30 feet of the proposed pipeline route (ELDs 3, 7, 8, and 12). The dripline of one of these shrubs (ELD 7) occur within 20 feet of the proposed pipeline footprint. None of the elderberry shrubs comprised of stems measuring one-inch dgl contained exit holes nor. Only one elderberry shrub occurs within riparian habitat (ELD 1a). Implementation of the required protective, restoration, and maintenance measures identified above would avoid and/or reduce potential adverse affects to VELB to less than significant levels. The Placer County SMD 3 Regional Sewer project may effect, but is not likely to adversely affect VELB with the implementation of the proposed protective, restoration, and maintenance measures identified above.

## **REFERENCES**

U.S. Fish and Wildlife Service (USFWS), 1999. Conservation Guidelines for Valley Elderberry Longhorn Beetle. U.S. Department of the Interior. Fish and Wildlife Service. Sacramento Fish and Wildlife Office. Sacramento, California. 9 July 1999.