3.4 Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
4.	**BIOLOGICAL RESOURCES— Would the Project:**				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	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 California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Environmental Setting

The Project study area includes the existing 12.5-mile Missouri Flat-Gold Hill power line and the existing 7-mile Gold Hill No. 1 power line, which runs alongside the Missouri Flat-Gold Hill power line for half of its distance. The study area encompasses an area approximately 12.5 miles (20 kilometers [km]) long and 300 feet (91 meters [m]) wide, and totals approximately 634 acres (198 hectare [ha]). The term "Project area" is used interchangeably with Project study area in this section to describe areas within the footprint of Project activities (see Figures 2-2 through 2-8: Proposed Project: Detailed Alignment in *Chapter 2, Project Description*). Existing conditions for biological resources in the study area were assessed by conducting database queries, literature review, aerial map review, and by conducting various biological studies, including vegetation mapping, rare plant surveys, elderberry shrub survey, wildlife survey, and a formal wetland delineation. Methodologies for determining existing conditions for biological resources in the study area are described under each resources heading (e.g., Vegetation Communities, Special-Status Species, and Jurisdictional Wetlands and Waters).

Regional Setting

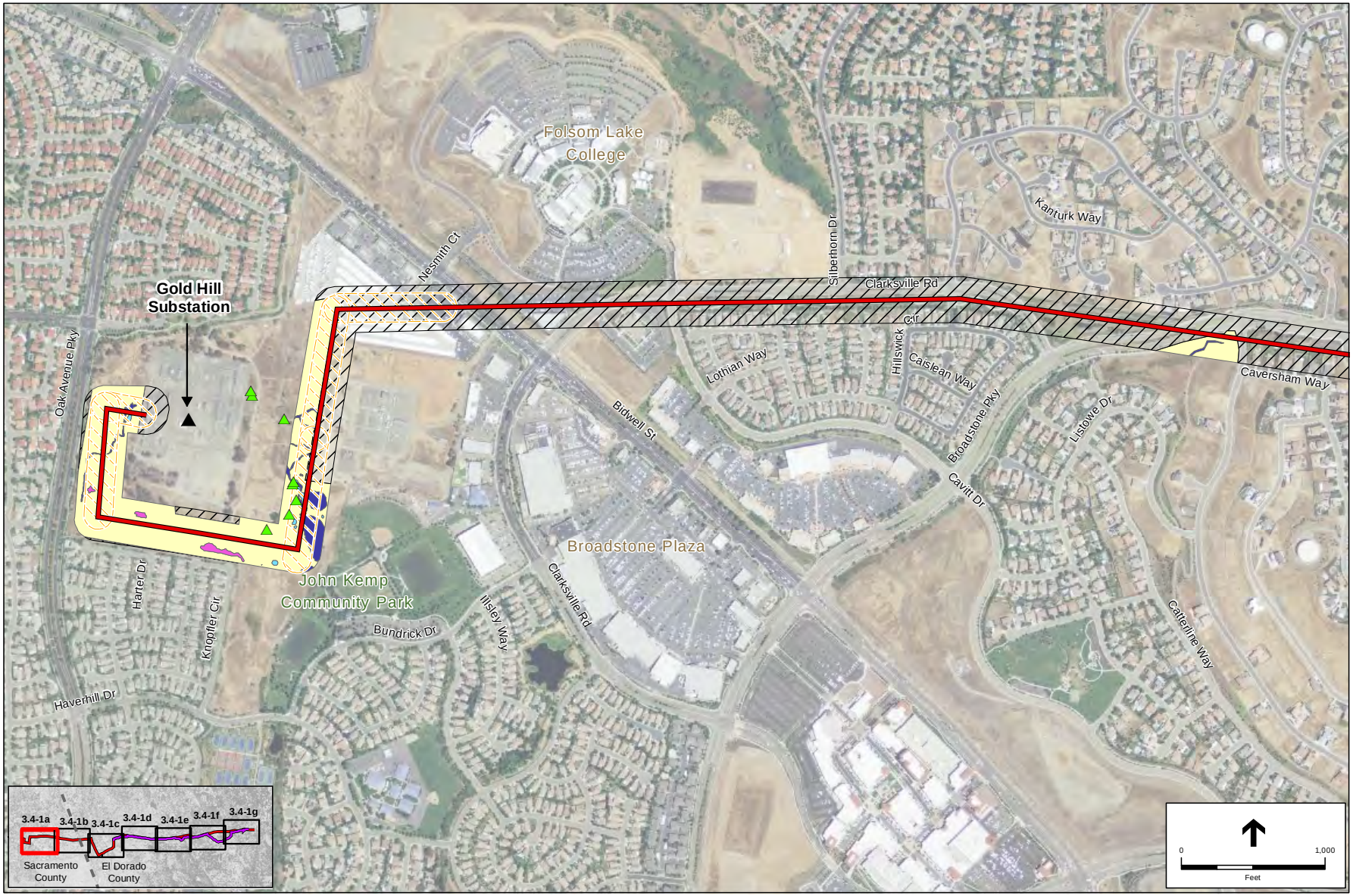
The Project is located between the City of Folsom in Sacramento County and the community of Shingle Springs in El Dorado County. This location corresponds to Sections 1-7, 9-12 of Township 9 North, Range 8 East and Sections 1-10 of Township 9 North, Range 9 East of the Folsom, Clarksville, and Shingle Springs, California U.S. Geological Survey (USGS) 7.5-minute quadrangles (see Figure 2-1: Project Location in *Chapter 2, Project Description*). Elevation in the Project area ranges from approximately 350 feet (107m) above mean sea level (msl) at the Gold Hill Substation to 1,575 feet (465m) above msl at the Shingle Springs Substation. The Project is situated within the Lower Foothills Metamorphic Belt ecological subsection of the Sierra Nevada foothills ecological section (McNab and Avers, 1994). This region experiences a two-season Mediterranean-type climate that is characterized by wet cool winters and dry warm summers. Precipitation occurs primarily between November and April, and the average annual rainfall ranges between 20 and 40 inches (51-102 centimeters [cm]). Light snowfall occurs in some winters at higher elevations in the Project area. Little to no precipitation occurs during the summer months. The average temperature ranges between 55 to 64 degrees Fahrenheit (°F) (12-18 degrees Celsius [°C]) (McNab and Avers, 1994). Vegetation types in the Project area include nonnative grassland, oak woodlands, chaparral/scrub, riparian forest, and wetlands. Waterbodies include Deer Creek, Alder Creek, Natomas Ditch, Willow Creek, Carson Creek, Marble Creek, and Old Mill Creek.

Vegetation Communities

Survey Methods

Field surveys to delineate vegetation communities and identify special-status[4] plant species within the Project area were conducted by Stillwater Sciences on April 9-13 and 26-27, 2012 to capture early-blooming plant species and May 23-25 and 29-31, 2012 to capture late-blooming plant species (**Figures 3.4-1a** through **3.4-1g**) (Stillwater Sciences, 2013a). A supplemental survey was conducted by Stillwater Sciences on May 9-10, 2013 to identify late-blooming special-status plant species in the portions of the Gold Hill No. 1 power line that are separate from the Missouri Flat-Gold Hill power line, in the vicinity of the Limestone Substation, and for portions of the previously surveyed Missouri Flat-Gold Hill survey area that was bulldozed after the 2012 botanical surveys (Stillwater Sciences, 2013b). Surveys for special-status plant species

[4] The term "special-status" refers to those species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as "Threatened" or "Endangered" but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts. A principal source for this designation is the California "Special Animals List" maintained by the CDFG. CEQA also provides protection not only for State-listed or Federally-listed species, but also for any species that can be shown to meet the criteria for listing (CEQA Guidelines Section 15380). For purposes of this analysis, "special-status species" also include raptors (birds of prey), which, along with other taxa, are specifically protected under Department of Fish and Game (DFG) Code §3511 (Birds), §4700 (Mammals), §5050 (Reptiles and Amphibians), §5515 (Fish) and §3503.5, which prohibits the take, possession, or killing of raptors and owls, their nests, and their eggs. The inclusion of birds protected by DFG Code §3503.5 is in recognition of the fact that these birds are substantially less common in California than most other birds, having lost much of their habitat to development, and that the populations of these species are therefore substantially more vulnerable to further loss of habitat and to interference with nesting and breeding than are most other birds. Lastly, disruption of any of any nesting migratory bird is not permitted under the Migratory Bird Treaty Act and the DFG Code (see below). As such, nesting migratory birds are considered special-status in this analysis.



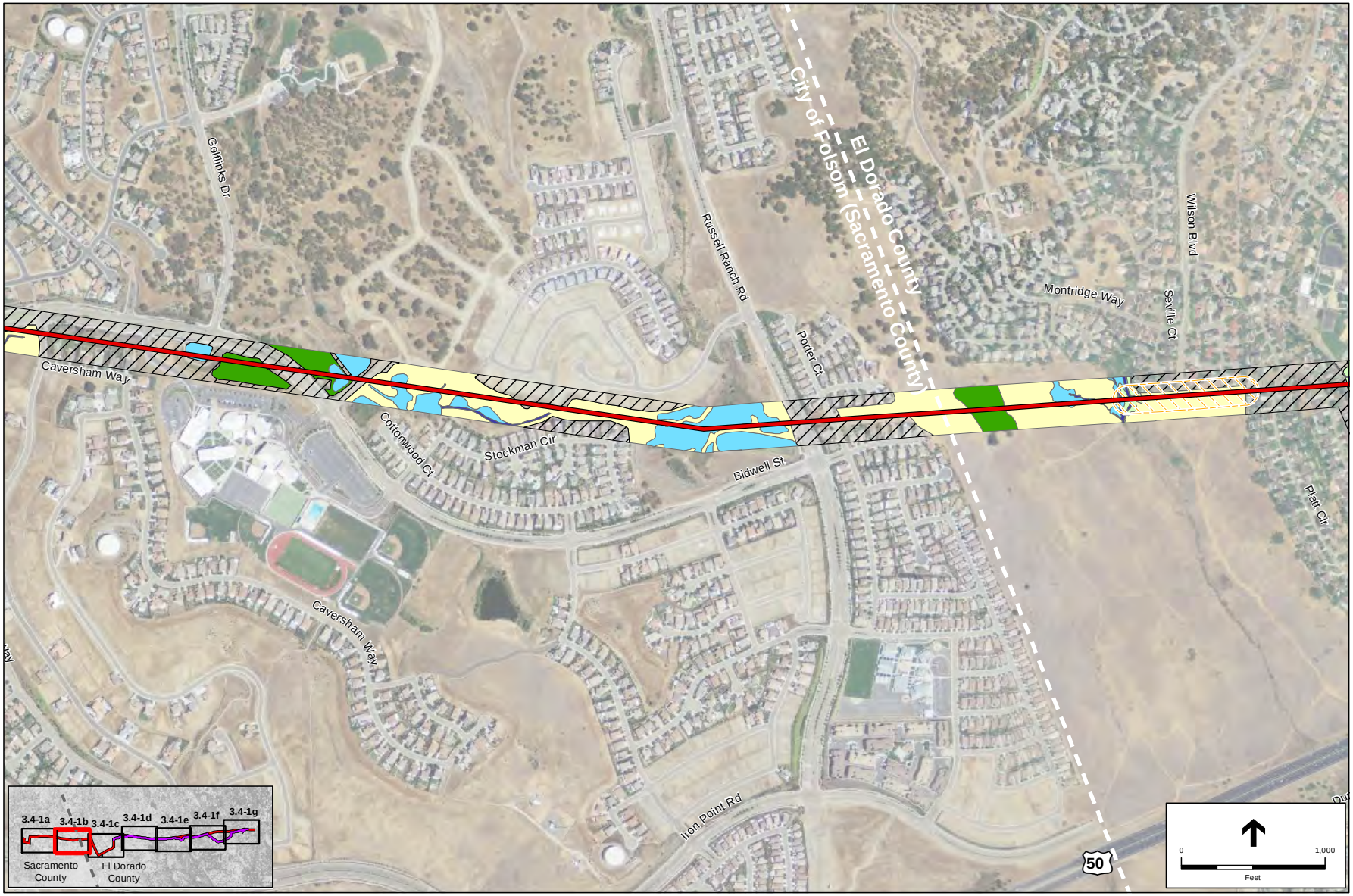
Substation
Elderberry Occurence
Staging Area
Gold Hill No 1 (GH)
60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH)
115 kV Power Line Reconductoring
Potential Pull Site

Habitat
Annual grassland
Freshwater emergent wetland
Other Waters
Urban
Vernal pool

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1a
Habitat Types
(Panel 1 of 7)



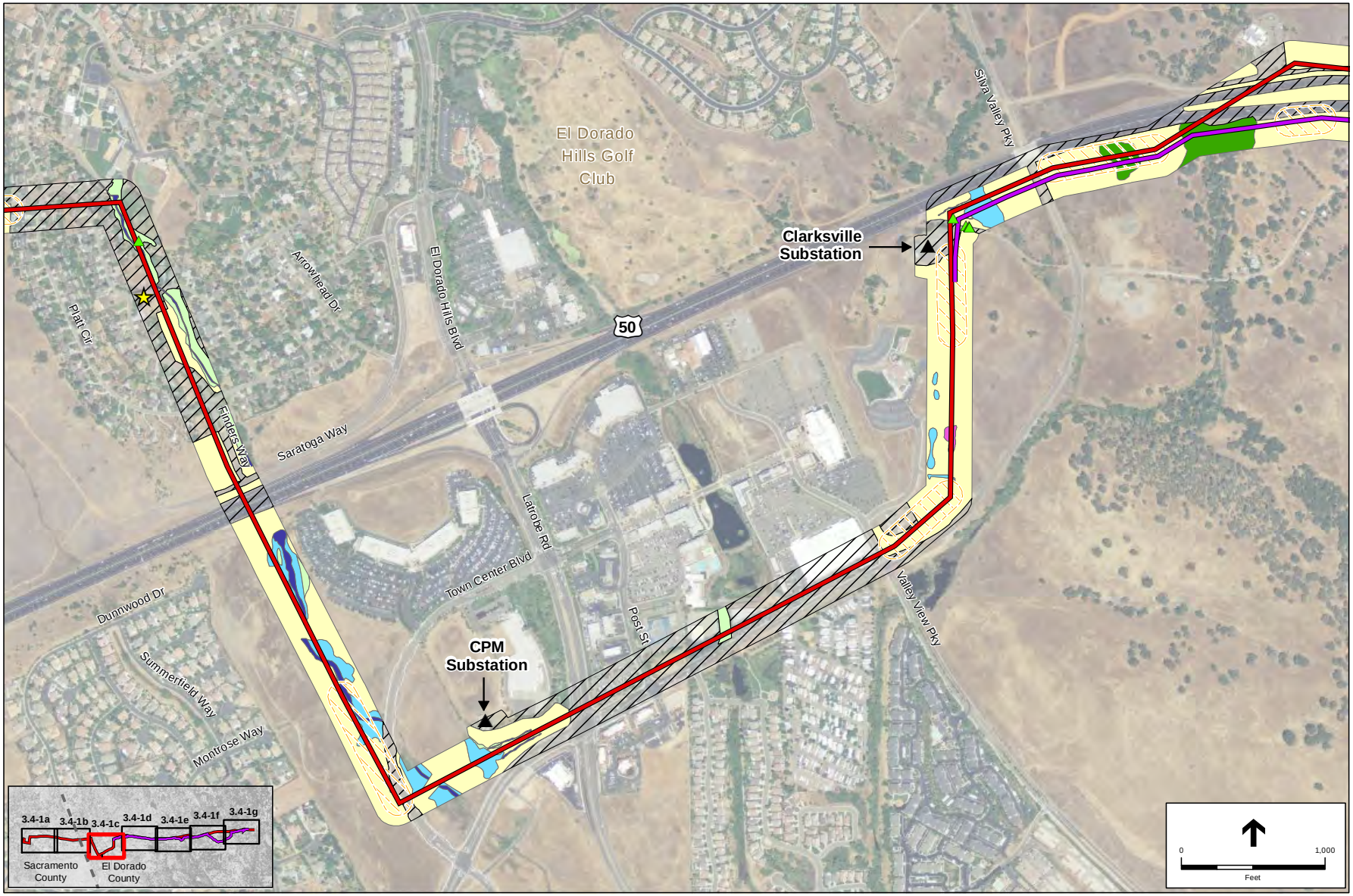
Substation
Staging Area
Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
Potential Pull Site

Habitat
Annual grassland
Blue oak woodland
Freshwater emergent wetland
Other Waters
Urban
Valley foothill riparian

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1b
Habitat Types
(Panel 2 of 7)



- Substation
- Elderberry Occurence
- Staging Area
- Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
- Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
- Potential Pull Site

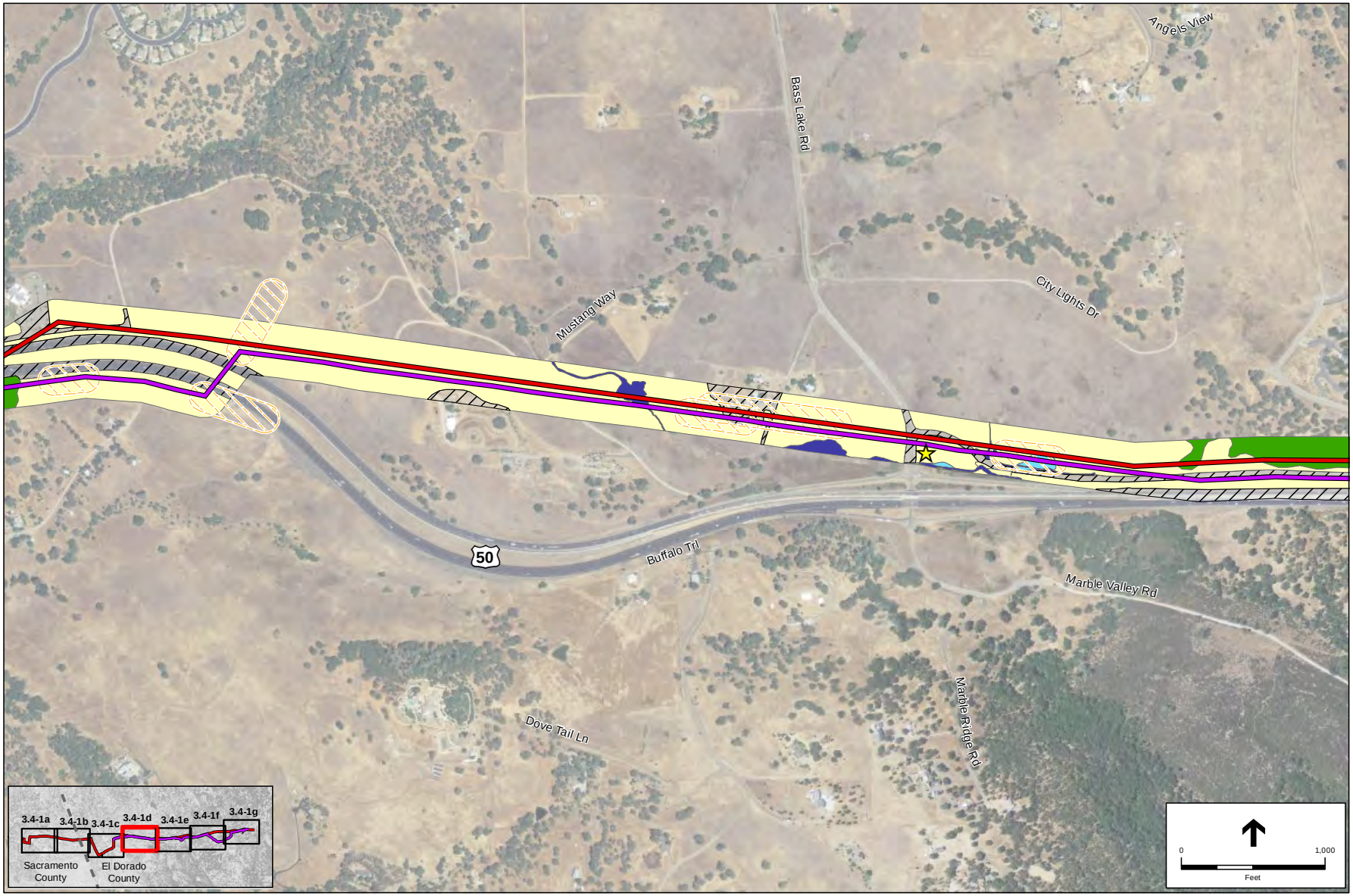
Habitat

- Annual grassland
- Blue oak woodland
- Freshwater emergent wetland
- Other Waters
- Urban
- Valley foothill riparian
- Vernal pool

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1c
Habitat Types
(Panel 3 of 7)



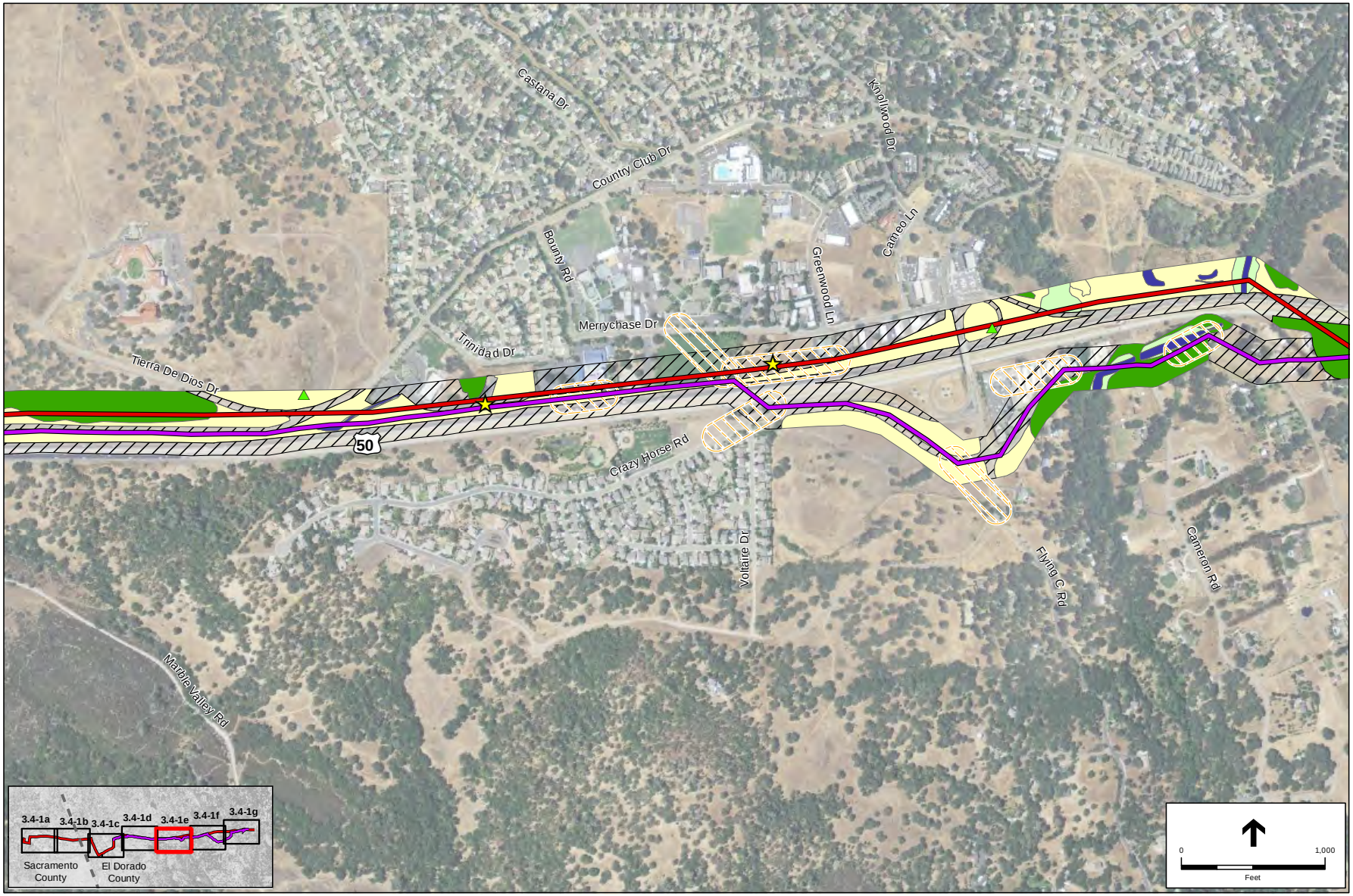
Substation
Staging Area
Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
Potential Pull Site

Habitat
Annual grassland
Blue oak woodland
Freshwater emergent wetland
Other Waters
Urban

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1d
Habitat Types
(Panel 4 of 7)



- Substation
- Elderberry Occurence
- Staging Area
- Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
- Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
- Potential Pull Site

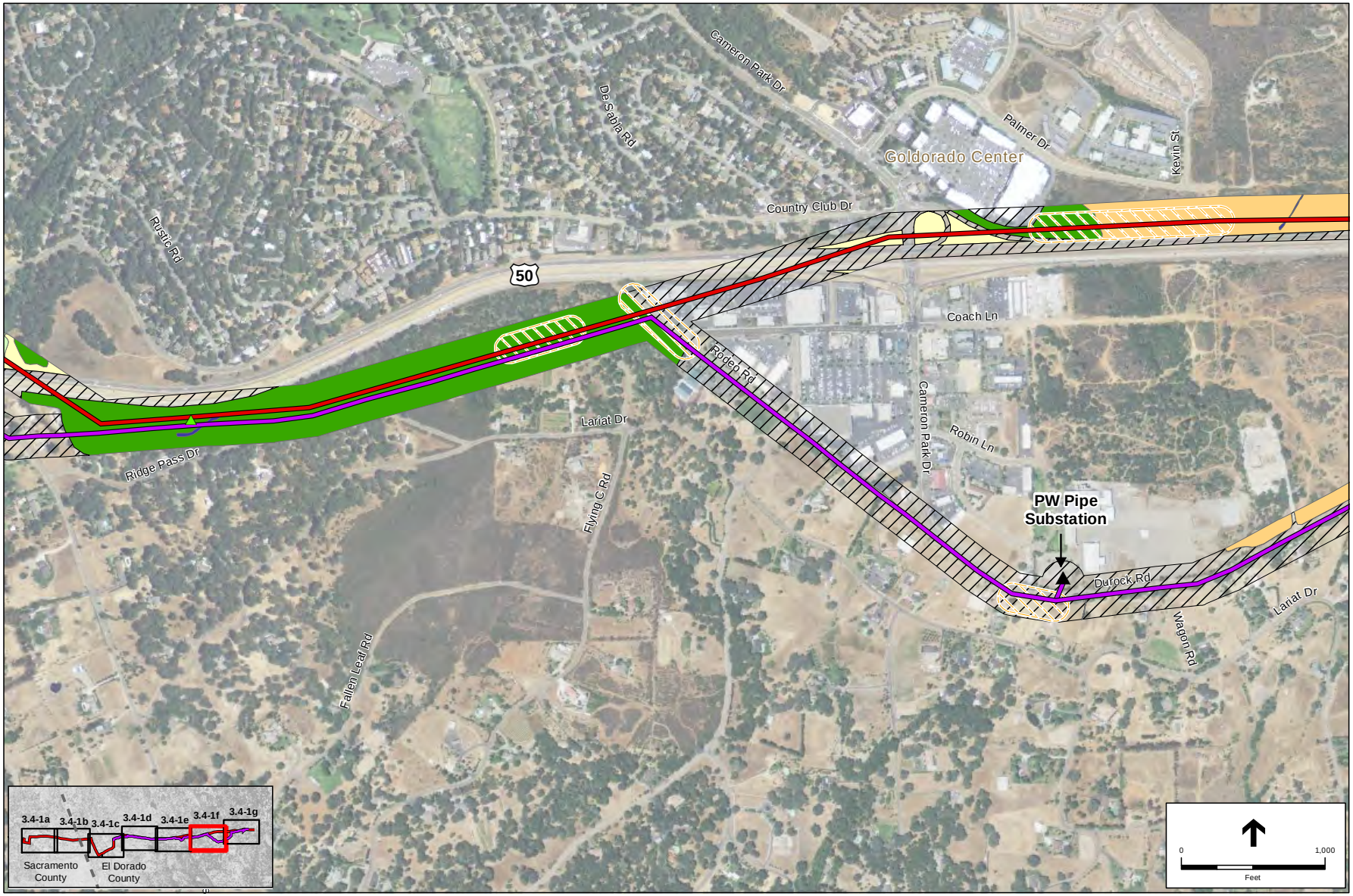
Habitat

- Annual grassland
- Blue oak woodland
- Freshwater emergent wetland
- Other Waters
- Urban
- Valley foothill riparian

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1e
Habitat Types
(Panel 5 of 7)



- Substation
- Elderberry Occurence
- Staging Area
- Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
- Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
- Potential Pull Site

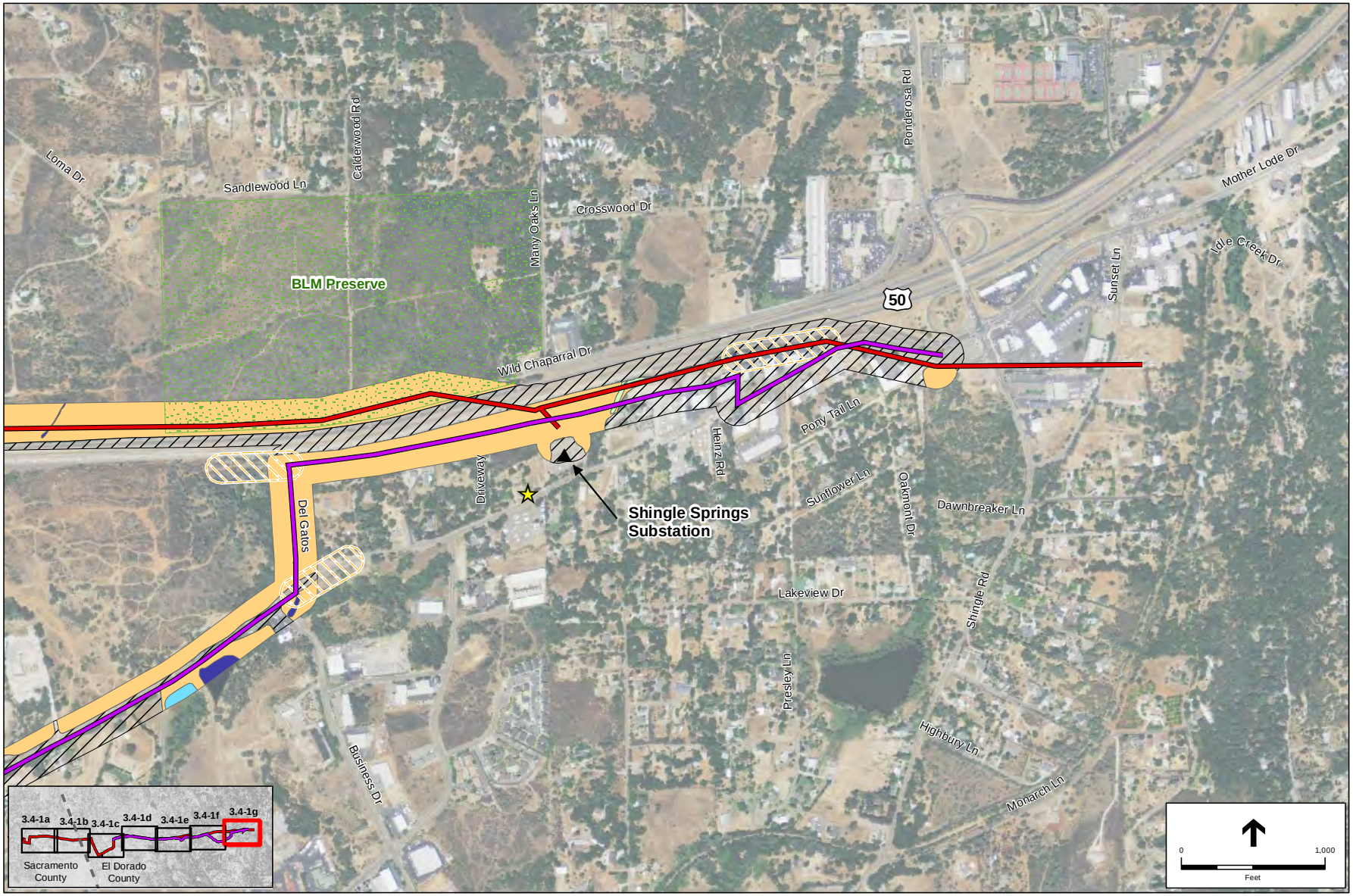
Habitat

- Annual grassland
- Blue oak woodland
- Mixed chaparral
- Other Waters
- Urban
- Valley foothill riparian

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1f
Habitat Types
(Panel 6 of 7)



- Substation
- Staging Area
- Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
- Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
- Potential Pull Site
- BLM Preserve

Habitat

- Freshwater emergent wetland
- Mixed chaparral
- Other Waters
- Urban
- Valley foothill riparian

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1g
Habitat Types
(Panel 7 of 7)

were conducted in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS, 1996a), *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFG, 2009), and Chapter IV of the *BLM Handbook on Special Status Plant Management* (BLM, 2012). Survey vegetation types were classified using the California Wildlife Habitat Relationship (CWHR) habitat classification scheme (Mayer and Laudenslayer, 1988) and vegetation alliances and associations described in *A Manual of California Vegetation* (Sawyer et al., 2009). Special-status natural communities were classified according to the most recent CDFW *List of Vegetation Alliances and Associations* as being critically imperiled (state ranking of S1), imperiled (S2), or vulnerable (S3) (CDFG 2010). Refer to the Missouri Flat-Gold Hill Biological Resources Technical Report (Stillwater Sciences, 2013a) for detailed description of survey methods and guideline references.

Water and wetland features in the project area were delineated in accordance with U.S. Army Corps of Engineers methods by a team of Stillwater Sciences wetland specialists and botanists on April 9–13 and 26–27, May 31, and June 12, 2012. Mapped wetlands were later classified according to the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979), based on the vegetation composition and structure at the sample points; this classification is consistent with CDFW and USFWS methods of identifying wetlands. The *Delineation of Waters and Wetlands* (Stillwater Sciences, 2013c) assessed the water and wetland resources in the Project area; (2) delineated any waters of the U.S., including wetlands, that are subject to the jurisdiction of the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act; (3) delineated any waters of the State that may be subject to the jurisdiction of the State Water Resources Control Board; and delineated open waters (e.g., lakes and streams) that may be subject to DFG §1602. In addition, biologists from Environmental Science Associates visited the Project area on October 30, 2013 to confirm the presence and distribution of biological resources within the Project area, including in the vicinity of the Shingle Springs Substation, BLM Preserve, and Clarksville Substation.

Baseline Vegetation Communities

Generally, the Project region contains blue oak-foothill pine forest, chaparral, blue oak woodland, interior live oak woodland, valley needlegrass grassland, and mixed chaparral vegetation communities. Vegetation in the Project area includes open grassy fields (30% of the Project area), oak and riparian woodlands (11% of the Project area), and chaparral and scrub (9% of the Project area). Approximately 288.1 acres or 45% of the 634.7-acre Project area is occupied by development (Stillwater Sciences, 2013a). In areas with natural vegetation, annual grassland and blue oak woodland dominates the landscape in the western segments of the Project area and mixed chaparral is dominant in the east. Figures 3.4-1a through 3.4-1g, derived from the Missouri Flat-Gold Hill Biological Resources Technical Report (Stillwater Sciences, 2013a), shows existing vegetation types occurring in the Project area.

Freshwater emergent wetlands, other waters (e.g., riverine), vernal pools, and valley foothill riparian vegetation are scattered throughout the Project area (Figures 3.4-1a through 3.4-1g). The location, extent, and conditions of waters and wetlands in the Project area are also described in

additional detail in the *Delineation of Waters and Wetlands* (Stillwater Sciences, 2013c) and shown on **Figures 3.4-1h** through **3.4-1n**.

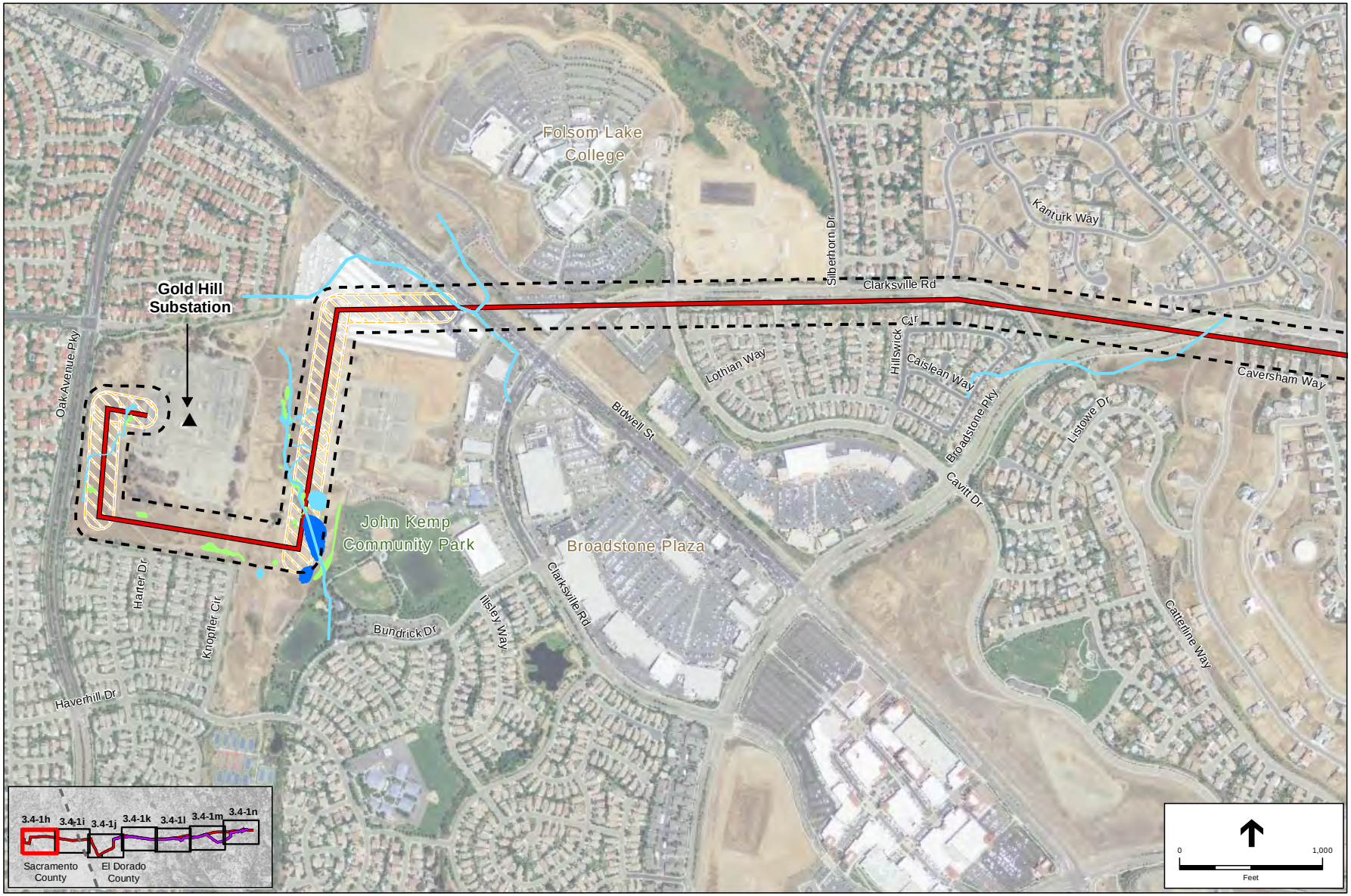
Three vegetation types that are regulated as rare natural communities by the California Department of Fish and Wildlife (CDFW) were identified in the Project area: white leaf manzanita/Sonoma sage chaparral (*Arctostaphylos viscida/Salvia sonomensis* Association) (Stillwater Sciences, 2013a); Fremont's goldfields-Downingia vernal pools (*Lasthenia fremontii-Downingia (bicornuta)* Herbaceous Alliance); and water blinks-annual checkerbloom vernal pools (*Montia fontana-Sidalcea calycosa* Herbaceous Alliance) (Stillwater Sciences, 2013a).

Annual Grassland. Vegetation in the Project area is dominated by annual grassland; this habitat encompasses 198.6 acres (80.4 hectares) and is widely distributed throughout the Project area (Stillwater Sciences, 2013a). Prevalent annual grassland species include nonnative, annual grasses such as rip-gut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceous*), medusa-head (*Elymus caput-medusa*), smooth barley (*Hordeum murinum*), and rye grass (*Festuca perennis*; formerly *Lolium multiflorum*).

Blue Oak Woodland. Approximately 61.1 acres (24.7 hectares) of blue oak woodlands occur in the western and middle portions of the Project area (Stillwater Sciences, 2013a). At lower elevations, blue oak woodlands are dominated by blue oaks and include foothill pine and interior live oak as common associates. The understory is dominated by nonnative, annual grasses such as rip-gut grass, soft chess, medusa-head, smooth barley, and rye grass. At the upper elevations of the Project area, blue oak woodland contains a mix of interior live oak and blue oaks.

Gabbroic Chaparral. Approximately 53.4 acres (21.6 hectares) of gabbroic (mixed) chaparral primarily occurs on the eastern end of the Project area, in and adjacent to the BLM Pine Hill Preserve (Stillwater Sciences, 2013a). Within the Project area this habitat type is heavily influenced by the gabbroic soils formed from weathered gabbrodirite rocks, which greatly influences the vegetation patterns. North of Highway 50, the overstory of this vegetation type is dominated by sticky whiteleaf manzanita (*Arctostaphylos viscida*), western redbud (*Cercis occidentalis*), chamise (*Adenostoma fasciculatum*), and Pine Hill ceanothus (*Ceanothus roderickii)*, which is federally listed as endangered and state-listed as rare. Special-status herbaceous species present include Stebbins' morning glory (*Calystegia stebbinsii*), Red Hills soaproot (*Chlorogalum grandiflorum*), Layne's ragwort (*Packera layneae*), and El Dorado County mule ears (*Wyethia reticulata*). Where Sonoma sage (*Salvia sonomensis*) dominates the understory, such as in portions of the BLM Pine Hill Preserve, gabbroic chaparral is most equivalent to the *Arctostaphylos viscida/Salvia sonomensis* (white leaf manzanita/Sonoma sage chaparral) Association (Sawyer et al. 2009), which is a rare natural community (CDFG, 2010).

Valley Foothill Riparian. Approximately 7.6 acres (3.1 hectares) of valley foothill riparian vegetation occurs in the Project area; primarily along waterways with year-round flow (Stillwater Sciences, 2013a). In the tree-dominated areas, the overstory is dominated by Fremont cottonwood (*Populus fremontii* subsp. *fremontii*), valley oak (*Quercus lobata*), interior live oak, and blue oak. Associated species include California buckeye, tree of heaven (*Ailanthus altissima*), white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), western sycamore (*Platanus racemosa*),

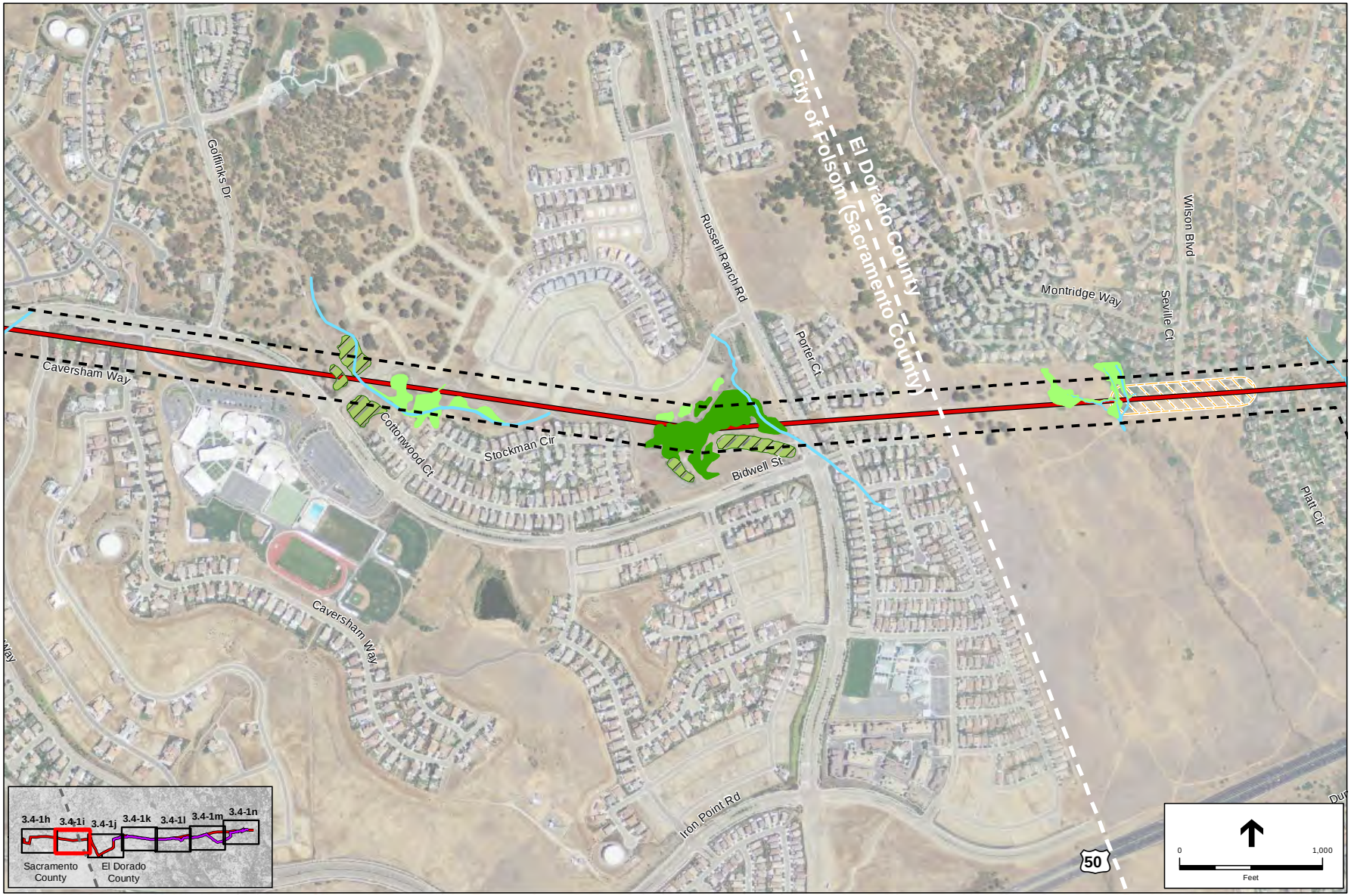


Substation
Staging Area
Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
Potential Pull Site
Project Area
Wetlands
Seasonal
Other waters and tributaries
Perennial
Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1h
Wetland Resources
(Panel 1 of 7)

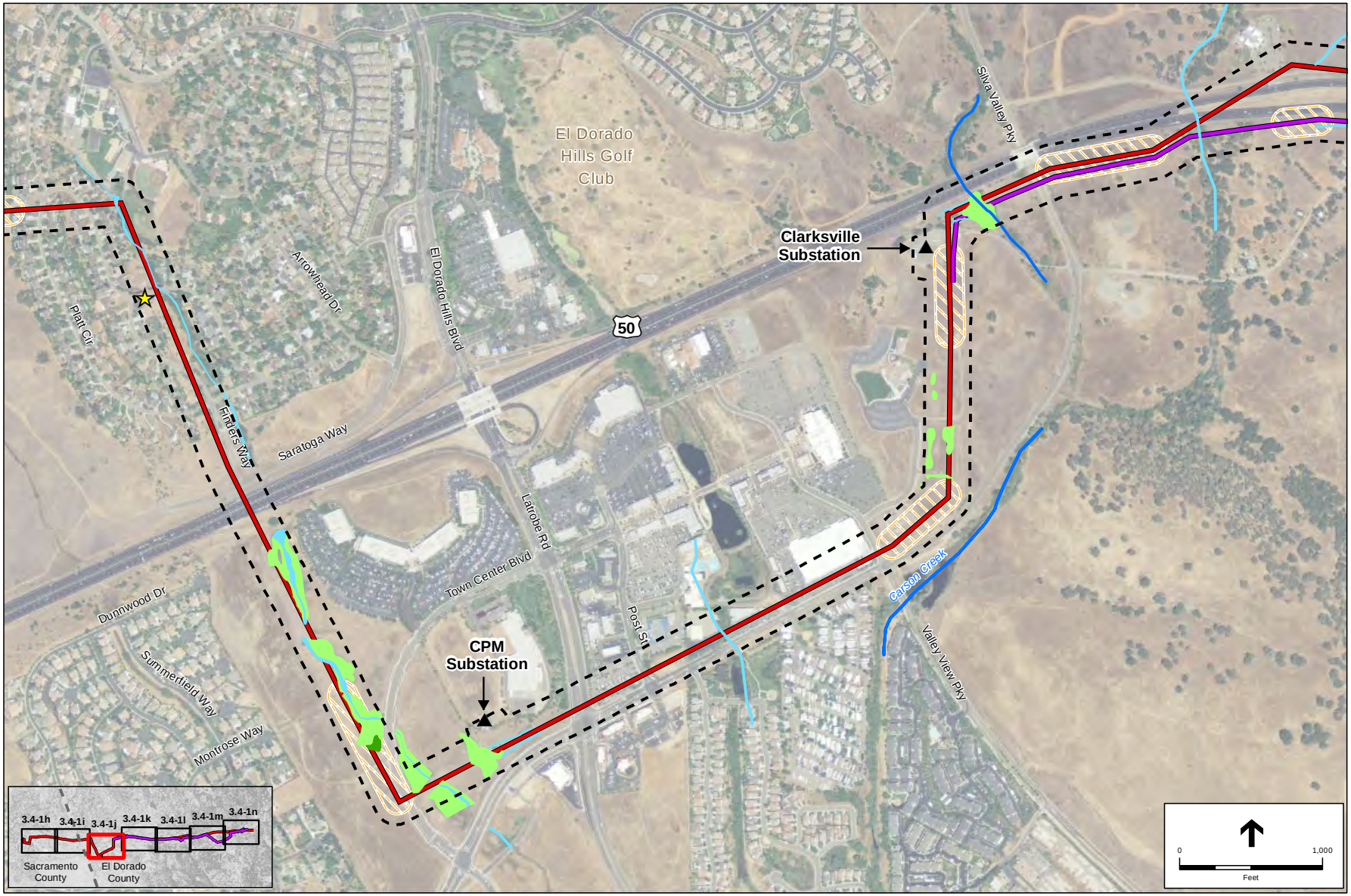


Substation
Staging Area
Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
Potential Pull Site
Project Area
Wetlands
Constructed wetland/ Stormwater basin
Perennial
Seasonal
Other waters and tributaries
Perennial
Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1i
Wetland Resources
(Panel 2 of 7)

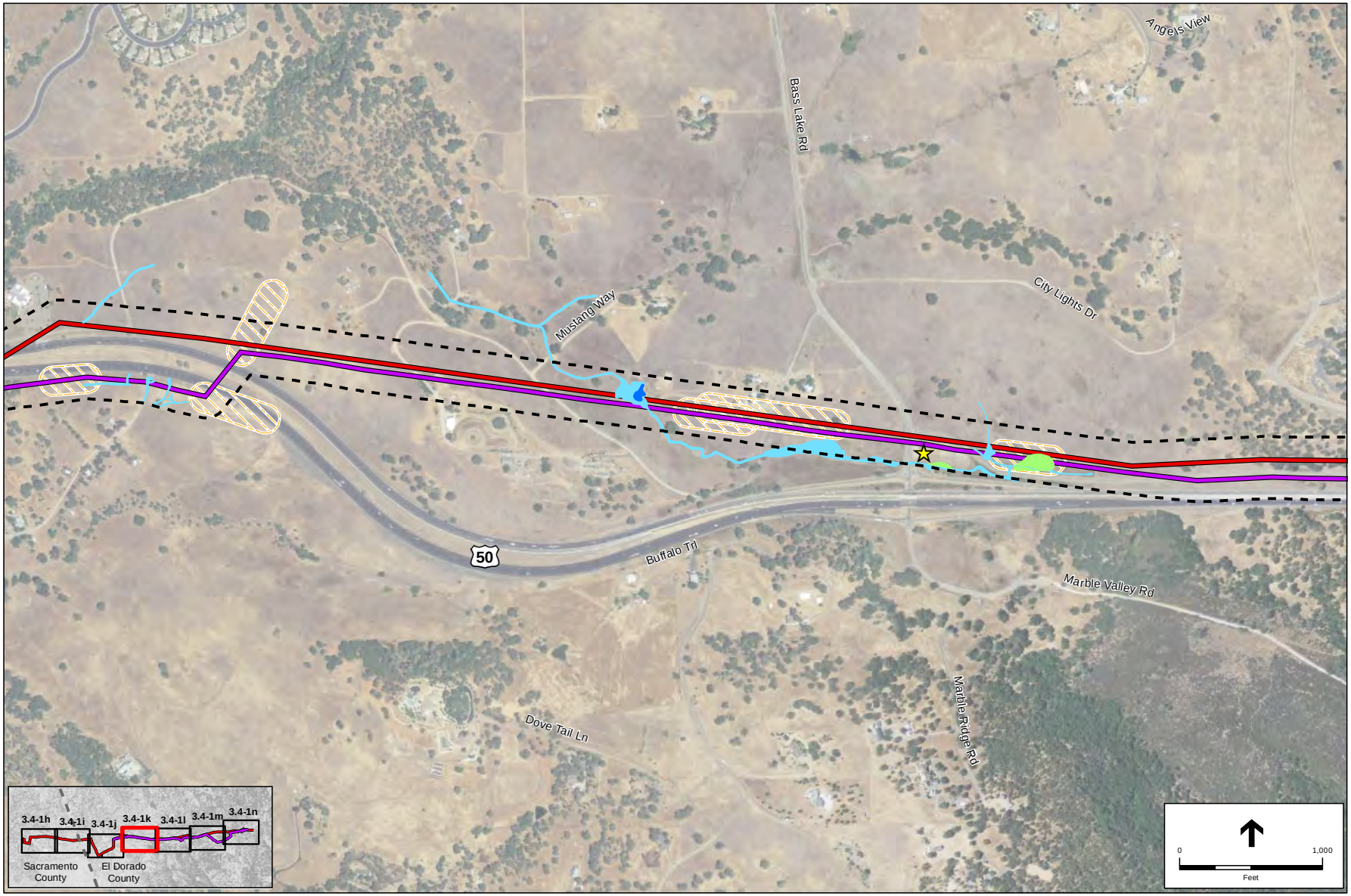


Substation
Staging Area
Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
Potential Pull Site
Project Area
Wetlands
Perennial
Seasonal
Other waters and tributaries
Perennial
Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1j
Wetland Resources
(Panel 3 of 7)

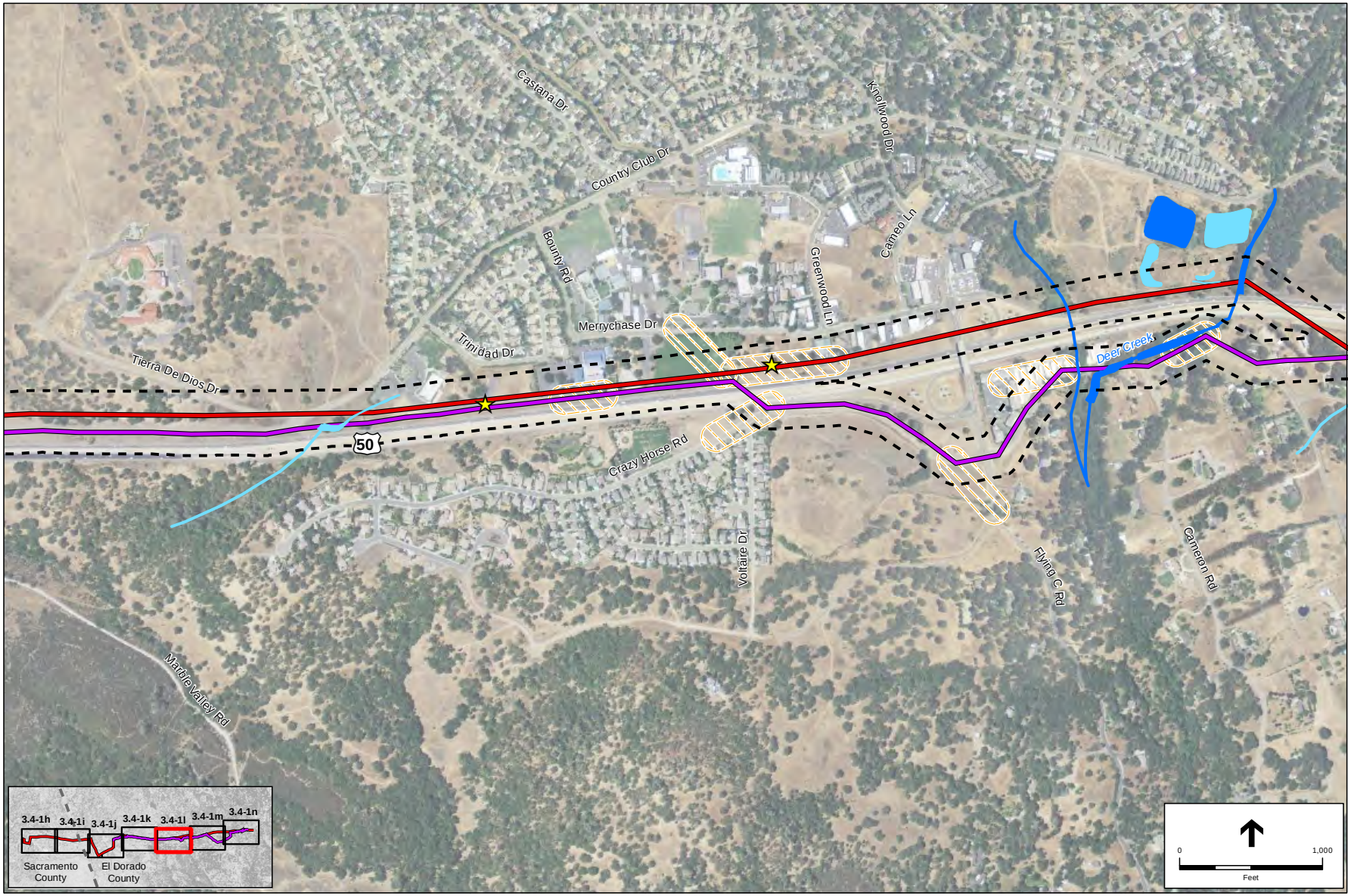


Substation
Staging Area
Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
Potential Pull Site
Project Area
Wetlands
Seasonal
Other waters and tributaries
Perennial
Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1k
Wetland Resources
(Panel 4 of 7)



- Substation
- Staging Area
- Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
- Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
- Potential Pull Site
- Project Area

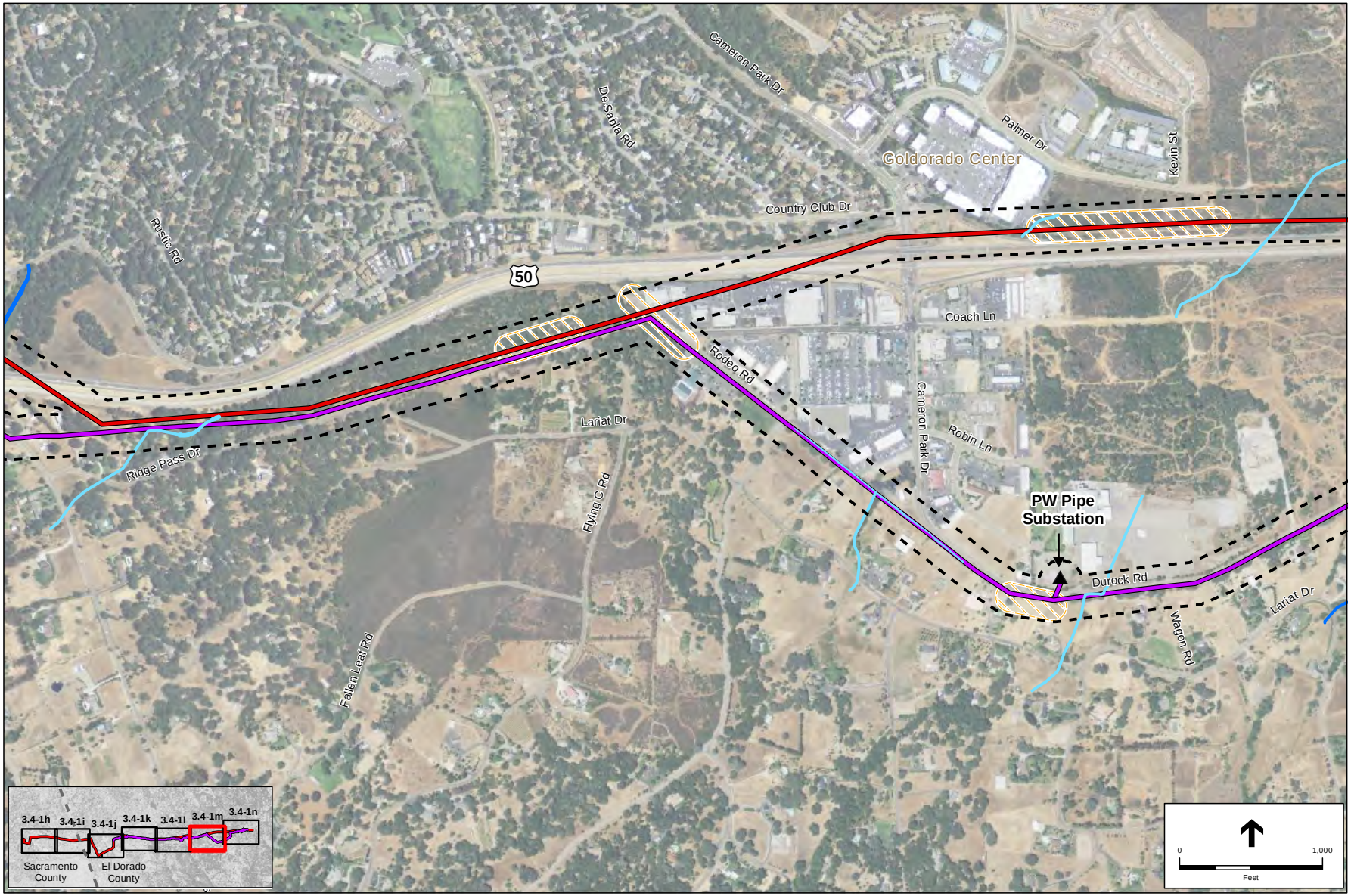
Other waters and tributaries

- Perennial
- Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1l
Wetland Resources
(Panel 5 of 7)

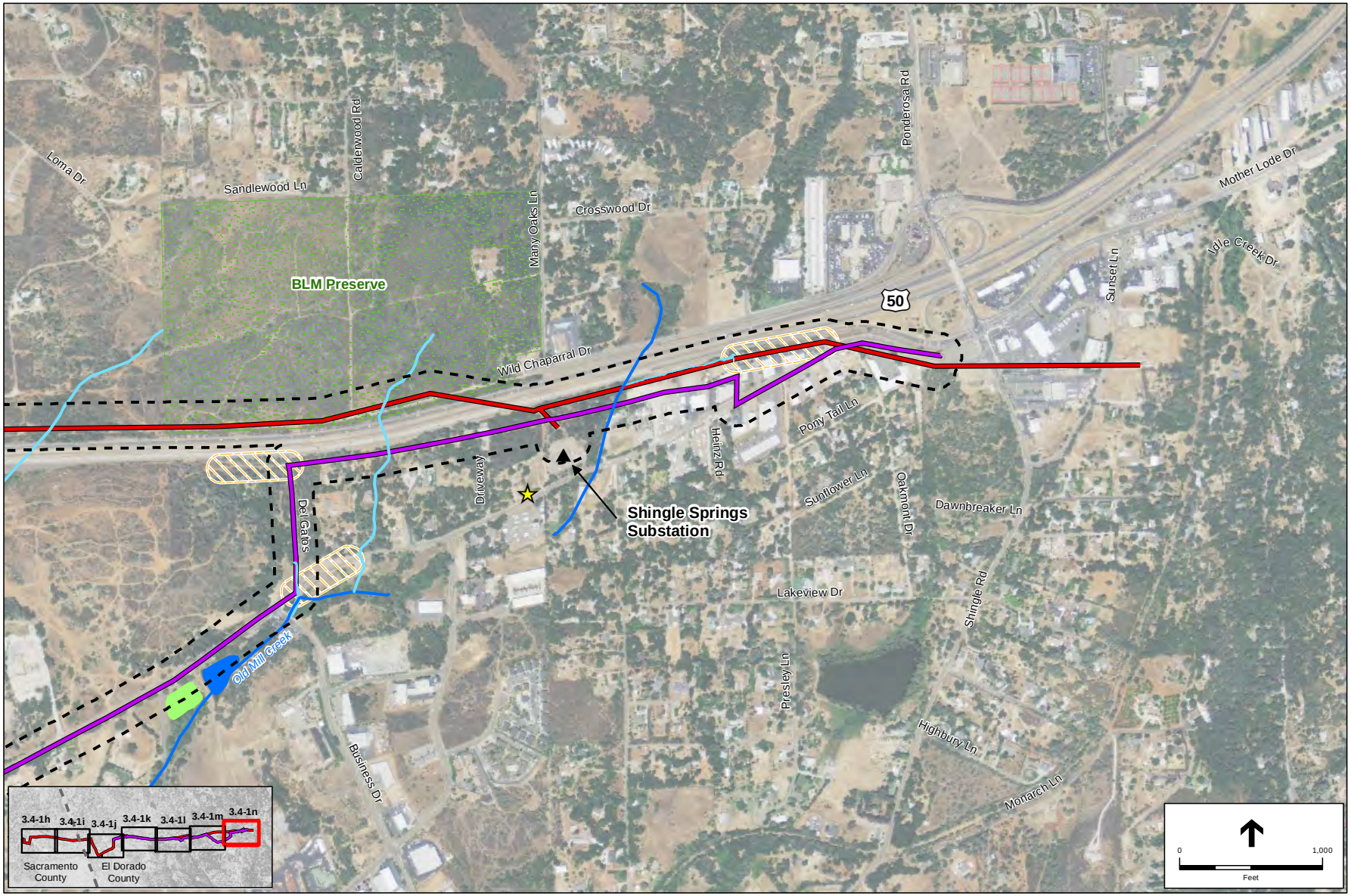


Substation
Staging Area
Gold Hill No 1 (GH)
60 kV Power LIne Reconductoring
Missouri Flat-Gold Hill (MF-GH)
115 kV Power Line Reconductoring
Potential Pull Site
Project Area
Other waters and tributaries
Perennial
Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1m
Wetland Resources
(Panel 6 of 7)



- Substation
- Staging Area
- Gold Hill No 1 (GH) 60 kV Power LIne Reconductoring
- Missouri Flat-Gold Hill (MF-GH) 115 kV Power Line Reconductoring
- Potential Pull Site
- BLM Preserve
- Project Area

Wetlands

- Seasonal

Other waters and tributaries

- Perennial
- Seasonal

SOURCE: Stillwater Sciences, 2013

Missouri Flat Project . D207584.16

Figure 3.4-1n
Wetland Resources
(Panel 7 of 7)

Prunus sp. (cultivated plum), and black locust (*Robinia pseudoacacia*). Shrub species include Himalayan blackberry, California blackberry (*Rubus ursinus*), narrow-leaved willow (*Salix exigua*), red willow (*Salix laevigata*), Pacific willow (*Salix lasiandra*; formerly *Salix lucida* subsp. *lasiandra*), arroyo willow (*Salix lasiolepis*), blue elderberry (*Sambucus nigra* subsp. *coerulea*; formerly *Sambucus mexicana*), and California wild grape (*Vitis californica*).

Freshwater Emergent Wetland. Aquatic habitats in the Project area include freshwater emergent wetland (approximately 16.0 acres/6.5 hectares), which is characterized by erect, rooted, herbaceous hydrophytes that are present for most of the growing season in most years (Stillwater Sciences, 2013a; 2013c). Freshwater emergent wetland includes both seasonal and permanent wetlands (wetland types, locations, and extent are described in greater detail in the *Delineation of Waters and Wetlands for the Missouri Flat-Gold Hill Transmission Line Reconductoring Project* (Stillwater Sciences, 2013c) and shown in Figures 3.4-1h through 3.4-1n. Seasonal wetlands occur in drainages, swales, and depressional basins that are dry during the summer, but inundated or saturated during the winter. One seasonal pond occurs at a tower located approximately 800 feet northwest of the intersection of Broadstone Parkway and Empire Ranch Road. Permanent wetlands also occur throughout the Project area where standing water is common through much of the spring and summer due to direct precipitation and/or surface runoff.

Vernal Pool. The project area contains approximately 0.6 acre (0.2 hectares) of vernal pools located in the western portion of the Project area. These occur in depressional basins, and are inundated for a few weeks to several months each winter by precipitation and/or overland flow. Plant species characteristic of vernal pools in the Project area include Fremont's goldfields (*Lasthenia fremontii*), hyssop loosestrife (*Lythrum hyssopifolia*), Great Valley coyote-thistle (*Eryngium castrense*), and wavy-stemmed popcornflower (*Plagiobothrys undulatus*). Aquatic invertebrates were observed at one vernal pool feature (VP3, sampling point No. 12) (Stillwater Sciences, 2013c). In the Project area, vernal pools are most equivalent to the *Lasthenia fremontii-Downingia (bicornuta)* Herbaceous Alliance (Fremont's goldfields-Downingia vernal pools) and *Montia fontana-Sidalcea calycosa* Herbaceous Alliance (water blinks-annual checkerbloom vernal pools) (Sawyer et al., 2009), which are both rare natural communities (CDFG, 2010).

Other Waters of the U.S. and Waters of the State. Approximately 9.1 acres (3.7 hectares) of other waters and tributaries are present in the Project area, including ditches and creeks (Stillwater Sciences, 2013c). Deer Creek (a tributary to Cosumnes River), Carson Creek and Marble Creek (both tributaries to Deer Creek), Alder Creek and Willow Creek (both tributaries to Lake Natoma and American River), and several of their unnamed tributaries intersect the Project area. In the Project area, waters of the U.S. and waters of the State are equivalent (Stillwater Sciences, 2013c).

Constructed Wetlands/Stormwater Basins. Approximately 1.7 acres (0.7 hectares) of constructed wetlands that serve as stormwater detention basins are located in the western portion of the Project area, near Broadstone Parkway (Stillwater Sciences, 2013c).

Special-Status Species

Special-status species are legally protected under the State and federal Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are classified under the following categories:

1. Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]).

2. Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (61 FR 40, February 28, 1996);

3. Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations [CCR] 670.5);

4. Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);

5. Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (State CEQA Guidelines, Section 15380);

6. Plants considered under the CNPS to be "rare, threatened or endangered in California" (California Rare Plant Rank 1A, 1B, and 2 in CNPS, 2013) as well as California Rare Plant Rank 3 and 4[5] plant species;

7. Species designated by CDFW as Fully Protected or as a Species of Special Concern;

8. Species protected under the federal Bald and Golden Eagle Protection Act; and

9. Species designated as Sensitive by BLM.

Wildlife

Following a review of the California Natural Diversity Database (CNDDB), USFWS list of federally listed and proposed endangered, threatened, and candidate species, and available project literature including the PEA (PG&E, 2013b) and *Biological Resources Technical Report* (Stillwater Sciences, 2013a), thirty-one special-status wildlife species were analyzed to consider their potential presence in the project area. Fourteen of these species were eliminated from further consideration due to lack of suitable habitat within or adjacent to the Project area, and/or Project location outside of the species' current range. The analysis included determinations based on individual species range of activity and potential for occurrence within a distance of the Project

[5] List 3 plants may be analyzed under CEQA §15380 if sufficient information is available to assess potential impacts to such plants. Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not. CNPS List 3 and 4 may be considered regionally significant if, e.g., the occurrence is located at the periphery of the species' range, or exhibits unusual morphology, or occurs in an unusual habitat/substrate. For these reasons, CNPS List 3 and 4 plants should be included in the special-status species analysis. List 3 and 4 plants are also included in the California Natural Diversity Database's (CNDDB) Special Plants, Bryophytes, and Lichens List. [Refer to the current online published list available at: http://www.dfg.ca.gov/biogeodata.].

area where the species could potentially be impacted by Project activities. Those special-status wildlife species considered to have a low, moderate, or high potential to occur in the Project area are identified in **Table 3.4-1a**. A special-status species' potential to occur in the project area is defined as follows:

- **Unlikely:** The project area and/or surrounding area do not support suitable habitat for a particular species, or the project site is outside of the species known range.
- **Low Potential:** The project area and/or immediate area only provide limited amounts and low quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate project area.
- **Medium Potential:** The project area and/or immediate area provide suitable habitat for a particular species.
- **High Potential:** The project area and/or immediate area provide ideal habitat conditions for a particular species and/or known populations occur in immediate area and/or within the project site.

Conclusions regarding habitat suitability and species occurrence are based on the review of existing literature and databases as well as reconnaissance surveys conducted by Stillwater Sciences (2013a) and Environmental Science Associates biologists.

Special-status species with high potential to occur within the Project area include: western (Pacific) pond turtle (*Actinemys marmorata*) and coast horned lizard (*Phrynosoma blainvillii*). Special-status species with moderate potential to occur within the Project area include: vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), western spadefoot (*Spea hammondii*), white-tailed kite (*Elanus leucurus*), western burrowing owl (*Athene cunicularia*), tricolored blackbird (*Agelaius tricolor*), Cooper's hawk (*Accipiter cooperi*), pallid bat (*Antrozous pallidus*), and American badger (*Taxidea taxus*). These findings are supported by literature research, a review of species natural distribution, habitat associations, and recent occurrences (CDFW, 2014), and consideration of existing vegetation communities within the Project area. Additionally, conclusions regarding special-status species potential to occur within the Project area are supported by literature research and field surveys conducted by Stillwater Sciences (Stillwater Sciences, 2013a).

Invertebrates

In the Project area, habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp is present in seasonal wetlands, seasonal depressions, and vernal pools around Gold Hill Substation, as well as in similar habitats approximately 1.5 miles (2.4 km) to the east (Figures 3.4-1a through 3.4-1g). A portion of other wet and/or ponded areas varying in size (but greater than 6.5 ft^2 [0.6 m^2]) provide suitable habitat for these invertebrates in the vicinity of the Gold Hill Substation (Stillwater Sciences, 2013a). Seasonal depression, wetland, and vernal pool features farther east in the Project area beyond the Gold Hill Substation are outside of vernal pool fairy shrimp's and vernal pool tadpole shrimp's current distribution.

TABLE 3.4-1a
POTENTIAL FOR SPECIAL-STATUS WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

Common Name (*Scientific name*)	Query Sources[b]	Status[a] Federal/ State	Distribution in California	Habitat Association	Likelihood to Occur in Project Area
Invertebrates					
Conservancy fairy shrimp (*Branchinecta conservatio*)	USFWS	FE/–	Disjunct occurrences in Tehama, Glenn, Butte, Yolo, Solano, Stanislaus, Merced, and Ventura counties	Large, deep vernal pools in annual grasslands	Unlikely. The project area is outside of the species' known range.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	CNDDB, USFWS	FT, Designated Critical Habitat/–	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County	Vernal pools; also found in sandstone rock outcrop pools; artificial pools include tire ruts, road ditches, and puddles	**Moderate.** Vernal pools and seasonal wetlands in the project area provides suitable habitat for this species.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	CNDDB, USFWS	FE, Designated Critical Habitat/–	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds; artificial pools include tire ruts, road ditches, and puddles	**Moderate.** Vernal pools and seasonal wetlands in the project area provides suitable habitat for this species.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	CNDDB, USFWS	FT, Designated Critical Habitat/–	Throughout the Central Valley	Riparian and oak savanna habitats below 915 m (3,000 ft) with host plant, blue elderberry (Sambucus nigra subsp. coerulea)	**Moderate.** Elderberry plants occur in the project area and provides suitable habitat for this species.
Fish					
Steelhead, Central Valley DPS *Oncorhynchus mykiss*	USFWS	FT, Designated Critical Habitat/–	Sacramento and San Joaquin rivers and their tributaries,	Rivers and streams with cold water, clean gravel of appropriate size for spawning, and suitable rearing habitat; typically rear in freshwater for one or more years before migrating to the ocean	Low. Species is not expected to occur in Deer Creek (the only perennially wet tributary in the project area); water temperatures expected to be too high during the summer rearing period (Lindley et al. 2006).
Chinook salmon, central Valley spring-run ESU *Oncorhynchus tshawytscha*	USFWS	FT, Designated Critical Habitat/ST	Sacramento River and its tributaries (Deer, Mill, Antelope, Battle, Beegum, Butte, and Big Chico creeks and the Feather and Yuba rivers)	Low- to mid-elevation rivers and streams with cold water, clean gravel for spawning and adequate rearing habitat; typically rear in freshwater for one or more years before outmigration	Low. Species is not expected in Deer Creek; summer holding habitat was not identified; also, species not known from Consumnes River, presumably due to low summer flows (Yoshiyama et al. 2001).
Chinook salmon, Sacramento River winter-run ESU *Oncorhynchus tshawytscha*	USFWS	FE, Designated Critical Habitat/SE	Sacramento River and its tributaries; Sacramento-San Joaquin Delta; San Francisco, San Pablo and Suisun bays	Mainstem river reaches with cool water and available spawning gravel; rear five to ten months in the river and estuary; migrate to the ocean to feed and grow until sexually mature	Unlikely. The project area is outside of the species' known range.
Delta smelt *Hypomesus transpacificus*	USFWS	FT/SE	Found only in the Sacramento-San Joaquin Estuary, including the lower reaches of Sacramento and Napa rivers; the Delta including Suisun Bay, Goodyear, Suisun, Cutoff, First Mallard, and Montezuma sloughs	Estuarine or brackish waters up to 18 parts per thousand (ppt); spawn in shallow brackish water upstream of the mixing zone (zone of saltwater-freshwater interface) where salinity is around 2 ppt	Unlikely. There is no estuarine habitat in the project area and the project area is outside of the species' known range.

TABLE 3.4-1a (Continued)
POTENTIAL FOR SPECIAL-STATUS WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

Common Name (*Scientific name*)	Query Sources[b]	Status[a] Federal/ State	Distribution in California	Habitat Association	Likelihood to Occur in Project Area
Fish (cont.)					
Hardhead *Mylopharadon conocephalus*	CNDDB	–/SSC	Sacramento and San Joaquin river drainage and the Russian River	Low- to mid-elevation rivers and streams with high water quality. Typically found where summer water temperatures exceed 20 °C.	Unlikely. While found in Deer Creek downstream of the Deer Creek Waste Water Treatment Plant, the species is not expected to occur upstream in the vicinity of the project area due to a migration barrier (Stillwater Sciences, 2013a).
Amphibians					
California tiger salamander (*Ambystoma californiense*)	USFWS	FT/ST	Very fragmented; along the coast from Sonoma County to Santa Barbara County, in the Central Valley and Sierra foothills from Sacramento County to Tulare County	Grassland, oak savannah, or edges of woodland that provide subterranean refuge (typically mammal burrows); breeds in nearby temporary ponds, vernal pools, or slow-moving parts of streams	Unlikely. The project area is outside of the species' known range.
Western spadefoot (*Spea hammondii*)	CNDDB	BLM/SSC	Near Redding, south throughout the Central Valley and nearby foothills; Coast Ranges south of Monterey Bay; and coastal southern California south of the Transverse Mountains and west of the Peninsular Mountains	Areas with sparse vegetation and/or short grasses in sandy or gravelly soils; primarily in washes, river floodplains, alluvial fans, playas, alkali flats, among grasslands, chaparral, or pine-oak woodlands; breeds in ephemeral rain pools with no predators	**Moderate.** Ephemeral pools in project area provide suitable habitat for this species.
California red-legged frog (*Rana draytonii*)	CNDDB, USFWS	FT, Designated Critical Habitat/SSC	Largely restricted to coastal drainages on the central coast from Mendocino County to Baja California; in the Sierra foothills south to Tulare and possibly Kern counties	Breeds in still or slow-moving water with emergent and overhanging vegetation, including wetlands, wet meadows, ponds, lakes, and low-gradient, slow moving stream reaches with permanent pools; uses adjacent uplands for dispersal and summer retreat	Low. Aquatic habitat features in the project area lack suitable characteristics for breeding or are otherwise poor in quality, and there is a lack of connectivity to the closest confirmed populations (Stillwater Sciences, 2013a).
Foothill yellow-legged frog (*Rana boylii*)	CNDDB	BLM/SSC	From the Oregon border along the coast to the Transverse Ranges, and south along the western side of the Sierra Nevada Mountains to Kern County; a possible isolated population in Baja California	Shallow tributaries and mainstems of perennial streams and rivers, typically associated with cobble or boulder substrate	Unlikely. The project area is outside of the species' range, and the nearest documented occurrence is more than 11 miles from the project area (CDFW, 2014).

TABLE 3.4-1a (Continued)
POTENTIAL FOR SPECIAL-STATUS WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

Common Name (*Scientific name*)	Query Sources[b]	Status[a] Federal/ State	Distribution in California	Habitat Association	Likelihood to Occur in Project Area
Reptiles					
Western pond turtle (*Actinemys marmorata*)	CNDDB	BLM/SSC	From the Oregon border along the coast ranges to the Mexican border, and west of the crest of the Cascades and Sierras	Permanent, slow-moving fresh or brackish water with available basking sites and adjacent open habitats or forest for nesting	**High.** Western pond turtle has been documented in the project area by Stillwater Sciences (2013a), and there are suitable perennial waterbodies in the project area.
Coast horned lizard (*Phrynosoma blainvillii*)	CNDDB	BLM/SSC	West of deserts and Cascade-Sierran highlands, as far north as Shasta Reservoir	Open areas with sandy soil and/or patches of loose soil and low/ scattered vegetation in scrublands, grasslands, conifer forests, and woodlands; frequently found near ant hills	**High.** Coast horned lizard has been documented in the BLM Pine Hill Preserve near the project area, and there is suitable chaparral habitat.
Giant garter snake (Thamnophis gigas)	USFWS	FT/ST	Central Valley from the vicinity of Burrel in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low-gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; also found in irrigation ditches and rice fields.	Unlikely. The project area is outside of the species' known range.
Birds					
White-tailed kite (*Elanus leucurus*)	CNDDB	–/SFP	Year-round resident; found in nearly all lowlands of California west of the Sierra Nevada mountains and the southeast deserts	Lowland grasslands and wetlands with open areas; nests in trees near open foraging area	**Moderate.** Trees near open foraging areas in the project area provide suitable nesting habitat for this species.
Bald eagle (*Haliaeetus leucocephalus*)	CNDDB	FD, BGEPA/SE, SFP	Permanent resident and uncommon winter migrant, found nesting primarily in Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity counties	Large bodies of water or rivers with abundant fish, uses adjacent snags or other perches; nests and winter communal roosts in advanced-successional conifer forest near open water	Unlikely. There is no suitable nesting or foraging habitat for bald eagles in the project area.
Northern goshawk (*Accipter gentilis*)	CNDDB	BLM/SSC	Nests in North Coast Ranges through Sierra Nevada, Klamath, Cascade, and Warner Mountains, in Mount Pinos and San Jacinto, San Bernardino, and White Mountains; winters along north coast, throughout foothills, and in northern deserts	Mature and old-growth stands of coniferous forest, middle and higher elevations; nests in dense part of stands near an opening	Unlikely. There is no suitable late-successional coniferous forest habitat in the project area.
Swainson's hawk (*Buteo swainsoni*)	CNDDB	–/ST	Summer resident; breeds in lower Sacramento and San Joaquin valleys, the Klamath Basin, and Butte Valley; highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields	Low. Trees near open foraging areas in the project area provide nesting habitat for Swainson's hawk; however, the project area is located at the eastern boundary of the species' distribution in the Central Valley.

TABLE 3.4-1a (Continued)
POTENTIAL FOR SPECIAL-STATUS WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

Common Name (*Scientific name*)	Query Sources[b]	Status[a] Federal/ State	Distribution in California	Habitat Association	Likelihood to Occur in Project Area
Birds (cont.)					
Golden eagle (*Aquila chrysaetos*)	CNDDB	BGEPA/SFP	Uncommon permanent resident and migrant throughout California, except center of Central Valley	Open woodlands and oak savannahs, grasslands, chaparral, sagebrush flats; nests on steep cliffs or large trees	Low. Though large, prominent trees and towers occur in the project area; close proximity to busy roads and highways makes golden eagle nesting unlikely.
California black rail (*Laterallus jamaicenis coturniculus*)	CNDDB	–/ST, SFP	Northern San Francisco Bay area (primarily San Pablo and Suisun bays) and Sacramento-San Joaquin Delta	Large tidally-influenced marshes with saline to brackish water, typically with a high proportion of pickleweed (*Salicornia virginica*); also can be associated with bulrush (*Schoenoplectus* spp.), cattail (*Typha* spp.), or rushes (*Juncus* spp.); peripheral vegetation at and above mean high higher water necessary to protect nesting birds during extremely high tides	Unlikely. There is no suitable tidal marsh habitat in the project area.
Burrowing owl (*Athene cunicularia*)	CNDDB	BLM/SSC	Year-round resident throughout much of the state; Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Level, open, dry, heavily grazed or low- stature grassland or desert vegetation with available burrows	**Moderate.** Burrowing owl may occur in low-stature grasslands if suitable mammal burrows are present.
Purple martin (*Progne subis*)	CNDDB	–/SSC	Summer resident and migrant; most densely populated in central and northern coastal conifer forests and more localized areas in the Sierra Nevada, interior foothills, and southern California; downtown Sacramento has a unique bridge-nesting population	Conifer, valley-foothill, montane-hardwood forests with large snags in open areas; most nest sites located in upper slopes of hilly terrain; occasionally bridges and nest boxes	Unlikely. The project area is outside of the species' known range.
Bank swallow (*Riparia riparia*)	CNDDB	–/ST	Summer resident in the Sacramento Valley from Tehama County to Sacramento County	Nests in vertical bluffs or banks, usually near water, in sand or sandy loam	Unlikely. There is no suitable bluff or bank habitat present in the project area.
Grasshopper sparrow (*Ammodramus savannarum*)	CNDDB	–/SSC	Summer resident; nests in Del Norte, Trinity, and Tehama counties south, west of the Cascade–Sierra Nevada axis and southeastern deserts, to San Diego County	Typically found in moderately open grasslands with scattered shrubs	**Moderate.** Suitable habitat such as moderately open grasslands is present within the project area.

TABLE 3.4-1a (Continued)
POTENTIAL FOR SPECIAL-STATUS WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

Common Name (*Scientific name*)	Query Sources[b]	Status[a] Federal/ State	Distribution in California	Habitat Association	Likelihood to Occur in Project Area
Birds (cont.)					
Tricolored blackbird (*Agelaius tricolor*)	CNDDB	BLM/SSC	Permanent resident, but makes extensive migrations both in breeding season and winter; common locally throughout Central Valley and in coastal areas from Sonoma County south	Feeds in grasslands and agriculture fields; nesting habitat components include open accessible water, a protected nesting substrate (including flooded or thorny vegetation), and a suitable nearby foraging space with adequate insect prey	**Moderate.** There is suitable nesting habitat present in freshwater marshes in the project area.
Mammals					
Pallid bat (*Antrozous pallidus*)	CNDDB	BLM/SSC	Throughout California except for the high Sierra Nevada and from Del Norte and western Siskiyou Counties to northern Mendocino County	Roosts in rock crevices, tree hollows, mines, caves, and a variety of vacant and occupied buildings; feeds in a variety of open habitats	**Moderate.** Pallid bat may roost on bridges in the project area.
Yuma myotis (*Myotis yumanensis*)	CNDDB	BLM/–	Widespread in most of California except the Mojave and Colorado Desert regions	Open forests and woodlands; roosts in buildings, mines, caves, crevices, or bridges near sources of water over which to feed	Unlikely. There is no suitable roosting habitat near a water source in the project area.
Pacific fisher (*Martes pennanti [pacifica*]) West Coast Distinct Population Segment	CNDDB	FC, /SSC	Two widely separated regions: the northern Coast Range and Klamath Province, and the southern Sierra Nevada	Late- successional conifer forests, with complex forest structure being more important than tree species; den in hollow trees and snags	Unlikely. There are no late- successional conifer forests in the project area.
American badger (*Taxidea taxus*)	CNDDB	–/SSC	Throughout the state except in the humid coastal forests of Del Norte County and the northwest portion of Humboldt County	Shrubland, open grasslands, fields, and alpine meadows with friable soils	**Moderate.** There is suitable habitat in moderately open grasslands in the project area, and in BLM Pine Hill Preserve.

a Status codes:

– = None

Federal

BGEPA = Protected under the Bald and Golden Eagle Protection Act
BLM = Designated as Sensitive by BLM
FC = Candidate for listing under the ESA
FD = Delisted from the ESA
FE = Endangered under the ESA
FT = Threatened under the ESA

State

SE = Endangered under the CESA
ST = Threatened under the CESA
SSC = CDFW Species of Special Concern
SFP = CDFW Fully Protected species

b SOURCES: CDFW, 2014; USFWS, 2014.

Valley elderberry longhorn beetle habitat is known to occur in the vicinity of the Gold Hill Substation, the Clarksville Substation, east of Platt Circle in El Dorado Hills, and near Cambridge Road and Country Club Drive in Cameron Park. Sixteen blue elderberry plants with one or more stems 1 in (2.5 cm) or greater in diameter were observed at these locations, as show in Figures 3.4-1a through 3.4-1g). Additionally, the two closest documented populations of valley elderberry longhorn beetle to the Project area are along Willow Creek, within one mile of the western end of the Project area (Stillwater Sciences, 2013a).

Fish

Deer Creek is the only creek with year-round flow in the Project area; there is low potential for Central Valley Steelhead and Central Valley spring-run Chinook salmon to occur within this creek. However, the segment of Deer Creek in the Project area does not provide suitable summer holding habitat for these species (Stillwater Sciences, 2013a). Thus, neither species is expected to occur in the channel year-round.

Amphibians

Potential breeding habitat for western spadefoot occurs in locations along the western third of the Project area with ephemeral ponding, including seasonal wetlands and vernal pools near Gold Hill Substation (Figures 3.4-1a through 3.4-1g). The Project area is at the eastern edge of the western spadefoot's current distribution (USFWS, 2005) and one CNDDB occurrence has been recorded for this species at approximately 4 mi (6.4 km) from the Gold Hill Substation at the western end of the Project area (CDFW, 2014).

Reptiles

The Project area has a high potential to support two special-status reptile species: the western pond turtle and coast horned lizard. A western pond turtle was incidentally observed during wildlife surveys in April 2001, basking in a stormwater detention pond at the southern edge of the Project area near the intersection of White Rock Road and Monte Verde Drive (Stillwater Sciences, 2013a). Additionally, western pond turtle is reported in Carson Creek near Latrobe Road (CDFW, 2014), less than 1 mi (1.6 km) south of the Project area. Suitable western pond turtle habitat occurs in permanent waterbodies in and near the Project area, including perennial tributaries and stormwater detention basins.

The coast horned lizard also has a high potential to occur within the Project area. Two occurrences are reported from the BLM Pine Hill Preserve (CDFW, 2014). Suitable habitat for this species occurs in chaparral habitat in the Preserve and adjacent lands with similar vegetation.

Birds

The Project area contains habitats that could support several special-status bird species, including white-tailed kite, western burrowing owl, Cooper's hawk, and tricolored blackbird. Additionally, many other common migratory birds may nest in or near the Project area (refer to the *Biological Resources Technical Report*, pp. 52-56 [Stillwater Sciences, 2013a]). Sightings of white-tailed kite are fairly common in the Project region (eBird, 2014). A historical occurrence of a white-tailed kite nesting occurs approximately 0.5 mi (0.8 km) north of the Project area between Golf

Links Drive and Empire Ranch Road (CDFW, 2014). Potential nesting habitat for white-tailed kite occurs in the Project area where there are tall, isolated trees adjacent to open grassland, meadows, or marshes for foraging. There are three documented occurrences of burrowing owl within 1 and 3 miles (1.6 and 4.8 km) of the Project area, southeast of the Gold Hill Substation (CDFW, 2014). Potentially suitable burrowing owl nesting habitat occurs in open grassland areas in the western half of the Project area where small mammal burrows and artificial nesting areas (e.g., debris piles and culverts) are present. Cooper's hawk is known to occur in the vicinity of the Project area (eBird, 2014), specifically north of White Rock Road, approximately one mile west of Grant Line Road (CDFW, 2014). A colony of tricolored blackbirds has been documented near the Project area in a small pond approximately 150 ft (46 m) south of Highway 50, between the Bass Lake Road and Cameron Park exits off Highway 50 in 1987 (CDFW, 2014). While the pond still exists, future nesting of tricolored blackbirds at that site is unlikely due to urban development which replaced suitable foraging habitat. Suitable nesting habitat for tricolored blackbird occurs in freshwater marshes containing nesting substrate such as cattails, tules, blackberry brambles, or willows in the Project area.

Mammals

Special-status mammal species with potential to occur in the Project area include the pallid bat and American badger. Pallid bats may use bridge crossings within the Project area as roost habitat and will use a variety of open habitats to forage.

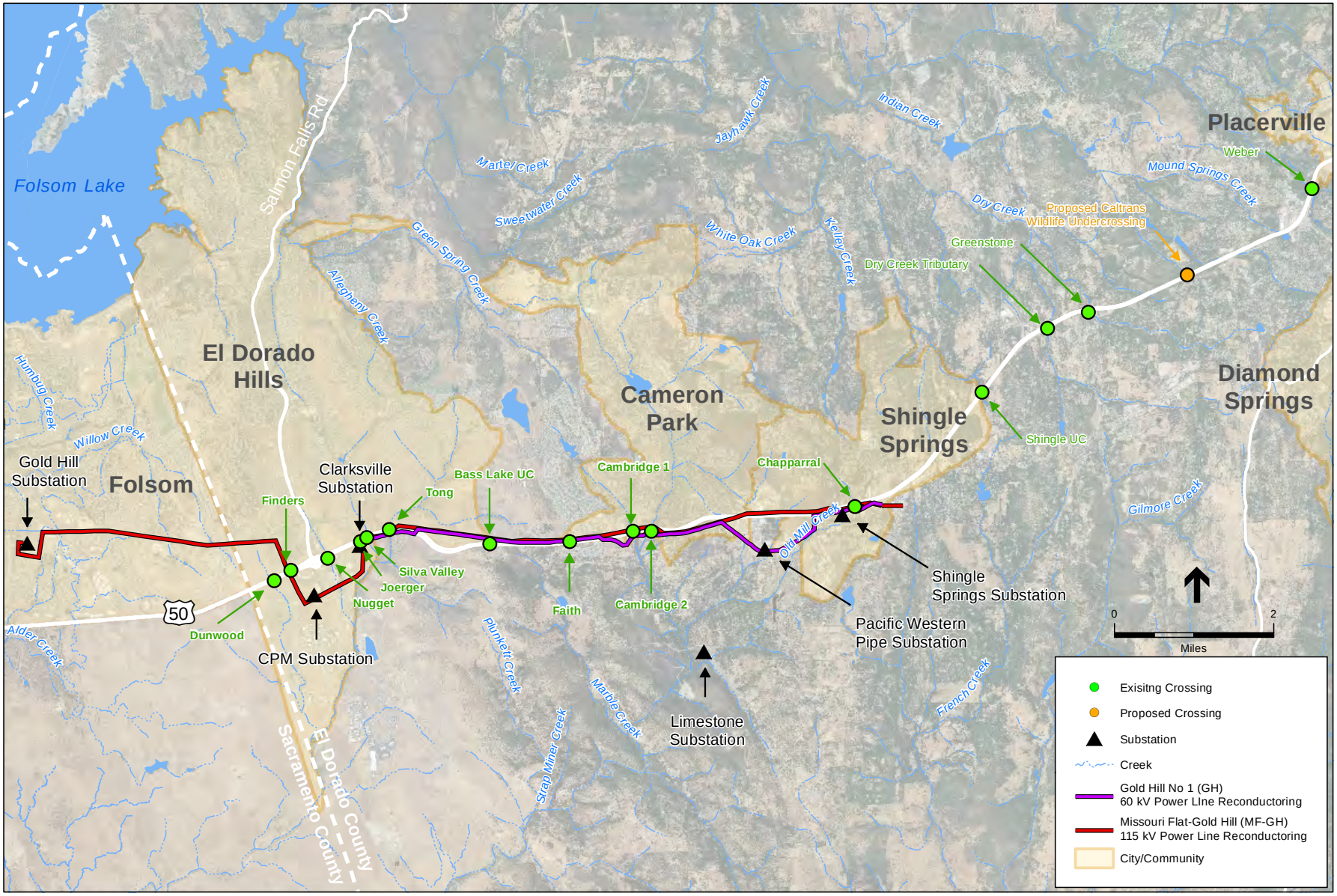
American badgers may occur in open expanses of grassland habitat located between Empire Ranch Road and Cambridge Road in locations with friable soil. Additionally, chaparral habitat in BLM's Pine Hill Preserve provides suitable habitat for American badger.

Wildlife Corridors

The *Final Wildlife Movement and Corridors Report*, published and accepted by the El Dorado County Board of Supervisors on December 7, 2010, is part of Phase I of the County's *Integrated Natural Resources Management Plan* (INRMP) (Sierra Ecosystem Associates, 2010). The *Final Wildlife Movement and Corridors Report* identified several potential wildlife crossing locations under Highway 50 in or adjacent to the Project area; these locations include Dunwood Drive, Finders Way, Joerger Cutoff Road, Silva Valley Parkway, and Tong Road in the form of corrugated culvert pipe, concrete box culvert, and bridge under-crossing (**Figure 3.4-1o**) (Sierra Ecosystems Associates, 2010).

Plants

Twenty-six special-status plant species were identified from the database queries conducted in 2013 and updated in 2014 (USFWS, 2014; CNDDB, 2014; CNPS, 2014); special-status plant species considered to have a low, moderate, or high potential to occur in the Project area are identified in **Table 3.4-1b**. These determinations are supported by literature research, a review of species natural distribution, habitat associations, and recent occurrences (CDFW, 2014), and consideration of existing vegetation communities within the Project area. Additionally, conclusions regarding special-status species potential to occur within the Project area are supported by focused botanical surveys conducted by Stillwater Sciences (Stillwater Sciences, 2013a; 2013b).



SOURCE: AECOM, 2013; Sierra Ecosystem Associates, 2010

Missouri Flat Project . D207584.16

Figure 3.4-1o

Locations of Highway 50 Wildlife Crossings

TABLE 3.4.1b
POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR IN THE PROJECT AREA

Common Name	Scientific Name	Query Sources[b]	Status[a] Federal/State/ CRPR	Blooming Period	Elevation Range ft (m)	Suitable Habitat Type	Likelihood of Occurrence in Project Area
adobe navarretia	*Navarretia nigelliformis* ssp. *nigelliformis*	CNPS	–/–/4.2	April–June	328–3,281 ft (100–1,000 m)	Clay, sometimes serpentinite soils in vernally mesic valley and foothill grassland and sometimes vernal pools.	**Moderate**. Suitable habitat is present in the project area.
Ahart's dwarf rush	*Juncus leiospermus* var. *ahartii*	CNPS, CNDDB	–/–/1B.2	March–May	98–751 ft (30–229 m)	Mesic valley and foothill grassland.	Unlikely. Project area is out of species' elevation range.
big-scale balsamroot	*Balsamorhiza macrolepis*	CNPS, CNDDB	–/–/1B.2	March–June	295–5,102 ft (90–1,555 m)	Chaparral, cismontane woodland, and sometimes serpentinite valley and foothill grassland.	**Moderate**. Suitable habitat is present in the project area.
Bisbee Peak rush-rose	*Helianthemum suffrutescens*	CNPS, CNDDB	–/–/3.2	April–June	148–2,756 ft (45–840 m)	Chaparral often in serpentinite, gabbroic, or Ione soil.	**High.** Species was previously documented in the project area (CDFW, 2014).
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	CNPS, CNDDB	–/SE/1B.2	April–August	33–7,792 ft (10–2,375 m)	Along lake margins in marshes and swamps and clay vernal pools	**Moderate**. Suitable habitat is present in the project area.
Brandegee's clarkia	*Clarkia biloba* ssp. *brandegeeae*	CNPS, CNDDB	–/–/4.2	May–July	240–3,002 ft (73–915 m)	Chaparral, cismontane woodland, and lower montane coniferous forest, often along roadcuts.	**Moderate**. Suitable habitat is present in the project area.
hispid bird's-beak	*Chloropyron molle* ssp. *hispidum*	CNPS, CNDDB	–/–/1B.1	June–September	3–509 ft (1–155 m)	Meadows, playas, and valley and foothill grassland.	**Moderate.** Suitable habitat is present in the project area.
Congdon's onion	*Allium sanbornii* var. *congdonii*	CNPS	–/–/4.3	April–July	984–3,248 ft (300–990 m)	Serpentinite or volcanic chaparral and cismontane woodland.	**Moderate**. Suitable habitat is present in the project area.
dubious pea	*Lathyrus sulphureus* var. *argillaceus*	CNPS	–/–/3	April–May	492–1,001 ft (150–305 m)	Cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest.	Unlikely. Project area is out of the species' elevation range.
dwarf downingia	*Downingia pusilla*	CNPS, CNDDB	–/–/2.2	March–May	3–1,460 ft (1–445 m)	Mesic valley and foothill grassland and vernal pools.	**Moderate**. Suitable habitat is present in the project area.

TABLE 3.4.1b (Continued)
POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR IN THE PROJECT AREA

Common Name	Scientific Name	Query Sources[b]	Status[a] Federal/State/ CRPR	Blooming Period	Elevation Range ft (m)	Suitable Habitat Type	Likelihood of Occurrence in Project Area
El Dorado County mule ears	*Wyethia reticulata*	CNPS, CNDDB	BLM/–/1B.2	April–August	607–2,067 ft (185–630 m)	Chaparral, cismontane woodland, and clay or gabbroic soils in lower montane coniferous forest.	**High**. Species was previously documented in the project area (CDFW, 2014).
Jepson's onion	*Allium jepsonii*	CNPS, CNDDB	–/–/1B.2	April–August	984–4,331 ft (300–1,320 m)	Chaparral, cismontane woodland, and serpentinite or volcanic lower montane coniferous forest.	**Moderate**. Suitable habitat is present in the project area.
Layne's ragwort	*Packera layneae (formerly Senecio layneae)*	CNPS, CNDDB, USFWS	FT/SR/1B.2	April–August	656–3,281 ft (200–1,000 m)	Chaparral and rocky serpentinite or gabbroic cismontane woodland.	**High**. Species was previously documented in the project area (CDFW, 2014).
legenere	*Legenere limosa*	CNPS, CNDDB	–/–/1B.1	April–June	3–2,887 ft (1–880 m)	Vernal pools.	**Moderate**. Suitable habitat is present in the project area.
Nissenan manzanita	*Arctostaphylos nissenana*	CNPS, CNDDB	–/–/1B.2	February–March	1,476– 3,609 ft (450–1,100 m)	Closed-cone coniferous forest and rocky chaparral.	**Moderate**. Suitable habitat is present in the project area.
oval-leaved viburnum	*Viburnum ellipticum*	CNPS, CNDDB	–/–/2.3	May–June	705–4,593 ft (215–1,400 m)	Chaparral, cismontane woodland, and lower montane coniferous forest	**Moderate**. Suitable habitat is present in the project area.
Parry's horkelia	*Horkelia parryi*	CNPS, CNDDB	–/–/1B.2	April–September	263–3,396 ft (80–1,035 m)	Chaparral and Ione formation and other soils in cismontane woodland.	Unlikely. Ione soils are not present in the project area.
pincushion navarretia	*Navarretia myersii ssp. myersii*	CNPS, CNDDB	–/–/1B.1	April–May	66–1,083 ft (20–330 m)	Often acidic vernal pools.	**Moderate**. Suitable habitat is present in the project area.
Pine Hill ceanothus	*Ceanothus roderickii*	CNPS, CNDDB, USFWS	FE/SR/1B.2	April–June	804–2,067 ft (245–630 m)	Chaparral and gabbroic or serpentinite cismontane woodland	**High**. Previously documented in the project area (CDFW, 2014).
Pine Hill flannelbush	*Fremontodendron decumbens*	CNPS, CNDDB, USFWS	FE/SR/1B.2	April–July	1,394–2,493 ft (425–760 m)	Chaparral, and rocky gabbroic or serpentinite cismontane woodland.	**Moderate**. Suitable habitat is present in the project area.
Red Bluff dwarf rush	*Juncus leiospermus var. leiospermus*	CNPS, CNDDB	–/–/1B.1	March–May	115–3,347 ft (35–1,020 m)	Chaparral, valley and foothill grassland, cismontane woodlands, and vernal pools.	**Moderate**. Suitable habitat is present in the project area.

TABLE 3.4.1b (Continued)
POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR IN THE PROJECT AREA

Common Name	Scientific Name	Query Sources[b]	Status[a] Federal/State/ CRPR	Blooming Period	Elevation Range ft (m)	Suitable Habitat Type	Likelihood of Occurrence in Project Area
Red Hills soaproot	*Chlorogalum grandiflorum*	CNPS, CNDDB	BLM/–/1B.2/	May–June	804–4,068 ft (245–1,240 m)	Chaparral, cismontane woodland, and serpentinite, gabbroic, and other soils in lower montane coniferous forest.	**High**. Species was previously documented in project area (CDFW, 2014).
Sacramento Orcutt grass	*Orcuttia viscida*	CNPS, CNDDB, USFWS	FE/SE/1B.1	April–July	98–328 ft (30–100 m)	Vernal pools.	**Moderate**. Suitable habitat is present in the project area.
Sanford's arrowhead	*Sagittaria sanfordii*	CNPS, CNDDB	–/–/1B.2	May–October	0–2,133 ft (0–650 m)	Assorted shallow freshwater marshes and swamps.	**Moderate**. Suitable habitat is present in the project area.
slender Orcutt grass	*Orcuttia tenuis*	CNPS, CNDDB, USFWS	FT/SE/1B.1	May–September (October)	115–5,774 ft (35–1,760 m)	Vernal pools.	**Moderate**. Suitable habitat is present in the project area.
Stebbins' morning-glory	*Calystegia stebbinsii*	CNPS, CNDDB, USFWS	FE/SE/1B.1	April–July	607–3,576 ft (185–1,090 m)	Openings in chaparral and gabbroic or serpentinite cismontane woodland.	**High**. Species was previously documented in the project area (CDFW, 2014).
stinkbells	*Fritillaria agrestis*	CNPS, CNDDB	–/–/4.2	March–June	33–5,102 ft (10–1,555 m)	Cismontane woodland, chaparral, and valley and foothill grassland.	**Moderate**. Suitable habitat is present in the project area.
streambank spring beauty	*Claytonia parviflora ssp. grandiflora*	CNPS	–/–/4.2	February–March	820–3,937 ft (250–1,200 m)	Rocky cismontane woodland.	Unlikely. Suitable streambanks and rocky cismontane woodland habitat are not present in the project area.
Tuolumne button-celery	*Eryngium pinnatisectum*	CNDDB	–/–/1B.2	May–August	230–3,002 ft (70–915 m)	Cismontane woodland, lower montane coniferous forest, and mesic vernal pools.	**Moderate**. Suitable habitat is present in the project area.

a Status:

Federal
BLM = Designated as sensitive by BLM
FE = Endangered under the ESA
FT = Threatened under the ESA

State
SE = Endangered under the CESA
SR = Rare under the NPPA
ST = Threatened under CESA

California Rare Plant Rank (CRPR)
1A = Plants presumed extinct in California
1B = Plants, rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California, but more common elsewhere
3 = Plants for which more information is need to determine status
4 = Plants of limited distribution – a watch list
0.1 = Seriously threatened in California
0.2 = Fairly threatened in California

Five special-status plant species were documented in the Project survey area during the 2012 and 2013 comprehensive botanical surveys: Stebbins' morning glory (*Calystegia stebbinsii*), Pine Hill ceanothus (*Ceanothus roderickii*), Red Hills soaproot (*Chlorogalum grandiflorum*), Layne's ragwort (*Packera layneae*), and El Dorado County mule's ears (*Wyethia reticulata*) (Stillwater Sciences, 2013a and 2013b). These species occur in chaparral habitat on gabbroic soils formed from weathered gabbrodirite rocks (refer to Section 1.2 [pp.3] of Stillwater Sciences, 2013a), which is located within and adjacent to the BLM Pine Hill Preserve, in the eastern portion of the Project area. A summary of approximate plant populations/count, location, life history and habitat requirements, and field observations are listed in Table 2-2 (pp. 10) of Stillwater Sciences, 2013a and 2013b. One population of eight Northern California black walnut (*Juglans hindsii*) trees was also documented along the access road for the Clarksville substation. However, the survey area is not considered the native range of this species (Baldwin et al. 2012), and these trees were likely planted or escaped from cultivation. Therefore, this population is not considered to be a special-status population.

Stebbins' Morning-Glory

Stebbins' morning-glory is a perennial rhizomatous herb, listed as endangered under the FESA and CESA, and has a California Rare Plant Rank (CRPR) of 1B.1 (i.e., rare, threatened, or endangered in California and elsewhere; seriously endangered in California). The species is limited to El Dorado and Nevada counties (Baldwin et al., 2012), from approximately 607 to 3,576 feet elevation, but is locally abundant in suitable habitat. Stebbins' morning-glory typically occurs on serpentinite or gabbroic soils, in openings in chaparral and cismontane woodland (CNPS, 2014). The species is shade intolerant and is threatened by development, off-road vehicles, road maintenance, and alteration of the natural fire regimes (USFWS, 2002). Focused plant surveys in 2012 documented approximately 3,000 individuals of Stebbins' morning-glory in the plant survey area (Stillwater Sciences, 2013a).

Pine Hill Ceanothus

Pine Hill ceanothus is a perennial evergreen shrub listed as endangered under the FESA, rare under NPPA, and has a CRPR of 1B.2 (i.e., rare, threatened, or endangered in California and elsewhere; fairly endangered in California). The species is limited to western El Dorado County (Baldwin et al. 2012), from approximately 804 to 2,067 feet elevation, but it is locally abundant in suitable habitat. Pine Hill ceanothus typically occurs on serpentinite or gabbroic soils, in open areas in chaparral and cismontane woodland (CNPS, 2014). The species is shade intolerant and is threatened by residential development and alteration of fire regimes. After a fire, Pine Hill ceanothus sprouts and proliferates before the formation of overgrowth from whiteleaf manzanita and chamise (USFWS, 2002). Focused surveys conducted by Stillwater Sciences in 2012 documented approximately 5,000 individuals of Pine Hill ceanothus in the plant survey area (Stillwater Sciences, 2013a).

Red Hills Soaproot

Red Hills soaproot is a perennial bulbiferous herb that is designated as Sensitive by BLM and has a CRPR of 1B.2. The species is limited to Placer, El Dorado, and Tuolumne counties (Baldwin et al., 2012), from approximately 804 to 4,068 feet elevation, but it is locally abundant in suitable habitat. Red Hills soaproot typically occurs on serpentinite, gabbroic, or other soils in open areas

in chaparral, cismontane woodland, and lower montane coniferous forest (CNPS, 2014). The species is threatened by development, mining, and vehicles. During the 2012 survey season, Stillwater Sciences documented approximately 11,000 individuals of red hills soaproot in the plant survey area (Stillwater Sciences, 2013a).

Layne's Ragwort

Layne's ragwort is a perennial herb that is listed as threatened under the FESA, rare under the NPPA, and has as a CRPR of 1B.2. The species is limited to Butte, El Dorado, Placer, Tuolumne, and Yuba counties, from approximately 656 to 3,281 feet elevation, but it is locally abundant in suitable habitat. Layne's ragwort generally occurs in temporary openings on rocky, serpentinite or gabbroic soils, in open areas in chaparral and cismontane woodland (CNPS, 2014). The species is shade intolerant and is eliminated as vegetation grows around it (USFWS 2002). The species is threatened by urbanization, grazing, road construction, vehicles, and fire suppression. Focused surveys in 2012 documented approximately 2,000 individuals of Layne's ragwort in the plant survey area (Stillwater Sciences, 2013a).

El Dorado County Mule Ears

El Dorado County mule ears is a perennial herb that is designated as Sensitive by BLM and has a CRPR of 1B.2. The species is limited to El Dorado and Yuba counties, from approximately 607 to 2,067 feet elevation, but it is locally abundant in suitable habitat. El Dorado County mule ears typically occurs on clay or gabbroic soils, in open areas in chaparral, cismontane woodland, and lower montane coniferous forest (CNPS, 2014). The species is threatened by development and vehicles (BLM, 2008). Stillwater Sciences documented approximately 10,000 individuals of El Dorado County mule ears in the plant survey area during the 2012 focused botanical surveys (Stillwater Sciences, 2013a).

Jurisdictional Wetlands and Waters

A wetland delineation was conducted in spring 2012 (April 9–13, April 26–27, May 31, and June 12) in accordance with the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008). The results of this survey were documented in the *Delineation of Waters and Wetlands for the Missouri Flat-Gold Hill 115 kV Reconductoring Project* (Stillwater Sciences, 2013c). The report describes the existing conditions for wetlands under federal and state jurisdiction for the Project, including a description of land use and vegetation, hydrology, soils, and climate. A total of 24.6 acres of waters of the U.S., including wetlands, and waters of the State occur in the Project area. These waters and wetlands are summarized below in **Table 3.4-1c** and Figures 3.4-1h through 3.4-1n (Stillwater Sciences, 2013c).

Of the 24.6-acre total, approximately 9.1 acres of other waters and tributaries of the U.S. occur in the Project area; these include perennial and seasonal channels and freshwater ponds that exhibit an ordinary high water mark (OHWM) and drain directly or eventually into traditional navigable water.

TABLE 3.4-1c
WETLANDS AND WATERS OF THE U.S. IN THE PROJECT AREA

Description	Area (Acres)	Area (hectares)
Other Waters and Tributaries	9.1	3.7
Perennial	2.5	1.0
Seasonal	6.6	2.7
Wetlands	15.5	6.2
Perennial	3.6	1.4
Seasonal	10.2	4.1
Constructed/Stormwater Basin	1.7	0.7
Total	**24.6**	**9.9**

SOURCE: Stillwater Sciences, 2013c.

Of the total, 15.5 acres of wetlands in the Project area include perennial, seasonal, and constructed wetlands or stormwater basins. Most of the wetlands in the Project area have been manipulated due to intensive residential and commercial development over the past decade. A total of 3.6 acres of the wetlands in the Project area support water year-round; however, the majority of wetland features (10.2 acres) are seasonal in nature and remain dry for most of the year. Four wetlands (1.7 acres) in the Project area are artificial features that serve as stormwater and runoff detention basins. Constructed wetlands/stormwater basins in the Project area appear to support perennially wet conditions and wetland vegetation. The location of potentially jurisdictional waters and habitat characteristics of various types of wetlands are described above, in the Vegetation Communities section as well as in Stillwater Sciences (2013c). Refer to Figures 3.4-1h through 3.4-1n for the locations of potentially jurisdictional features.

3.4.2 Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) (7 U.S. Code [USC] Section 136, 16 USC Sections 1531 et seq.) protects fish and wildlife that are listed as endangered or threatened by the USFWS or the National Marine Fisheries Service (collectively referred to as the Services). The FESA prohibits unauthorized "take" of endangered and threatened species, with take defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Harm has been defined to include significant habitat modification or degradation. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging-up, damaging, or destroying any listed plant on non-federal land in knowing violation of the law. Effects on critical habitat are considered by the Services when determining the degree to which a proposed action may adversely affect listed species.

Under Section 7 of the FESA, federal agencies are required to consult with the Services if their actions, including permit approvals or funding, may adversely affect a threatened or endangered species, including plants, or its critical habitat. Through consultation and the issuance of a Biological Opinion, the Services may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action will not jeopardize the continued existence of the species.

Under Section 10 of the FESA, an incidental take permit may be issued to a non-federal entity if take is incidental to an otherwise lawful activity, the incidental take permit application meets all issuance criteria, and a Habitat Conservation Plan is developed for the activity.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC Sections 703–711) protects all migratory birds, including active nests and eggs, and prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others. Enforcement of the provisions of the MBTA is the joint responsibility of USFWS and CDFW.

U.S. Bureau of Land Management, Sensitive Species

The U.S. Bureau of Land Management (BLM) has a policy to conserve special-status species and their habitats. The policy ensures that actions authorized, funded, or carried out by BLM do not contribute to the need to list any sensitive species as threatened or endangered under the FESA. BLM Sensitive species include those listed as endangered or threatened, or are candidates for listing under the FESA, and species designated by the BLM State Director as deserving special management consideration. In California, BLM Sensitive plant species include those listed as endangered or threatened under the California Endangered Species Act, those listed as rare under the Native Plant Protection Act, vascular and non-vascular plants with a California Rare Plant Rank of 1B (if not already listed as endangered, threatened, or rare), or other plants that the State Director believes meet the definition of sensitive.

U.S. Bureau of Land Management, Pine Hill Preserve Management Plan

An approximately 0.4-mile-long section of the Project alignment traverses the BLM Pine Hill Preserve in the community of Shingle Springs. The preserve was established in April 2001 to protect habitat for eight special-status plant species that grow on gabbro soils in western El Dorado County. The *Pine Hill Preserve Management Plan* (BLM, 2008) serves as a guide for management activities at the preserve and adjacent public and privately owned lands within the gabbro soil formation. The Plan also serves as the basis for consultations with State and federal wildlife agencies to evaluate impacts of management on the special-status plants. The plan describes physical and biological conditions in the preserve, identifies management challenges, outlines management activities, and proposes a strategy for conserving the special-status plants.

Clean Water Act of 1972

The U.S. Army Corps of Engineers (USACE) administers Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1251 et seq.), as amended (CWA). Section 404 regulates activities in wetlands and "other waters of the United States." Wetlands are a subset of "waters of the United States" that are defined in the Code of Federal Regulations as waters used for interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; interstate waters including wetlands; all other waters—such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds—which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and adjacent wetlands.

State

California Environmental Quality Act

The California Environmental Quality Act is the regulatory framework by which California public agencies identify and mitigate significant environmental impacts. In addition to threatened and endangered species, a species not listed under the federal or state endangered species act may be considered rare if the species exists in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens. A species also may be considered rare if it is likely to become "threatened" as that term is used in the Federal Endangered Species Act (CEQA Guidelines § 15380).

California Endangered Species Act

CESA (Fish and Game Code 2050 et seq.) generally parallels the main provisions of FESA. CDFW administers the listing of endangered and threatened species under CESA through Title 14, CCR Sections 670.2 and 670.5, and regulates these species under Fish and Game Code 2050 et seq. CDFW may allow take of such species through its issuance of permits pursuant to Fish and Game Code Section 2081, except for designated "Fully Protected" and certain other species. Unlike its federal counterpart, CESA adopts a narrower definition of "take," and CESA's protections apply to candidate species that have been petitioned for listing. Under CESA, "take" is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". State lead agencies are required to consult with CDFW to ensure that any action undertaken would not jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Native Plants Protection Act

This Act is intended to preserve, protect, and enhance endangered or rare native plants in California. Vascular plants identified as rare or endangered by the CDFW and the California Native Plant Society (CNPS), but which may have no designated status or protection under federal or state endangered species legislation, are defined according to a California Rare Plant Rank as follows:

- **Rank 1A:** Plants presumed extinct
- **Rank 1B:** Plants rare, threatened, or endangered in California and elsewhere

- **Rank 2:** Plants rare, threatened, or endangered in California, but more numerous elsewhere
- **Rank 3:** Plants about which more information is needed (a review list)
- **Rank 4:** Plants of limited distribution (a watch list)

Consistent with CEQA Guidelines § 15380, plants designated with a CRPR of 1A, 1B, or 2 are considered to meet the criteria of endangered, rare, or threatened, and so are analyzed as "special-status species" in this document. Also pursuant to CEQA Guidelines § 15380, CRPR 3 and 4 species and species deemed Locally Unusual and Significant (LU&S) may be analyzed under CEQA if there is sufficient information to assess potential impacts.

California Fish and Game Code Section 1913 (Native Plant Protection Act) provides a utility company exemption from certain applications of the CESA (specifically from the requirement to obtain a "take" permit) when only CESA-listed plants, and not habitat for CESA-listed wildlife species, would be affected by a project. Section 1319(b) states that "…the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way by the owner of the land or his agent, or the performance by a public agency or a publicly or privately owned utility of its obligation to provide service to the public, shall not be restricted…because of the presence of rare or endangered plants, except as provided in subdivision (c)." Subdivision (c) requires the utility to provide CDFW ten days' notice to salvage affected plants prior to construction. The Applicant would apply this exemption to avoid obtaining a CESA "take" permit for the Project's impacts on Stebbin's morning glory.

Protection of Birds and Birds' Nests

Under California Fish and Game Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided. Section 3503.5 makes it unlawful to take, possess or destroy birds of prey in the orders Falconiformes (e.g., bald eagle, golden eagle, Swainson's hawk, American kestrel, peregrine falcon, prairie falcon) and Strigiformes (e.g., burrowing owl, short-eared owl), or to take, possess or destroy the nests or eggs of these birds. Disturbance that causes nest abandonment and/or reproductive failure is prohibited under the Fish and Game Code. This statute does not provide for the issuance of an incidental take permit. Under California Fish and Game Code Section 3513, it is unlawful to take or possess any migratory non-game bird except as provided by rules and regulations adopted under the federal Migratory Bird Treaty Act.

Species of Special Concern

Species of Special Concern is a category conferred by CDFW on animal species that meet the state definition of threatened or endangered, but have not been formally listed (e.g., federally or state-listed species), or are considered at risk of qualifying for threatened or endangered status in the future based on known threats. The designation is considered an administrative classification only, but CEQA lead agencies frequently consider these "special-status" for the purposes of their analyses. Furthermore, any species that can be shown to meet the definition of "rare" or "endangered" under § 15380 of the CEQA Guidelines is included in the Project impacts analysis.

Fully Protected Species

California Fish and Game Code Sections 3511, 4700, 5050, and 5515 apply "fully protected" status to 37 birds, mammals, reptiles, amphibians, and fish. CDFW may authorize incidental "take" of Fully Protected species if the species is covered under an approved Natural Community Conservation Plan (NCCP). (Fish and Game Code Section 2835).

California Special-status Natural Communities

CDFW maintains a list of vegetation communities that are of limited distribution, either statewide or in a county or region. Communities of special concern are assigned a state rank, based on their degree of imperilment (as measured by rarity, threats, and ecological trends). These communities do not necessarily contain special-status species or their habitat. Most wetlands and riparian plant communities are considered special-status natural communities.

California Fish and Game Code Wetlands Regulations

CDFW regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks, and supports wildlife, fish, or other aquatic life. These activities are regulated under California Fish and Game Code Section 1600 et seq. Requirements to protect the integrity of biological resources and water quality are often conditions of Streambed Alteration Agreements.

State and Regional Water Quality Control Boards

Responsibility for the protection of state waters resides with the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs), including the Lahontan Region RWQCB. Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code section 13050(e)). All waters of the United States that are within the borders of California also are "waters of the state." The Federal government, through the USACE, may have concurrent jurisdiction over such waters, but California still retains authority to regulate discharges. Any person discharging, or proposing to discharge, waste within any region that could affect "waters of the state" first must file a report of waste discharge with the appropriate RWQCB (Water Code section 13260).

Local

County of El Dorado General Plan

The of *El Dorado County General Plan* (2004) and its Conservation and Open Space Element address the management, preservation, and conservation of natural resources and open space of El Dorado County. The Plan's goals, objectives, and policies are implemented to conserve and improve the County's existing natural resources and open space. The following General Plan goals are relevant to biological resources in the Project area:

- Identify, protect, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value, with associated policies to protect rare, threatened, and endangered species, their habitats.

- Protect and maintain native trees including oaks, heritage, and landmark trees. This goal has associated policies for the county's Oak Tree Removal Permit Process, which is not applicable to the Project.

- Identify and protect, where feasible, critical fish and wildlife habitat including: deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

- Coordinate with wildlife and vegetation protection programs of appropriate federal and California agencies.

- Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

City of Folsom General Plan

The *City of Folsom General Plan (1988) Open Space and Conservation* Element identifies the community's resources and establishes policy for their conservation, preservation, development, maintenance and/or use. General Plan goals relevant to biological resources in the Project area include:

- Preserve existing heritage trees, with related policies for a Tree Preservation/Landscape Ordinance and replacement of removed heritage trees.

- Wherever feasible, preserve, acquire, rehabilitate, enhance, and maintain sensitive vegetation, wetland, and aquatic resources, including a vegetation preservation ordinance.

City of Folsom Plan Area Specific Plan

The *City of Folsom Plan Area Specific Plan* (City of Folsom, adopted in 2011) expanded the city's boundaries south of U.S. Highway 50 (U.S. 50). The Specific Plan's Resource Management and Sustainable Design section includes the following objectives related to biological resources that are relevant to the Project:

- Protect delineated wetlands, and implement a wetland mitigation and monitoring program where delineated wetlands cannot be preserved.

- Promote the preservation of habitat areas that contain special-status species, and implement mitigation measures for impacts on special-status species.

- Preserve existing oak woodlands and isolated oak trees wherever practical. This objective includes a number of policies related to oak tree removal mitigation.

El Dorado County Integrated Natural Resources Management Plan – Phase I

The *El Dorado County Integrated Natural Resources Management Plan (INRMP)*, a local strategy to conserve and restore habitat connectivity, is under development by El Dorado County (El Dorado County, 2014) and currently is in the first phase of planning studies. The El Dorado County INRMP is intended to offset the effects of habitat loss from land development in western El Dorado County. Project activities would occur in El Dorado County within the boundary of the INRMP.

3.4.3 Applicant Proposed Measures

Applicant Proposed Measures (APMs) are summarized in Section 2.9 (Table 2-7) of this IS/MND. The following APMs would be implemented to avoid or reduce potential impacts to biological resources in the Project area:

APM BIO-1: General Biological Resources Measures

APM BIO-1.1: Worker Environmental Awareness Training Program. A qualified biologist will develop an environmental awareness training program that is specific for the project. All on-site construction personnel will attend the training before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the FESA and CESA, special-status species as defined in the Regulatory Setting (Section 3.4.2) and the Special-Status Species section, and the consequences of noncompliance with these acts. Under this program, workers will be informed about the presence, life history, and habitat requirements of all special-status species that may be affected in the project area. Training also will include information on State and federal laws protecting nesting birds, wetlands, and other water resources.

An educational brochure will be produced for construction crews working on the project. The brochure will include color photos of sensitive species as well as a discussion of relevant APMs.

APM BIO-1.2: Identification and Marking of Sensitive Resource Areas

Sensitive resource areas identified during pre-construction surveys in the project area will be clearly marked in the field or on project maps. Sensitive resource areas will include active bird nests within specified buffer zones (see APM BIO-3), special-status plants adjacent to work sites, special-status vegetation types adjacent to work sites, and vernal pool and wetland boundaries in and adjacent to work sites. Such areas will be avoided during construction to the extent practicable.

APM BIO-1.3: Construction Monitoring

A qualified biologist will monitor construction activities in sensitive habitats previously identified by a qualified biologist. The monitor will ensure implementation of and compliance with all avoidance and mitigation measures. The monitor will have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.

If a listed wildlife species is encountered during construction, project activities will cease in the area where the animal is found until the biologist determines the animal has moved out of harm's way, or with prior authorization from the USFWS and/or CDFW if necessary, relocates the animal out of harm's way, and/or takes other appropriate steps to protect the animal. Work may resume once the biologist has determined that construction activities will not harm any listed wildlife species. If recommended by the biologist, a temporary silt-fence barrier will be installed to prevent wildlife species from entering the work area(s) during project activities. The biological monitor will be responsible for any necessary reporting to USFWS and/or CDFW of any capture and relocation, or inadvertent harm, entrapment or death of a listed species.

APM BIO-1.4: Tree Removal and Mitigation

Trees being felled in the vicinity of a sensitive resource area exclusion zone will be directionally felled away from the zone, where possible. Trees and other vegetation that are removed from the project area will be removed using equipment and access routes that avoid sensitive resource areas.

Oak tree removal will be minimized to what is required to implement the project. Oak trees greater than 6 inches diameter at breast height (dbh), or having multiple trunks with an aggregate over 10 inches dbh, that are removed will be documented and replaced based on a 1:1 ratio or other measure derived through coordination with El Dorado County that provides an equal level of compensation.

APM BIO-2: Special-Status Species Pre-construction Surveys

Before project construction begins, a qualified biologist will perform a pre-construction survey for work areas within 100 feet of suitable habitat for special-status species. If any special-status species are found nearby but outside the proposed work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier will be installed to prevent special-status species from entering the work area(s) during project activities. If a special-status species is found in a work area prior to construction, the biologist will relocate the species out of harm's way (if prior authorization from USFWS and CDFW is not required for the species), or with prior authorization from USFWS and/or CDFW if necessary, and/or take other appropriate steps to protect the animal.

APM BIO-3: Special-Status Bird Measures

Before Project activities in proximity to nesting birds begins, PG&E will obtain the applicable permit or follow relevant protocol that is authorized by Section 3503 and/or Section 3503.5 of the California Fish and Game Code, or by any regulation adopted pursuant thereto, pertaining to nesting birds. If no such permit or protocol is available under the above authorities before Project construction begins, PG&E will comply with the following measure:

APM BIO-3.1: Pre-construction Survey and Avoidance of Active Nests. For any tree trimming or other potential nest-disturbing activities to be conducted between February 1 and August 31, a qualified biologist will conduct a pre-construction survey for nesting birds. The survey will be conducted no more than one week prior to the start of work activities and will cover all affected areas where substantial ground disturbance or vegetation clearing is required. If any active nests containing eggs or young are found, an appropriate nest exclusion zone will be established by the biologist. The standard buffers included in PG&E's Avian Conservation Strategy (e.g., 50 to 400 feet from non-special-status bird nests, 75 to 350 feet from non-raptor special-status bird nests, and 300 to 1,320 feet from raptor nests, depending on species) will serve as a guideline for exclusion zones, but may be modified on a site-specific basis as determined by the biologist. To the extent practicable, no project vehicles, chain saws, or heavy equipment will be operated in this exclusion zone until the biologist has determined that the nest is no longer active and or the young have fledged. If it is not practicable to avoid work in an exclusion zone around an active nest (e.g., a bird is sitting on eggs or bird activity is such that the nest could be interpreted as active, per USFWS [2003] *Migratory Bird Permit Memorandum*), work activities will be modified to minimize disturbance of nesting birds but may proceed in these zones at the discretion of the biologist. The biologist will monitor all work activities in these zones daily when construction is

occurring and assess their effect on the nesting birds. If the biologist determines that particular activities pose a high risk of disturbing an active nest, the biologist will recommend additional, feasible measures to minimize the risk of nest disturbance, potentially including temporary cessation of work activities near active nests.

APM BIO-4: Valley Elderberry Longhorn Beetle Habitat Avoidance and Mitigation

PG&E's Valley Elderberry Longhorn Beetle Conservation Program allows PG&E to perform routine operations and maintenance activities and new construction, subject to certain terms and conditions as specified in the USFWS Biological Opinion (File 1-1-01-F-0114). The Biological Opinion provides for thirty years of incidental take coverage and was initiated on June 27, 2003. It defines reasonable and prudent measures required to avoid and minimize impacts to habitat for the federally listed valley elderberry longhorn beetle (VELB). PG&E will implement the surveying, avoidance, and any necessary compensation measures required for the Conservation Program as authorized by USFWS. These measures may include, for example: (1) surveying for and flagging all elderberry plants with one or more stems measuring 1 inch or more in diameter at ground level that are within 20 feet of work sites; (2) avoiding all such elderberry plants to the extent feasible; and (3) reporting unavoidable impacts to elderberry shrubs to USFWS for coverage under the Conservation Program's funding of VELB habitat acquisition, development, and protection.

APM BIO-5: Special-Status Plant Avoidance and Impact Minimization Measures

In addition to APM BIO-1 and APM BIO-2, the following measures will be implemented in gabbroic chaparral habitat in and immediately east of the BLM Pine Hill Preserve, and south of U.S. 50, where the highway borders the BLM Pine Hill Preserve, to avoid and minimize impacts on special-status plants.

APM BIO-5.1: Seasonal Timing Restrictions. If a special-status annual plant species is present, any work that may impact the plant will occur after plant senescence and prior to the first significant rain, to the extent practicable.

APM BIO-5.2: Noxious Weed Assessment and Control Plan. Prior to the commencement of construction activities in the BLM Pine Hill Preserve, a Noxious Weed Assessment and Control Plan will be developed and implemented for work in the BLM Pine Hill Preserve. The plan will assess the areas at risk for noxious weed introduction and/or spread and will identify measures for equipment and vehicle inspection.

APM BIO-5.3: Plant Salvage Requirements. Prior to the commencement of construction activities in the BLM Pine Hill Preserve or other areas within the Project footprint known to support rare plant populations, PG&E will refine its Rare Plant Strategy that specifies salvage and propagation methods for listed plants, as well as pre- and post-Project monitoring methods. The Rare Plant Strategy will be submitted to USFWS for review and approval as may be required in the biological opinion from USFWS. At a minimum, the Strategy will include information such as: methods of collection of reproductive structures from affected plants, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria (e.g., documented germination of collected seed within an equal or larger area than affected by the project), and monitoring programs (e.g., 3 to 5 years), as well as measures to ensure long-term site sustainability, as required by USFWS during the Section 7 consultation process. Prior to construction, the location of special-status plants that will be affected by grading and excavation will be surveyed and documented, and the seeds and/or rhizomes of

special-status plants that may be destroyed during construction will be collected in accordance with the Rare Plant Strategy. Following construction, which plants were permanently or temporarily impacted by the project will be determined. Collected seeds and/or rhizomes will be planted per planting guidelines described in the Rare Plant Strategy in coordination with BLM and USFWS. Post-project monitoring methods will be applied in accordance with the Rare Plant Strategy to determine if propagation activities met the success criteria described in the Rare Plant Strategy.

APM BIO-5.4: Topsoil Stockpiling Requirements. Where grading or excavation is required in gabbroic chaparral habitat, and where noxious weeds are absent, the upper 4 inches of topsoil will be stockpiled separately during grading or excavations, following any necessary plant salvage efforts. When this topsoil is replaced, compaction will be minimized to the extent consistent with utility standards.

APM BIO-5.5: Locking Gate Installation. Following project completion, and upon agreement of private landowners, locking gates will be installed at the two main roads leading into the BLM Pine Hill Preserve to limit unauthorized vehicle access that may threaten special-status plant populations.

APM BIO-6: Special-Status Plant Impact Mitigation

To compensate for permanent impacts on special-status plants, PG&E will explore options with USFWS, and will implement the preferred option. The options may include: on-site planting of propagated seeds and cuttings in accordance with the USFWS-approved Rare Plant Strategy; and/or providing funding to the BLM Pine Hill Preserve for the purpose of habitat enhancement, management, and/or monitoring of gabbroic chaparral habitat.

APM BIO-7: Seasonal Wetland Protection

Seasonal wetlands that may provide habitat for special-status species will not be entered. Travel across seasonal wetlands that do not provide such habitat will be limited to the greatest extent feasible. Where travel across seasonal wetlands is necessary, it will occur during dry conditions to avoid soil compaction and mixing. If travel is required during wet conditions, matting and other protection measures will be implemented to avoid soil compaction or mixing. Matting and other protection measures will be approved by the biological monitor before work at that location begins. During construction monitoring, the biological monitor may temporarily stop construction work if matting and protection measures are inadequately applied; construction work may resume after matting and other protection measures are installed effectively to protect seasonal wetlands.

3.4.4 Environmental Impacts and Mitigation Measures

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

Special-Status Wildlife

As described above, fourteen federal- and/or state-listed wildlife species have moderate to high potential to occur in the Project area: western pond turtle, coast horned lizard, vernal pool fairy

shrimp, vernal pool tadpole shrimp, Valley elderberry longhorn beetle, western spadefoot, white-tailed kite, western burrowing owl, Cooper's hawk, tricolored blackbird, pallid bat, and American badger. Western pond turtle has been documented in the Project area during biological surveys; coast horned lizard is known to occur on the BLM Pine Hill Preserve; and habitat features in the Project area such as elderberry shrubs, vernal pools and other wetlands, annual grassland habitat, bridges, and tall trees provide suitable nesting/denning and foraging habitat for other species listed in this section.

Vernal pool fairy shrimp and vernal pool tadpole shrimp have moderate potential to occur in the seasonal wetlands located along the western third of the Project area (from approximately Empire Ranch Road to Gold Hill Substation). Any construction activity that would directly or indirectly degrade these aquatic features could adversely affect these species. Potential direct and indirect impacts include direct "take" of special-status invertebrate species, soil compaction, vegetation trampling, introduction of invasive species, and water quality degradation. The Project has been designed to fully avoid features that may provide habitat for these species and travel across seasonal wetlands will be limited to the greatest extent feasible. The Project proposes to access an existing wood pole along the Gold Hill No. 1 Line north of U.S. 50 between Bass Lake Road and Tierra De Dios Drive by traversing one seasonal wetland (approximately 50 feet); this location is not known to support special-status invertebrates. Where necessary, travel across seasonal wetlands will occur during the dry season across features that are not known to support special-status invertebrates and are determined to be unlikely to support special-status invertebrates based on a site-by-site assessment of each area by a qualified biologist. This would reduce the potential for "take" of special-status invertebrate species. Furthermore, APM BIO-1 (General Biological Resources Measures), APM BIO-7 (Seasonal Wetland Protection), APM HYDRO-1 (Stormwater Pollution Prevention Plan), and APM HYDRO-2 (Water Feature Protection Requirements [refer to *Section 3.9, Hydrology and Water Quality* in this IS/MND]), and additional mitigation measures described below would avoid and minimize direct and indirect impacts on aquatic habitats supporting special-status invertebrates in the Project area. In addition to APM BIO-1, APM BIO-7, APM HYDRO-1, AND APM HYDRO-2, **Mitigation Measure 3.4-1** has been identified to avoid and minimize Project impacts on special-status vernal pool invertebrates. Following the implementation of these APMs and Mitigation Measure 3.4-1, Project impacts to vernal pool invertebrates would be reduced to a less-than-significant level.

Valley elderberry longhorn beetle has moderate potential to occur on elderberry plants with one or more stems 1 inch or greater in diameter in the Project area. Any Project activity that would require significant trimming or removal of such elderberry shrubs could adversely affect valley elderberry longhorn beetle. The Project would completely avoid most elderberry shrubs mapped in the Project area. Three elderberry shrubs meeting the stem size criteria for valley elderberry longhorn beetle habitat may be within 20 feet of construction activities (shrub numbers 11–13 in the Biological Resources Technical Report [Stillwater Sciences 2013a]). Per APM BIO-1 (General Biological Resources Measures), these shrubs would be marked and excluded from work sites prior to construction. Two elderberry shrubs meeting the stem size criteria for valley elderberry longhorn beetle habitat may need to be removed to implement the Project (shrub numbers 10 and 16 in the Biological Resources Technical Report [Stillwater Sciences 2013a]). As described in APM BIO-4 (Valley Elderberry Longhorn Beetle Habitat Avoidance and

Mitigation), in further compliance with USFWS' Biological Opinion (File 1-1-01-F-0114), PG&E would report the removal of these shrubs to USFWS and mitigate for impacts to elderberry shrubs in accordance with the Biological Opinion (for example, by avoiding elderberry plants with a 20-foot buffer, avoiding herbicide use within 20 feet of plants, and trimming plants rather than removing plants when feasible, except where authorized by the USFWS consistent with the Biological Opinion). Such compliance with the Biological Opinion would reduce any impact to a less-than-significant level.

Western pond turtle has high potential to occur in and around aquatic habitat throughout the Project area; this species has been observed during biological surveys conducted in 2012. The Project has been designed and work areas have been sited to avoid impacts to aquatic resources. No wetland vegetation would be removed and a very limited amount of riparian vegetation is proposed to be trimmed to provide construction equipment access. Furthermore, APM BIO-1 (General Biological Resources Measures) and APM BIO-2 (Special-Status Species Pre-construction Surveys) would avoid potential impacts to turtles that may travel into work sites. Therefore, no direct impacts are expected. APM HYDRO-1 (Stormwater Pollution Prevention Plan) would be implemented to prevent indirect impacts on western pond turtle habitat (e.g., impairment of waterbodies from sediment or inadvertent release of hazardous materials) (refer to *Section 3.9, Hydrology and Water Quality* in this IS/MND). Following implementation of APM BIO-1, APM BIO-2, and APM HYDRO-1, potential Project impacts on western pond turtle would be less than significant.

Coast horned lizard has moderate potential to occur in gabbroic chaparral habitat in the Project area. Coast horned lizards could be injured or killed by Project vehicles or construction equipment, and their habitat could be disturbed during vegetation management or damaged during Project construction. APM BIO-1 (General Biological Resources Measures) and APM BIO-2 (Special-Status Species Pre-construction Surveys) would be implemented so that no direct impact occurs on coast horned lizard. Less than 1 acre of gabbroic chaparral habitat, which represents less than 2 percent of this vegetation type in the Project area, would be removed to accommodate construction activities. Following implementation of APM BIO-1 and APM BIO-2, impacts on coast horned lizard habitat would be less than significant.

Raptors and/or migratory birds such as **Cooper's hawk**, and special-status species such as **white-tailed kite** and **tricolored blackbird**, have moderate potential to nest in or near the Project area. Nesting birds may be adversely affected if construction activities occur near active nests during the breeding season. Direct impacts may include the destruction or removal of active nests during vegetation removal or trimming activities to provide construction equipment access. Indirect impacts may include nest abandonment or premature fledging resulting from construction-related noise and vibration (e.g., from heavy equipment, helicopters, vehicles, generators, and human presence). Over 75 percent of the Project area contains urban or annual grassland habitat, which provide limited suitable nesting habitat for special-status and other migratory birds. In addition, little to no vegetation would be removed in these habitat types and no freshwater emergent wetland or vernal pool vegetation would be removed in the Project area. Vegetation removal in oak, chaparral, and riparian vegetation types would be limited to the amount needed to provide access for construction equipment. As described in Section 2.7.1.7, the Project would conduct

vegetation trimming and tree or shrub removal of up to 8 acres of land, including the removal of approximately 225 trees along proposed access roads and temporary work areas in order to accommodate construction vehicles and equipment. Approximately 60 percent of trees that may be removed are native species, and a majority of these are oak trees. The indirect impact from construction-related noise and vibration would be temporary and would occur only during construction.

In addition to APM BIO-1 (General Biological Resources Measures), APM BIO-2 (Special-Status Species Pre-construction Surveys), and APM BIO-3 (Special-status Bird Measures), **Mitigation Measure 3.4-2** has been identified to further reduce impacts on nesting birds. Following implementation of these APMs and Mitigation Measure 3.4-2, Project impacts to Cooper's hawk, white-tailed kite, tricolored blackbird, and other raptors and/or migratory birds would be reduced to a less-than-significant level.

Pallid bat has moderate potential to roost on bridges that occur in the Project area, the Project would not result in disturbance in close proximity to these bridges. The bridges themselves may be traversed by Project-related vehicles or equipment, but such crossings are not anticipated to disturb any roosting pallid bats. Project construction activities in the vicinity of suitable roosting habitat at bridges would result in noise and vibration levels equivalent to the existing ambient noise and vibration from traffic. Therefore, no impact would occur.

Additional mitigation to reduce and minimize impacts on special-status wildlife species and their habitats:

Mitigation Measure 3.4-1: In areas where construction vehicles require crossing over seasonal wetlands and vernal pools that have the potential to support vernal pool invertebrates (crustacean habitat), the following protective measures would be implemented to reduce the effects of surface disturbance and compaction:

a) No equipment or materials shall be stored in or adjacent to seasonal wetlands or vernal pools.

b) Prior to allowing any vehicles or heavy equipment to cross a seasonal wetland, the Project proponent or its contractor shall employ geotextile fabric, wooden mats, or similar protective materials to protect the ground surface in areas where vehicles would encroach upon vernal pool crustacean habitat. Such materials would distribute the weight of vehicles and equipment over a greater area and prevent significant disturbance of soil in these areas. The project proponent or its contractor shall ensure that adequate calculations have been conducted prior to implementation of this measure to ensure the wooden mats can adequately distribute the weight of vehicles and heavy equipment to prevent compaction.

c) Materials shall only remain in the wetland areas as long as necessary for the completion of work

Mitigation Measure 3.4-2: The following measure supplements APM BIO-3.1, (i.e. using the nest buffer areas described in APM Bio 3.1 as guidance). The PG&E biologist shall coordinate with CDFW to determine whether work, as modified to minimize disturbance of nesting birds may proceed in an exclusion zone around an active nest (if avoidance is not

practicable). If any nests that are fully formed and have the potential to support eggs are found, the biologist shall monitor the nest for potential nesting activities. Project activities are only allowed to commence after it is determined that the nest is not actively being used by nesting birds, unless approved in coordination with CDFW per previous sentence. The biologist will monitor all work occurring within exclusion zones daily when construction is occurring and assess their effect on the nesting birds. If the biologist determines that particular activities pose a high risk of disturbing an active nest, the biologist will recommend additional feasible measures to minimize the risk of nest disturbance, potentially including temporary cessation of work activities within exclusion zones near active nests.

Significance after Mitigation: Less than Significant.

Special-Status Plants

Five special-status plant species occur in gabbroic chaparral in the Project area, and the locations of individuals of these species have been recorded from recent focused surveys conducted in 2012 and 2013 within the Project area (Stillwater Sciences, 2013a; 2013b). Due to the abundance of individual special-status plants throughout the one-mile section of the Project area containing gabbroic chaparral habitat, relocating Project activities or siting work areas to avoid all special-status plants is not feasible. Most of these special-status plant occurrences would be completely avoided as they are located outside anticipated work areas. However, individuals of all five species occur in potential Project work areas and access routes and could be damaged or destroyed as a result of vegetation removal or trimming activities. Potential activities that may impact special-status plants include vehicle movement along access roads, equipment and vehicle staging in work areas and pull sites, and/or drilling and pouring of foundations for new TSPs. Special-status plants also could be indirectly affected by soil compaction and the spread of nonnative invasive species from Project vehicle and equipment travel and staging.

Most special-status plants in the Project area would be completely avoided with implementation of APM BIO-1 (General Biological Resources Measures), including measures to educate on-site construction personnel, identify sensitive plant populations, and monitor work that is conducted in the vicinity of a sensitive plant population. However, the Project would not be able to completely avoid 0.02 acre of a Stebbin's morning glory population located within the ROW. Approximately 0.02 acre of gabbroic chaparral habitat would be permanently impacted by new concrete TSP foundations, and approximately two acres would be temporarily impacted in work areas, pull sites, and along access routes. APM BIO-5 (Special-Status Plant Avoidance and Impact Minimization Measures) would be implemented and includes compensatory mitigation for unavoidable impacts on special-status plants in these areas and measures to maximize the success of re-establishment in the vicinity after construction. The Rare Plant Strategy included in APM BIO-5 would identify which plants are permanently or temporarily impacted by the Project. As described previously, all five of the special-status plant species are particularly adapted to fire and are not shade tolerant or prefer vegetation openings. Construction activities that remove overstory trees and shading shrubs and create open areas of bare soil may provide opportunity for germination or the spread of these species. As a result, special-status plants temporarily impacted in these areas may recover quickly after construction. APM BIO-6 (Special-Status Plant Impact Mitigation) would be implemented to compensate for unavoidable, permanent impacts on special-status plants.

In addition to APM BIO-5 and APM BIO-6, **Mitigation Measure 3.4-3** has been identified to minimize impacts to rare plants outside the BLM Pine Hill Preserve and **Mitigation Measure 3.4-4** has been identified to allow for salvage of special-status plants. Following implementation of these APMs and mitigation measures, Project impacts to special-status plants would be reduced to a less-than-significant level.

Additional mitigation to reduce and minimize impacts on special-status plants:

Mitigation Measure 3.4-3: In addition to the areas within the BLM Pine Hill Preserve, PG&E will apply the measures identified in APM BIO-5.3 to other areas within the project footprint known to support rare plant populations.

Mitigation Measure 3.4-4: In addition to the measures described in APM BIO-6, PG&E will provide notification to CDFW at least 10 days prior to affecting special-status plants to allow for the salvage of special-status plants (CDFG Section 10913(c)).

Significance after Mitigation: Less than Significant.

b) 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 California Department of Fish and Game or U.S. Fish and Wildlife Service: *LESS THAN SIGNIFICANT.*

Riparian habitat and three other natural communities that are identified as sensitive by CDFW (white leaf manzanita/Sonoma sage chaparral, Fremont's goldfields-Downingia vernal pools, and water blinks-annual checkerbloom vernal pools) occur in the Project area (Stillwater Sciences, 2013a).

Riparian habitat occurs in limited amounts in the Project area (approximately 7.6 acres). A minor amount of trimming of riparian habitat would be necessary to provide construction equipment access. No riparian trees are proposed for removal. Therefore, the impact would be less than significant. If tree trimming activities are determined by a CPUC monitor to result in potential decline of health or eventual tree mortality of an oak tree considered a "native oak" for purposes of the *El Dorado County General Plan* Policy 7.4.5.2, *Protect and maintain native trees including oaks and landmark heritage trees,* **Mitigation Measure 3.4-5d** would be implemented to reduce the impact to a less than significant level, as discussed below under criterion e).

The Project would avoid all wetlands that support Fremont's goldfields-Downingia vernal pools and water blinks-annual checkerbloom vernal pools (no Project activities are proposed within or adjacent to these pools). Therefore, no impact to these sensitive natural communities would occur.

White leaf manzanita/Sonoma sage chaparral is a component of gabbroic chaparral habitat and occurs in the BLM Pine Hill Preserve (Stillwater Sciences, 2013a). Due to the widespread distribution of this vegetation community in this portion of the Project area, relocating Project activities or siting work areas to avoid an impact is not feasible. Approximately 1.0 acre of white leaf Manzanita/Sonoma sage chaparral habitat may be affected by vegetation removal and trimming activities to provide access to Project work sites. The impact would be temporary in

nature and would account for less than 2 percent of this vegetation type in the Project area. APM BIO-1 (General Biological Resources Measures), APM BIO-5 (Special-Status Plant Avoidance and Impact Minimization Measures), and APM BIO-6 (Special-Status Plant Impact Mitigation) would be implemented to minimize potential impacts and compensate for direct impacts to special-status plants. Therefore, the impact would be less than significant.

Additional mitigation to reduce and minimize impacts on riparian habitat or other sensitive natural communities: None required.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

The Project has been designed to avoid impacts to the majority of waterways and wetlands. In addition, the Project would not remove, fill, or result in the hydrologic interruption to waterways or wetlands. Construction equipment and vehicles may need to cross several seasonal drainages to access Project work areas. In addition, to access an existing wood pole along the Gold Hill No. 1 Line north of U.S. 50 between Bass Lake Road and Tierra De Dios Drive, one seasonal wetland would be traversed for approximately 50 feet. The existing pole would be left in place for distribution purposes and the new pole would be installed east of the existing pole, outside of the limits of the seasonal wetland. Work activities in the seasonal wetland would be limited to approximately 50 feet of overland access and the temporary staging of construction vehicles at the pole base to make minor modifications to aboveground features; no ground-disturbing or fill would be required. With the application of APM BIO-7 (Seasonal Wetland Protection), APM HYDRO-1 Stormwater Pollution Prevention Plan, APM HYDRO-2 (Water Feature Protection Requirements), and Mitigation Measure 3.4-1, in addition to the limited scope and temporary nature of proposed activities in the vicinity of some seasonal drainages and one seasonal wetland, which is predominantly dry year-round, the Project would not result in adverse effects on these features.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites: *NO IMPACT.*

The western half of the Project area is highly developed and contains few opportunities for wildlife movement. As discussed previously, the *Final Wildlife Movement and Corridors Report* (Sierra Ecosystems Associates, 2010) identified several potential wildlife crossing locations under Highway 50 in or adjacent to the Project area; these locations include Dunwood Drive, Finders Way, Joerger Cutoff Road, Silva Valley Parkway, and Tong Road in the form of corrugated culvert pipe, concrete box culvert, and bridge under-crossing (Figure 3.4-1o). The eastern half of the Project area is less developed, with tracts of open grassland interspersed with oak woodland. The Project would include modifications to existing infrastructure, and Project activities would not include construction of any elements that would block wildlife movement. Therefore, the Project would not interfere substantially with the movement of any native resident wildlife species, nor impede the use of any wildlife nursery sites (see above for discussion of special-status wildlife species, nesting raptors, and migratory birds). The Project would not include any in-water construction or crossing of Deer Creek (the only perennial water channel in

the project that has low potential to support two anadromous fish species) and, therefore, would not interfere with the movement of migratory fish. No impact would occur.

Additional mitigation to reduce and minimize impacts on wildlife movement corridors: None required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance: *LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.*

The Project is regulated by the CPUC and per the California Public Utilities Commission General Order No. 131-D; it is exempted from local land use and zoning regulations and discretionary permitting. However, the CPUC considered local policies or ordinances when determining the potential significance of impacts resulting from implementation of the Project.

The Project's design and APMs are compatible with the goals for habitat and biological resources in the *El Dorado County General Plan (2004)*, *City of Folsom General Plan (1993)*, and *City of Folsom Plan Area Specific Plan (2011).*

El Dorado County General Plan Policy 7.4.5.2 identifies the County's policy to protect and maintain native trees, including oaks and landmark and heritage trees. Policy 7.4.5.2 requires an Oak Tree Removal Permit for the removal of oak trees at least 6-inches in diameter at breast height (dbh) or multiple trunks with an aggregate of at least 10-inches dbh.

The Project would remove up to approximately 225 trees, 125 of which have been identified as oak trees meeting El Dorado County's oak removal permit criteria, Policy 7.4.5.2. Of the 125 oak trees identified for removal, the exact number that are either greater than 6-inches dbh or with multiple trunks collectively 10-inches dbh or greater, has not been measured. Conservatively up to 125 oak trees meeting the El Dorado County permit criteria may be removed to provide construction equipment access to pole work areas and pull sites. This tree removal would conflict with Policy 7.4.5.2. Loss of any oak tree meeting the dbh criteria in Policy 7.4.5.2 would be a significant impact.

In addition to direct oak tree removal, construction-related activities such as the operation of construction vehicles and other heavy equipment on or in the root zone of oak trees would result in damage to retained trees and/or their roots. Depending on the extent of such damage, and the particular circumstances of each retained tree, damaged trees may decline in health and suffer mortality at a rate faster than normally expected; this would be a significant impact.

To reduce the magnitude of the Project on native oak trees, PG&E would implement APM BIO-1.4 (Tree Removal and Mitigation). While APM BIO-1.4 would replace removed oak trees that are subject to Policy 7.4.5.2 at 1:1 ratio or mitigate for the impact through other measures derived through coordination with El Dorado County that provide an equal level of compensation, the only way to mitigate impacts to native oaks would be through replacement of removed trees. In addition, APM BIO-1.4 does not include the development of a planting and monitoring plan to ensure successful survival of replaced oak trees. APM BIO-1.4 also lacks protection for retained oak trees from root damage or other physical damages from construction-related activities,

including grading, trenching, drilling, or soil compaction from parking of construction-related vehicles or staging of equipment and materials within the root zone. Therefore, even with implementation of APM BIO-1.4, impacts on native oak trees would be significant. Avoidance and minimization measures in **Mitigation Measure 3.4-5** would be applied during construction to reduce the magnitude of impacts to retained oak trees during construction to less than significant. **Mitigation Measure 3.4-6** would be applied during oak tree replanting to ensure successful survival of replanted oak trees.

Additional mitigation to reduce and minimize conflict with any local policies or ordinances:

Mitigation Measure 3.4-5: Retained oak trees over 6" diameter at breast height (dbh) or having multiple trunks with an aggregate over 10" dbh, or sensitive natural community trees, located adjacent to ground-disturbing construction activities that could damage tree roots, shall be protected through the implementation of the following protective measures:

a) A Tree Protection Zone (TPZ) shall be established between any such retained tree or group of trees and the ground-disturbing construction activities. The TPZ shall be 1.5 times the radius of the dripline (canopy edge). However, a smaller TPZ may be approved by the CPUC monitor in coordination with the qualified biologist and construction personnel if necessary due to topography or other reasons, if the CPUC monitor concludes that the smaller TPZ is adequate to protect the tree(s) from significant impacts.

b) The TPZ of any protected trees shall be marked with high visibility fencing, which shall remain in place for the duration of ground-disturbing construction activities in the area.

c) Construction-related activities, including grading, trenching, or drilling shall be prohibited within the TPZ. No construction-related vehicles, personal vehicles, or machinery shall be operated or parked within the TPZ. No construction materials, equipment, machinery, or other supplies shall be stored within a TPZ. No wires or signs shall be attached to any tree.

d) Where the TPZ cannot be fully implemented as described in Mitigation Measure 3.4-5a through c, and construction-related activities are determined by the CPUC monitor to have a significant impact to a retained oak tree such that tree health may decline over time and result in tree mortality at a rate faster than normally expected, the CPUC monitor will determine whether the tree shall be removed or retained. Mitigation for the removed or retained tree is defined in Mitigation Measure 3.4-6, below.

Mitigation Measure 3.4-6: Removed native oak trees and retained native oak trees (as defined in Policy 7.4.5.2) that are significantly impacted by construction-related activities and determined by the CPUC monitor to potentially decline and result in tree mortality at a rate faster than expected, shall be mitigated through replacement at a 1:1 ratio. The number of trees planted may be greater than the 1:1 ratio to achieve at least 100 percent replacement of impacted trees at the end of the monitoring period. As part of this mitigation, PG&E shall prepare an Oak Mitigation Plan when tree planting locations have been determined. The plan shall include, but is not limited to, details of the number of oak trees to be planted, based on the final total of trees removed or significantly impacted (Mitigation Measure 3.4-5d) by the

Project, specific planting locations, maintenance and irrigation needs, monitoring requirements (i.e., at least 5 years monitoring plant vigor and growth), reporting requirements (e.g., annual reporting to the CPUC), and success criteria to be met before monitoring is concluded (e.g., 100 percent survival at a 1:1 replacement ratio; an independent assessment of "good" overall tree vigor; and tree viability without irrigation). The Oak Mitigation Plan shall be submitted to the CPUC for review and approval prior to implementation.

Significance after Mitigation: Less than Significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan: *NO IMPACT.*

No Habitat Conservation Plans or Natural Community Conservation Plans include the Project area, therefore there would be no impact.

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