# 3.2 Biological Resources

## 3.2.1 ENVIRONMENTAL SETTING

## Existing Conditions

### Project Area and Proposed Activities

#### *Project-Level Areas*

The project-level portions of this project are almost entirely contained within the existing secondary wastewater treatment plant (WWTP) and tertiary WWTP areas, with the exception of a pipeline that will be routed underneath the Old Stockton Road/Five Mile Drive Bridge to connect these two WWTP facilities. Work proposed within the tertiary WWTP and Ponds 1 through 6 would occur entirely within disturbed areas and actively used water treatment ponds. Construction of Pond 8 would occur in undeveloped annual grassland to the south of Ponds 1 through 4 (Figure 3.2-1). This document assumes that all of the City-owned property that contains the secondary WWTP facilities would be directly impacted in some manner during the course of construction, with the exception of the relatively natural pond and associated riparian vegetation in the southeastern corner of the property.

The pipelines that are proposed to connect the secondary WWTP to the tertiary WWTP would run from the tertiary WWTP east through ruderal vegetation to Five Mile Drive. The pipelines would then run along Five Mile Drive, under the Old Stockton Road/Five Mile Drive Bridge, and either south along Old Stockton Road until they turn east into the secondary WWTP or east along West Marlette Street until they turn south into the secondary WWTP. As the precise route of the pipelines along the roads has not yet been determined, both options are analyzed in this document. The pipelines would be mounted on the underside of the existing bridge, and impacts to Sutter Creek and the adjacent riparian corridor would be avoided to the extent feasible.

Pond 7 did not receive CEQA analysis prior to its construction. As a result, Pond 7 is being analyzed in this CEQA document, even though it has already been built and is in operation. An aerial photograph from 1999, taken prior to construction of Pond 7, was visually assessed (Digital Globe 1999) for reference to preconstruction conditions. This area appeared to be a fallow field with numerous blackberry thickets throughout. A number of large trees also appear to have been present prior to construction of Pond 7.

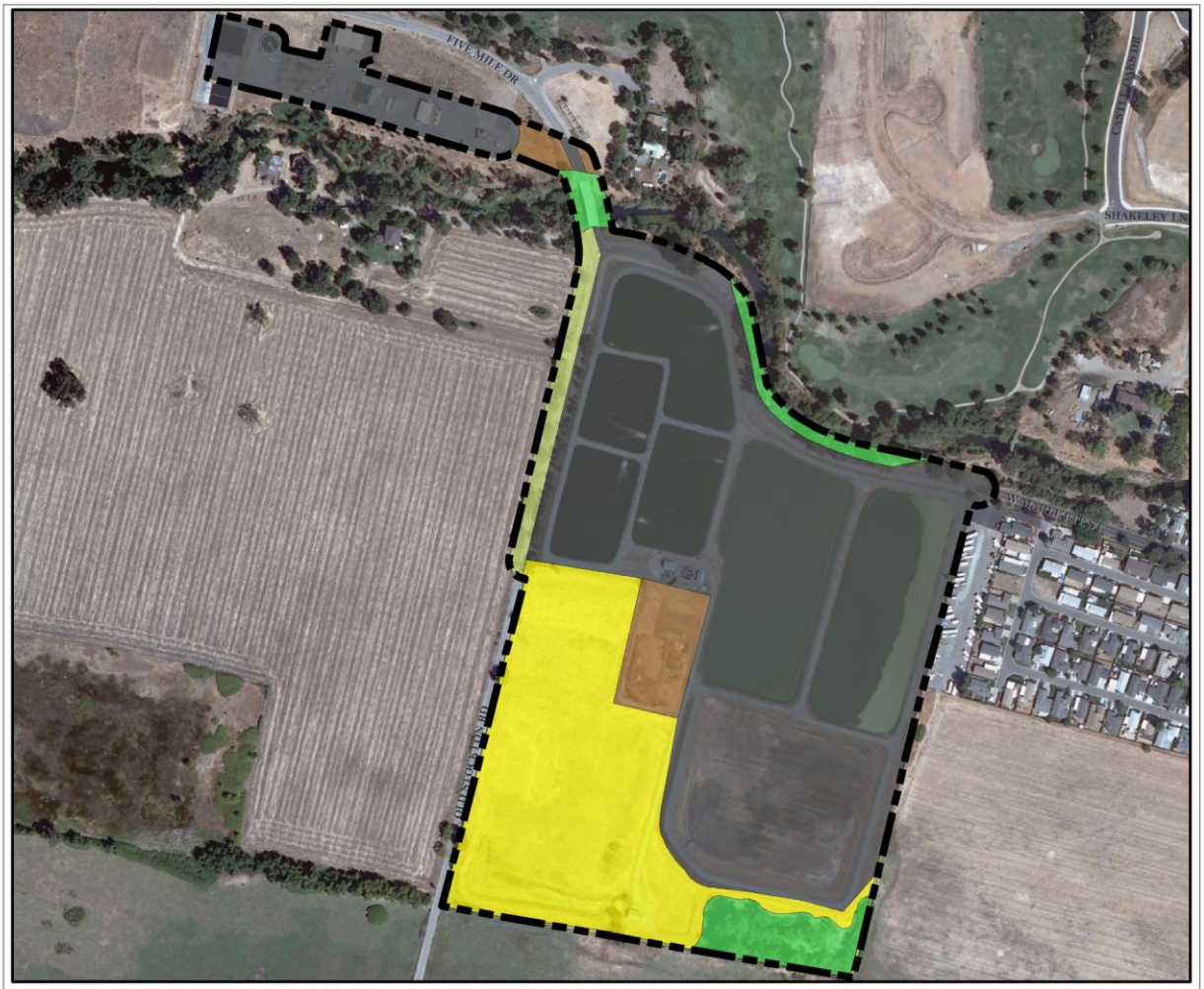
Special-status plant surveys, vegetation mapping, and wetland surveys were conducted in 2008 by ECORP biologists throughout the project-level area (ECORP 2008a, ECORP 2008b). The results of these surveys were used for this analysis.

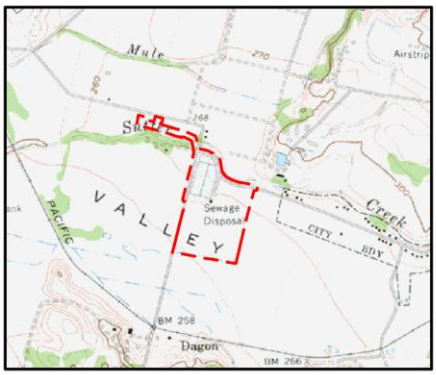
#### *Programmatic-Level Areas*

The majority of the programmatic-level portions of the proposed project run along existing paved and dirt roads; however, as limits of disturbance have not yet been defined, these portions of the project could result in impacts to a variety of vegetation communities adjacent to these roads. Programmatic-level portions of the project that are not planned along existing roads include:

- Construction of Pond 9, which is proposed for construction within a fallow grassland field;
- Construction of a pipeline to Preston Reservoir, which would run through portions of the Castle Oaks golf course, along Mule Creek, and then through irrigated pastures within the boundary of Mule Creek Prison; and

**Figure 3.2-1:** Vegetation Communities




VEGETATION COMMUNITY ACREAGE

| CLASSIFICATION | ACREAGE |
|---|---|
| **VEGETATION COMMUNITY:** | |
| Agricultural Fields | 1.32 |
| Annual Grassland | 11.72 |
| Great Valley Mixed Riparian Forest | 2.66 |
| Ruderal/Disturbed | 1.98 |
| Urban | 32.53 |
| **TOTAL:** | 50.21 |

**SOURCE:** ECORP Consulting, Inc. 2009

**LEGEND**

N W E S

Project Boundary

Scale in Feet
0 600

RMT
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- Construction of a pipeline that runs from Charles Howard Park to State Route (SR) 104.

A pipeline may also be constructed from the WWTP facilities to the Ione Water Reservoir to allow for seasonal storage of wastewater, and a new reservoir may be constructed to allow additional storage of wastewater. Additional percolation ponds and associated pipelines may be built to allow for reclaimed water disposal and distribution to other potential end users.

Biological surveys have not been conducted in the programmatic-level areas. As a result, all biological resources with potential to occur in the region are considered to be potentially-occurring within the programmatic-level areas.

### Vegetation Communities

Vegetation communities discussed below are those that are known to occur within project-level areas (Figure 3.2-1), as well as those that may occur within programmatic-level areas. As field surveys have been conducted in some, but not all, of the programmatic-level areas, future environmental analysis will need to be done for these areas.

#### *Annual Grassland*

Annual grassland is present within the project-level and programmatic-level areas. The annual grassland community on-site is composed primarily of non-native and native grasses and a variety of other weedy species. Grasses observed in this community include wild oats (*Avena fatua*), Italian ryegrass (*Lolium multiflorum*), hedgehog dogtail grass (*Cynosurus echinatus*), soft brome (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), California brome (*B. carinatus*), meadow barley (*Hordeum brachyantherum*), hairgrass (*Aira caryophyllea*), purple needle grass (*Nassella pulchra*), and Idaho fescue (*Festuca idahoensis*). Other herbaceous species observed in this community include rose clover (*Trifolium hirtum*), sheep sorrel (*Rumex acetosella*), and narrow-leaved flax (*Linum bienne*).

#### *Northern Hardpan Vernal Pool*

Northern hardpan vernal pool was not observed in the project-level area, but may occur in the programmatic-level areas. Northern hardpan vernal pools are areas of vernally-mesic inclusions within annual grasslands and other vegetation communities. These inclusions usually consist of shallow above ground depressions that lie above clay hardpans. The depressions fill with water during the rainy season, and dry up via evaporation in the spring. Water remains in these features longer than in other seasonal wetlands because water cannot infiltrate into the soil due to the impermeability of the clay hardpan. Plant species commonly observed in northern hardpan vernal pools include slender popcorn flower (*Plagiobothrys stipitatus* ssp. *micranthus*), coast allocarya (*Plagiobothrys undulatus*), narrow boisduvalia (*Epilobium torreyi*), annual hairgrass (*Deschampsia danthonioides*), horned downingia (*Downingia bicornuta*), toothed downingia (*D. cuspidata*), flatface downingia (*D. pulchella*), Vasey's coyote-thistle (*Eryngium vaseyi*), dwarf rush (*Juncus leiospermus*), inch high dwarf rush (*J. uncialis*), Fremont's goldfields (*Lasthenia fremontii*), white meadowfoam (*Limnanthes alba*), water mudwort (*Limosella aquatica*), whitehead navarretia (*Navarretia leucocephala*), yellow owl's-clover (*Castilleja campestris*), Sacramento mesamint (*Pogogyne zizyphoroides*), dwarf woolly-heads (*Psilocarphus brevissimus*), and speedwell (*Veronica arvensis*) (Holland 1986).

#### *Agricultural Fields*

Agricultural fields are present along some of the programmatic-level pipeline alignments. Agricultural uses in the area include irrigated pastures, non-irrigated pastures, and wheat fields. The irrigated and non-irrigated pastures are used for cattle grazing. The irrigated pastures are dominated by hydrophytic herbaceous vegetation such as Italian ryegrass and dallisgrass

(*Paspalum dilatatum*) with bulrush (*Scirpus* species) occurring in the wetter portions of these pastures. The non-irrigated pastures are dominated by common annual grasses such as Italian ryegrass, soft brome, and Medusahead grass (*Taeniatherum caput-medusae*). The wheat fields are monotypic fields of cultivated wheat.

### *Interior Live Oak Chaparral*

Interior live oak chaparral was not observed in the project-level areas, but may occur within the programmatic-level areas. This community is dominated by shrubby interior live oak trees interspersed with coyote brush (*Baccharis pilularis*), toyon, poison oak, and manzanita. Due to the dense canopy cover, understory vegetation is sparse. Herbaceous species in the understory are typically similar to those that can be found in the valley oak woodland community (described below).

### *Mixed Chaparral*

Mixed Chaparral is present along several of the programmatic-level pipeline alignments. Mixed chaparral in the Ione area is dominated primarily by shrubs, including white leaf manzanita (*Arctostaphylos viscida*), green leaf manzanita (*A. manzanita*), chamise (*Adenostoma fasciculatum*), toyon, and yerba santa (*Eriodictyon californicum*). Other species commonly observed in this community include scrub oak (*Quercus berberidifolia*), interior live oak, poison oak, common yarrow (*Achillea millefolium*), coyote brush, rosinweed (*Calycadenia multiglandulosa*), everlasting (*Gnaphalium californicum*), common groundsel (*Senecio vulgaris*), chaparral honeysuckle (*Lonicera interrupta*), scotch broom (*Cytisus scoparius*), deer weed (*Lotus scoparius*), Klamath weed (*Hypericum perforatum*), wood rush (*Luzula comosa*), bentgrass (*Agrostis* species), wooly-leaf ceanothus (*Ceanothus tomentosus*), California coffeeberry (*Rhamnus californica* ssp. *californica*), hoary coffeeberry (*R. tomentella* ssp. *tomentella*), Parry's horkelia (*Horkelia parryi*), bush monkey-flower (*Mimulus aurantiacus*), California figwort (*Scrophularia californica*), moth mullein (*Verbascum blattaria*), and wooly mullein (*V. thapsus*).

### *Ione Chaparral*

Ione chaparral was not observed in the project-level area, but may occur in the programmatic-level areas. Ione chaparral is similar in plant composition to mixed chaparral, but is dominated by Ione manzanita (*Arctostaphylos myrtifolia*). Other plant species commonly observed within Ione chaparral include chamise, white leaf manzanita, wooly-leaf ceanothus, yerba santa, Ione buckwheat (*Eriogonum apricum*), Bisbee Peak rush-rose (*Helianthemum suffrutescens*), toyon, deer weed, knobcone pine (*Pinus attenuata*), foothill pine (*Pinus sabiniana*), Canyon live oak (*Quercus chrysolepis*), scrub oak (*Q. dumosa*), interior live oak, and hoary coffeeberry (*Rhamnus californica* ssp. *tomentella*) (Holland 1986).

### *Valley Oak Woodland*

Valley oak woodland was not observed in the project-level areas, but may occur within the programmatic-level areas. The dominant tree species in this community is valley oak (*Quercus lobata*). Other woody species commonly found in this community in the Ione area include blue oak (*Q. douglasii*), interior live oak (*Q. wislizenii*), and poison oak (*Toxicodendron diversilobum*). Understory plant species are dominated by Italian ryegrass, ripgut brome, and hedgehog dogtail grass. Other species observed in the understory include orchard grass (*Dactylis glomerata*), Idaho fescue, curly dock (*Rumex crispus*), fiddle dock (*R. pulcher*), spring vetch (*Vicia sativa*), common sowthistle (*Sonchus oleraceus*), soft brome, vulpia (*Vulpia bromoides*), brodiaea (*Brodiaea* species), foxtail barley (*Hordeum murinum*), English plantain (*Plantago lanceolata*), wall bedstraw (*Galium parisiense*), rose clover, hedge parsley (*Torilis arvensis*), slender sedge (*Carex gracilior*),

Ithuriel's spear (*Triteleia laxa*), California brome, wild cucumber (*Marah* species), and purple sandspurry (*Spergularia rubra*).

### *Pine-Oak Woodland*

Pine-oak woodland was not observed in the project-level areas, but may occur within the programmatic-level areas. The dominant tree species in this community are foothill pine, red gum (*Eucalyptus camaldulensis*), valley oak, interior live oak, and plum (*Prunus* species). Common shrubs within this community include poison oak, toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos* species), rose (*Rosa* species), and scotch broom. Herbaceous species in the understory of this community are similar to those within the valley oak woodland community.

### *Great Valley Mixed Riparian Forest*

The Great Valley mixed riparian forest vegetation community is present in project-level areas along Sutter Creek and Mule Creek, and around the pond in the southern portion of the secondary WWTP. It may be present in programmatic-level areas as well. The dominant woody species within this community includes valley oak, California black walnut (*Juglans californica*), blue elderberry (*Sambucus mexicana*), and Himalayan blackberry (*Rubus discolor*). Other species commonly observed within this community include box elder (*Acer negundo*), sandbar willow (*Salix exigua*), arroyo willow (*S. lasiolepis*), Douglas' mugwort (*Artemisia douglasii*), California buckeye (*Aesculus californica*), white alder (*Alnus rhombifolia*), Fremont cottonwood (*Populus fremontii*), rose, California grape (*Vitis californica*), buttonwillow (*Cephalanthus occidentalis*), horehound (*Marrubium vulgare*), orchard grass, tree of heaven (*Ailanthus altissima*), poison oak, California blackberry (*Rubus ursinus*), and horsetail (*Equisetum* species).

### *Ruderal/Disturbed*

The ruderal/disturbed community type refers to those areas that have been previously graded or modified and are dominated by weedy herbaceous species. Dominant plant species in the ruderal/disturbed plant community include Italian ryegrass, black mustard (*Brassica nigra*), milk thistle (*Silybum marianum*), and common mallow (*Malva neglecta*). Other species commonly observed in this community include cultivated wheat (*Triticum aestivum*), wild oats, rose clover, ripgut brome, cut-leaved geranium (*Erodium cicutarium*), Idaho fescue, rat-tail vulpia (*Vulpia myuros*), winter vetch (*Vicia villosa*), white goosefoot (*Chenopodium album*), annual rabbit-foot grass (*Polypogon monspeliensis*), and purple sandspurry.

### *Urban*

The urban designation refers to those areas occupied by buildings or other man-made structures. Within the project-level site areas, the urban designation includes the water treatment ponds and roads within the secondary WWTP, and the buildings on the north side of Sutter Creek that are associated with the tertiary WWTP. These areas are entirely unvegetated, and typically paved.

### Waters of the U.S.

The waters of the U.S. described here are those that have been mapped within the project-level areas (Figure 3.2-2). These features were mapped in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (U.S. Army Corps of Engineers 2006). The boundaries of potential waters of the U.S. were delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses). The acreages presented in Figure 3.2-2 represent a calculated estimation of the jurisdictional area within the site, and are subject to modification during the U.S. Army Corps of Engineers (USACOE) verification process.

**Figure 3.2-2:** Wetland/Waters Impacts


**WATERS OF THE U.S. IMPACT ACREAGE**

| CLASSIFICATION | EXISTING ACREAGE | IMPACT ACREAGE |
|---|---|---|
| **WETLANDS:** | | |
| Seasonal Wetland | 0.80 | 0.62 |
| **OTHER WATERS:** | | |
| Pond | 0.82 | 0.00 |
| Sutter Creek | 0.32 | 0.00 |
| **TOTAL:** | 1.94 | 0.62 |

**SOURCE:** ECORP Consulting, Inc. 2009

**LEGEND**

Project Boundary

Impacted Feature

N W E S

Scale in Feet
0 600

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### *Wetlands*

*Seasonal Wetlands*

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short, and the wetlands are commonly dominated by non-native annual, and sometimes perennial, hydrophytic plant species. Two seasonal wetlands have been mapped within the project-level areas. Both of them are excavated features associated with the secondary WWTP, but as they are not actively used and maintained, they now support hydrophytic vegetation. Plant species commonly observed within these features include curly dock, prickly sowthistle (*Sonchus asper*), smartweed (*Polygonum* species), annual rabbitsfoot grass, Mediterranean barley, hyssop loosestrife (*Lythrum hyssopifolium*), creeping spikerush (*Eleocharis macrostachya*), little quaking grass (*Briza minor*), toad rush (*Juncus bufonius*), tall flatsedge (*Cyperus eragrostis*), cattail (*Typha* species), and cut-leaved geranium.

### *Other Waters*

*Ponds*

One relatively natural pond is present in the southeastern corner of the secondary WWTP property. This feature appears to have been created many years ago as an agricultural irrigation pond, and is now surrounded by dense riparian vegetation. This habitat is described above as Great Valley mixed riparian forest, under Vegetation Communities. Dominant plant species observed around this feature include Fremont's cottonwood, California black walnut (*Juglans californica*), Himalayan blackberry*,* sandbar willow, arroyo willow, and black willow (*Salix gooddingii*).

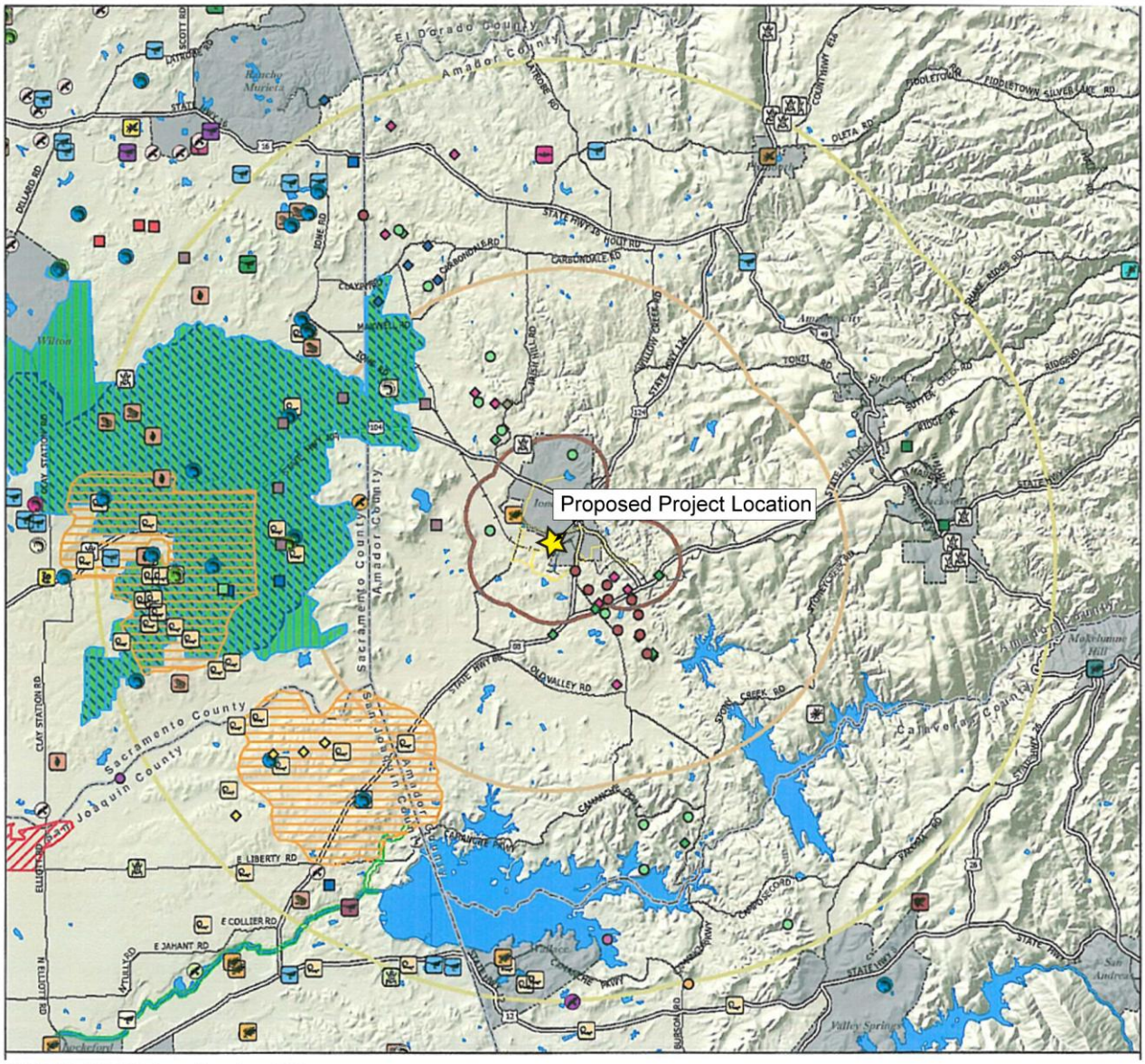
*Sutter Creek*

Sutter Creek flows from east to west and is located north of the secondary WWTP and south of the tertiary WWTP. Sutter Creek is a perennial drainage that supports riparian forest vegetation above the ordinary high water mark (OHWM). A diverse herbaceous community has established between the OHWM and the edge of the low-flow channel. Plant species commonly observed within this area include Queen Anne's lace (*Daucus carota*), mugwort (*Artemisia douglasiana*), sticktight (*Bidens frondosa*), cudweed (*Gnaphalium luteo-album*), rough cockle-bur (*Xanthium strumarium*), yellow cress (*Rorippa curvisiliqua*), water cress (*Rorippa nasturtium-aquaticum*), water sedge (*Carex aquatilis* var. *dives*), tall flatsedge, creeping spikerush, horsetail (*Equisetum arvense*), California hemp (*Hoita macrostachya*), birdsfoot trefoil ((*Lotus corniculatus*), spearmint (*Mentha spicata*), apple mint (*M. suaveolens*), peppermint (*M.* x. *piperita*), hedge nettle (*Stachys ajugoides*), hairy willow-herb (*Epilobium ciliatum*), water primrose (*Ludwigia peploides* ssp. *peploides*), pokeweed (*Phytolacca americana*), velvet grass (*Holcus lanatus*), rice cutgrass (*Leersia oryzoides*), dallis grass, joint paspalum (*Paspalum distichum*), beard grass (*Polypogon interruptus*), Mediterranean rabbitsfoot grass (*P. maritimus*), smartweeds (*Polygonum* species), docks (*Rumex* species), scarlet monkeyflower (*Mimulus cardinalis*), common monkeyflower (*M. guttatus*), water speedwell (*Veronica anagallis-aquatica*), and stinging nettle (*Urtica dioica*).

### Evaluation of Potentially Occurring Special-Status Species

There is one previously documented occurrence of a special-status species within the programmatic-level areas as documented by the California Natural Diversity Database (CNDDB), and no previously documented occurrences of special-status species within the project-level areas (CDFG 2003). One occurrence of valley elderberry longhorn beetle has been reported on the north side of Sutter Creek (CDFG 2003). Several special-status species occurrences have also been documented within an approximate 10-mile radius of the boundary of the WWTP site (Figure 3.2-3).

**Figure 3.2-3:** CNDDB Occurances of Special-Status Species




**SOURCE:** ECORP Consulting, Inc. 2009

**LEGEND**

N
W E
S

Scale in Miles

0 5 10

RMT

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**Figure 3.2-3 *(Continued)*:** CNDDB Occurances of Special-Status Species


**SOURCE:** ECORP Consulting, Inc. 2009

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### *Plants*

The nine sensitive plant species detailed below have the potential to occur within the project and/or programmatic elements of the project area. A summary of the potentially-occurring sensitive plant species, their status designations, and their potential to occur in the project area is presented in Table 3.2-1.

#### *Ione Manzanita*

Ione manzanita (*Arctostaphylos myrtifolia*) is not listed pursuant to the California Endangered Species Act; however, it is listed as endangered pursuant to the federal Endangered Species Act. It is also designated as a CNPS List 1B species. This evergreen shrub occurs in chaparral and cismontane woodlands associated with very acidic, nutrient-poor, course soils typical of the Ione Formation (CNPS 2001, USFWS 1999a). Ione manzanita blooms from November through February, and it is known to occur at elevations ranging from 200 to 1,925 feet above mean sea level (CNPS 2001). Ione manzanita is endemic to California, and the current range for this species includes Amador and Calaveras counties (CNPS 2009).

Twelve occurrences of Ione manzanita have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located 0.5 mile north of the Preston Reservoir programmatic alignment (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas, but it was detected along SR 124 in the vicinity of the programmatic pipeline routes during rare plant surveys in 2008 (ECORP 2008b). Ione manzanita may be present within chaparral in portions of the programmatic areas that have not yet been surveyed.

#### *Ione Buckwheat*

Ione buckwheat (*Eriogonum apricum* var. *apricum*) is listed as endangered pursuant to both the federal and California Endangered Species Acts, and it is designated as a CNPS List 1B species. This species is an herbaceous perennial that occurs in chaparral communities, and is associated with very acidic, nutrient-poor, course soils typical of the Ione Formation (CNPS 2001, USFWS 1999a). Ione buckwheat blooms from July through October, and it is known to occur at elevations ranging from 195 to 475 feet above mean sea level (CNPS 2001). Ione buckwheat is endemic to California, and the current range of this species includes Amador and Sacramento counties (CNPS 2009).

Ten occurrences of Ione buckwheat have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located adjacent to the programmatic alignments that run along SR 124 (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas (ECORP 2008b). Ione buckwheat may be present in disturbed areas within chaparral in portions of the programmatic areas that have not yet been surveyed.

#### *Irish Hill Buckwheat*

Irish Hill buckwheat (*Eriogonum apricum* var. *prostratum*) is listed as endangered pursuant to both the federal and California Endangered Species Acts, and it is designated as a CNPS List 1B species. This species is an herbaceous perennial that occurs in openings in chaparral communities, and is associated with very acidic, nutrient-poor, course soils typical of the Ione Formation (CNPS 2001, USFWS 1999a). Ione buckwheat blooms from July through October, and it is known to occur at elevations ranging from 300 to 400 feet above mean sea level (CNPS 2001).

Ione buckwheat is endemic to California, and the current range of this species is restricted to two occurrences in the immediate vicinity of Irish Hill and Carbondale Mesa in Amador County (CNPS 2009). These two occurrences of Irish Hill buckwheat are within 10 miles of the site (CDFG 2003).

**Table 3.2-1:** Sensitive Plant Species and Potential for Occurrence in the Project Area

| Species | STATUS Federal*/State*/CNPS** | Potential to Occur Onsite*** |
|---|---|---|
| Ione Manzanita *(Arctostaphylos myrtifolia)* | FE / - / 1B | Likely to Occur |
| Ione Buckwheat *(Eriogonum apricum* var. *apricum)* | FE / SE/ 1B | Likely to Occur |
| Irish Hill Buckwheat *(Eriogonum apricum* var. *prostratum)* | FE / SE / 1B | Likely to Occur |
| Tuolumne Button-Celery *(Eryngium pinnatisectum)* | - / - / 1B | Likely to Occur |
| Boggs Lake Hedge-Hyssop *(Gratiola heterosepala)* | - / SE / 1B | Potential to Occur |
| Bisbee Peak Rush Rose *(Helianthemum suffrutescens)* | - / - / 3 | Likely to Occur |
| Parry's Horkelia *(Horkelia parryi)* | - / - / 1B | Likely to Occur |
| Legenere *(Legenere limosa)* | - / - / 1B | Potential to Occur |
| Pincushion Navarretia *(Navarretia myersii* ssp. *myersii)* | - / - / 1B | Likely to Occur |

**NOTES:**

* FE = Federally endangered; SE = State endangered

** CNPS Designation: 1A = plants presumed extinct in California; 1B = plants rare and endangered in California and throughout their range; 3 = plants on a watch list

*** The potential for each species to occur within the project area was assessed based on the following designations and criteria:

| | |
|---|---|
| **Present:** | The species has been observed in the project area. |
| **Likely to Occur:** | Habitat requirements for the species are found within the project area, and a recent occurrence of the species (within ten years) has been recorded within 5 miles of the project area. |
| **Potential to Occur:** | Habitat requirements for the species are found within the project area, but the species has not been recorded either recently (within ten years) or within 5 miles of the area. |
| **Not Likely to Occur:** | Habitat for the species within the project area is marginally-suitable and the species has not been recorded recently (within ten years) and within 5 miles of the area. |
| **Absent:** | No habitat for the species is found at or adjacent to the project area. |

The nearest of these is located approximately 2 miles northwest of the programmatic alignment to Preston Reservoir (CDFG 2003). This species was not detected during special-status plant surveys (ECORP 2008b), but could be present in openings within chaparral in portions of the programmatic areas that have not yet been surveyed.

*Tuolumne Button-Celery*

Tuolumne button-celery (*Eryngium pinnatisectum*) is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual or perennial that occurs in vernal pools and other mesic

conditions in cismontane woodland and lower montane coniferous forests (CNPS 2001). This species blooms from June through August, and it is known to occur at elevations ranging from 230 to 3,000 feet above mean sea level (CNPS 2001). Tuolumne button-celery is endemic to California, and the current range of this species includes Amador, Calaveras, Sacramento, Sonoma, and Tuolumne counties (CNPS 2009).

Four occurrences of Tuolumne button-celery have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 5 miles northwest of the site (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas (ECORP 2008b), but it could be present if vernal pools or other mesic areas are present within the programmatic areas.

*Boggs Lake Hedge-Hyssop*

Boggs Lake hedge-hyssop (*Gratiola heterosepala*) is not listed pursuant to the federal Endangered Species Act; however, it is listed as endangered pursuant to the California Endangered Species Act, and is designated as a CNPS List 1B species. This species is a small, semi-aquatic, herbaceous annual that occurs on clay soils in vernal pools, marshes, and swamps of lake margins (CNPS 2001, CDFG 2005). Boggs Lake hedge-hyssop blooms from April through August, and is known to occur at elevations ranging from 30 to 7,790 feet above mean sea level (CNPS 2001). The current range of this species in California includes Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, and Tehama counties (CNPS 2001, CDFG 2005).

Four occurrences of Bogg's Lake hedge-hyssop have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 6 miles southwest of the site (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas (ECORP 2008b), but it could be present if vernal pools or seasonal wetlands are present within the programmatic areas.

*Bisbee Peak Rush Rose*

Bisbee Peak rush rose (*Helianthemum suffrutescens*) is not listed pursuant to the California or federal Endangered Species Acts; however it is designated as a CNPS List 3 species. This species is an evergreen shrub that occurs in chaparral on serpentinite, grabbroic or Ione soils (CNPS 2001). Bisbee peak rush rose blooms from April to June, and it is known to occur at elevations ranging from 150 to 2,750 feet above mean sea level (CNPS 2001). Bisbee peak rush rose is endemic to California, and the current range of this species includes Amador, Calveras, El Dorado, Mariposa, Sacramento, and Tuolumne counties (CNPS 2008).

Thirteen occurrences of Bisbee Peak rush rose have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located adjacent to the programmatic alignments that run along SR 124 (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas, but it was detected very close to the programmatic potential pipeline route 2 (ECORP 2008b). Bisbee Peak rush rose may be present within chaparral or woodlands in portions of the programmatic areas that have not been surveyed.

*Parry's Horkelia*

Parry's horkelia (*Horkelia parryi*) is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is a small, herbaceous perennial that occurs in chaparral and cismontane woodlands, and is associated with very acidic, nutrient-poor, course soils typical of the Ione Formation (CNPS 2001). Parry's horkelia blooms from April through June, and it is known to occur at elevations ranging from 265 to 3,425 feet above mean sea level (CNPS 2001). Parry's horkelia is endemic to

California, and the current range for this species includes Amador, Calaveras, El Dorado, and Mariposa counties (CNPS 2001).

Nine occurrences of Parry's horkelia have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located adjacent to the programmatic pipeline alignments that run along SR 124 (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas, but it was detected near the programmatic potential pipeline route 2 (ECORP 2008b). Parry's horkelia may be present within chaparral or woodlands in portions of the programmatic areas that have not yet been surveyed.

*Legenere*

Legenere (*Legenere limosa*) is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in a variety of seasonally inundated environments including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages (CNPS 2001, Placer County 2003). Legenere blooms from April through June, and it is known to occur at elevations ranging from sea level to 2,900 feet above mean sea level (CNPS 2001). Legenere is endemic to California, and the current range of this species includes Alameda, Lake, Napa, Placer, Sacramento, Santa Clara, San Joaquin, Shasta, San Mateo, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties (CNPS 2009). However, the species is believed to be extirpated from Sonoma and Stanislaus counties (CNPS 2009).

Four occurrences of legenere have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 6 miles west of the site (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas (ECORP 2008b), but it could be present if vernal pools, marshes or ponds are present within the programmatic areas.

*Pincushion Navarretia*

Pincushion navarretia (*Navarretia myersii* ssp. *myersii*) is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in vernal pools that are often acidic (CNPS 2001). Pincushion navarretia blooms in May, and it is known to occur at elevations ranging from 65 to 1,100 feet above mean sea level (CNPS 2001). Pincushion navarretia is endemic to California, and the current range of this species includes Amador, Calaveras, Merced, Placer, and Sacramento counties (CNPS 2009).

Seven occurrences of pincushion navarretia have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 2 miles west of the site (CDFG 2003). This species was not detected during special-status plant surveys within the project-level areas (ECORP 2008b), but it could be present if vernal pools or seasonal wetlands are present within the programmatic areas.

### *Wildlife - Summary*

The wildlife species detailed below have the potential to occur within the project and/or programmatic elements of the project area. A summary of the potentially-occurring special status wildlife species, their status designations, and their potential to occur in the project area is presented in Table 3.2-2.

**Table 3.2-2:** Special Status Wildlife Species Potential for Occurrence in the Project Area

| Species | STATUS Federal*/State*/Other** | Potential to Occur Onsite*** |
|---|---|---|
| ***Invertebrates*** | | |
| Vernal Pool Fairy Shrimp *(Branchinecta lynchi)* | FT / - / - | Potential to Occur |
| Valley Elderberry Longhorn Beetle *(Desmocerus californicus dimorphus)* | FT / - / - | Likely to Occur |
| Vernal Pool Tadpole Shrimp (*Lepidurus packardi*) | FE / - / - | Likely to Occur |
| California Linderiella *(Linderiella occidentalis)* | - / - / CNDDB | Likely to Occur |
| ***Amphibians*** | | |
| Western Spadefoot Toad *(Spea hammondii)* | - / - / SC | Potential to Occur |
| California Tiger Salamander *(Ambystoma californiense)* | FT / - / SC | Likely to Occur |
| California Red-Legged Frog (Rana aurora draytonii) | FT / - / SC | Potential to Occur |
| Foothill yellow-legged frog (*Rana boylii*) | - / - / SC | Potential to Occur |
| ***Reptiles*** | | |
| Western pond turtle (*Actinemys marmorata*) | - / - / SC | Likely to Occur |
| Coast horned lizard (*Phrynosoma coronatum frontale*) | - / - / SC | Potential to Occur |
| ***Birds*** | | |
| White-tailed kite (*Elanus leucurus*) | - / - / FP | Potential to Occur |
| Northern harrier (*Circus cyaneus*) | - / - / SC | Potential to Occur |
| Sharp-shinned hawk (*Accipiter striatus*) | - / - / CNDDB | Potential to Occur |
| Cooper's hawk (*Accipiter cooperii*) | - / - / CNDDB | Potential to Occur |
| Ferruginous hawks (*Buteo regalis*) | - / - / CNDDB | Potential to Occur |
| Golden eagle (*Aquila chrysaetos*) | - / - / FP | Likely to Occur |
| Osprey (*Pandion haliaetus*) | - / - / SC | Potential to Occur |
| Bald eagle (*Haliaeetus leucocephalus*) | FT / SE / FP | Potential to Occur |
| Merlin (*Falco columbarius*) | - / - / CNDDB | Potential to Occur |

**Table 3.2-2 *(Continued)*:** Special Status Wildlife Species Potential for Occurrence in the Project Area

| Species | STATUS Federal*/State*/Other** | Potential to Occur Onsite*** |
|---|---|---|
| Prairie falcons (*Falco mexicanus*) | - /- / BOCC | Not Likely to Occur |
| Burrowing owl (*Athene cunicularia*) | - /- / BOCC, SC | Potential to Occur |
| Loggerhead shrike (*Lanius ludovicianus*) | - /- / BOCC, SC | Potential to Occur |
| Yellow warbler (*Dendroica petechia*) | - / - / SC | Potential to Occur |
| Yellow-breasted chat (*Icteria virens*) | - / - / SC | Potential to Occur |
| Lark sparrow (*Chondestes grammacus*) | - / - / CNDDB | Potential to Occur |
| Grasshopper sparrow (*Ammodramus savannarum*) | - / - / SC | Potential to Occur |
| Tricolored blackbird (*Agelaius tricolor*) | - / - / SC | Potential to Occur |
| Lawrence's goldfinch (*Carduelis lawrencei*) | - /- / BOCC | Potential to Occur |
| Colonial Nesting Water Birds | | Not Likely to Occur |
| ***Mammals*** | | |
| Yuma myotis (*Myotis yumanensis*) | - / - / CNDDB | Potential to Occur |
| Hoary bat (*Lasiurus cinereus*) | - / - / CNDDB | Potential to Occur |
| Western bat (*Lasiurus blossevillii*) | - / - / CNDDB | Potential to Occur |
| Townsend's big-eared bat (*Corynorhinus townsendii*) | - / - / SC | Potential to Occur |
| Pallid bat (*Antrozous pallidus*) | - / - / SC | Potential to Occur |
| ***Fish*** | | |
| Central Valley steelhead (*Oncorhynchus mykiss)*, | FT / - / - | Not Likely to Occur |
| Chinook salmon (*Oncorhynchus tshawytscha)* | cFT/ - / SC | Not Likely to Occur |

**NOTES:**

*FE = Federally endangered; FT = Federally threatened; cFT = candidate for federally threatened status; SE= State endangered;

** SC = California Species of Special Concern; CNDDB = occurrences of species are tracked by California Natural Diversity Database, FP = Fully protected; BOCC = USFWS Bird of Conservation Concern ;

*** The potential for each species to occur within the project area was assessed based on the following designations and criteria:

**Present:** The species has been observed in the project area.

| **Table 3.2-2 *(Continued)*:** Special Status Wildlife Species Potential for Occurrence in the Project Area | | |
|---|---|---|
| **Species** | **STATUS Federal*/State*/Other**** | **Potential to Occur Onsite***** |
| **Likely to Occur:** | Habitat requirements for the species are found within the project area, and a recent occurrence of the species (within ten years) has been recorded within 5 miles of the project area. | |
| **Potential to Occur:** | Habitat requirements for the species are found within the project area, but the species has not been recorded either recently (within ten years) or within 5 miles of the area. | |
| **Not Likely to Occur:** | Habitat for the species within the project area is marginally-suitable and the species has not been recorded recently (within ten years) and within 5 miles of the area. | |
| **Absent:** | No habitat for the species is found at or adjacent to the project area. | |

### *Wildlife - Invertebrates*

*Vernal Pool Fairy Shrimp*

The vernal pool fairy shrimp (*Branchinecta lynchi*) is listed as threatened in accordance with the federal Endangered Species Act. Vernal pool fairy shrimp may occur in seasonal ponds, vernal pools, and swales during the wet season, which generally occurs from December through May. This species can be found in a variety of pool sizes, ranging from less than 0.001 acre to over 24.5 acres (Eriksen and Belk 1999). The shrimp hatch from cysts when colder water (10°C [50°F] or less) fills the pool and mature in as few as 18 days, under optimal conditions (Eriksen and Belk 1999). At maturity, mating takes place and cysts are dropped. Vernal pool fairy shrimp occur in disjunct patches dispersed across California's Central Valley from Shasta County to Tulare County, the central and southern Coast Ranges from northern Solano County to Ventura County, and three areas in Riverside County (USFWS 2003).

Fourteen occurrences of vernal pool fairy shrimp have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 5 miles west of the site (CDFG 2003). Critical habitat for this species is present approximately three miles west of the site (USFWS 2006). The seasonal wetland in the southwestern corner of the secondary WWTP property represents habitat for this species, and surveys have not been conducted to document presence or absence of vernal pool branchiopods. In addition, suitable habitat may be present within programmatic areas if vernal pools or seasonal wetlands are present.

*Valley Elderberry Longhorn Beetle*

The Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is listed as threatened in accordance with the federal Endangered Species Act (USFWS 1980). The Valley elderberry longhorn beetle is completely dependent on its host plant, elderberry (*Sambucus* species), which occurs in riparian and other woodland and scrub communities (USFWS 1999b). Elderberry plants, located within the range of the beetle, with one or more stems measuring 1 inch or greater in diameter at ground level are considered to be habitat for the species (USFWS 1999b). The adult flight season extends from late March through June. During that time the adults feed on foliage and perhaps flowers, mate, and females lay eggs on living elderberry plants (Barr 1991). The first instar[1] larvae bore into live elderberry stems, where they develop for one to two years feeding on

[1] Instar refers to any of the various stages of an insect or other arthropod between molts

the pith. The fifth instar larvae create exit holes in the stems and then plug the holes and remain in the stems through pupation (Talley et al. 2007). The beetle's current distribution is patchy throughout California's Central Valley, from Shasta County to Kern County, and associated foothills up to an elevation of approximately 3,000 ft (USFWS 1999b).

Two occurrences of Valley elderberry longhorn beetle have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located in the programmatic-level area for Pond 9 just west of the existing tertiary WWTP (CDFG 2003). Elderberry shrubs are present throughout the Sutter Creek riparian corridor, and one shrub is present within the secondary WWTP site (see Figure 3.2-4). Additional elderberry shrubs may be present within unsurveyed portions of the programmatic areas. All of these shrubs are considered suitable habitat for Valley elderberry longhorn beetle.

*Vernal Pool Tadpole Shrimp*

The vernal pool tadpole shrimp (*Lepidurus packardi*) is listed as endangered pursuant to the federal Endangered Species Act. This species inhabits vernal pools containing clear to highly turbid water, ranging in size from 0.001 to 89.0 acres (USFWS 1994). Vernal pool tadpole shrimp are distinguished from other vernal pool branchiopods discussed in this report by a large, shield like carapace that covers the anterior half of their body (USFWS 2003). Cysts hatch during the wet season and the shrimp reach maturity in a few weeks. This species matures slowly and is long lived, relative to other species. Vernal pool tadpole shrimp will continue to grow as long as the pools they occur in remain inundated, and in some instances can survive for six months or longer (USFWS 2003). The geographic range of vernal pool tadpole shrimp extends from Shasta County to northern Tulare County in California's Central Valley, and in the Central Coast Range from Solano County to Alameda County (USFWS 2003).

Six occurrences of vernal pool tadpole shrimp have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 5 miles west of the site (CDFG 2003). Critical habitat for this species is present approximately three miles west of the site (USFWS 2006). The seasonal wetland in the southwestern corner of the secondary WWTP property represents habitat for this species, and surveys have not been conducted to document presence or absence of vernal pool branchiopods. In addition, suitable habitat may be present within programmatic areas if vernal pools or seasonal wetlands are present.

*California Linderiella*

California linderiella (*Linderiella occidentalis*) is not listed pursuant to either the California or federal Endangered Species Acts; however, occurrences of this species are tracked by the CNDDB. This species is endemic to California's vernal pools and seasonal ponds. California linderiella inhabit a variety of seasonal ponds, vernal pools, and swales. The shrimp hatch from cysts during late December when water temperatures are below 20°C (68°F), more commonly at 10°C (50°F) (Eriksen and Belk 1999). California linderiella, due to its tolerance for warmer water, may persist until the pools evaporate completely (Helm 1998). This species ranges from Tehama County south through the Central Valley to Fresno County with disjunct populations in Mendocino and Lake Counties south to Ventura and Santa Barbara Counties (Eriksen and Belk 1999).

Two occurrences of California linderiella have been reported within 10 miles of the site (CDFG 2003). The nearest of these is located approximately 4 miles northwest of the site (CDFG 2003). The seasonal wetland in the southwestern corner of the secondary WWTP property represents habitat for this species, and surveys have not been conducted to document presence or absence of vernal pool branchiopods. In addition, suitable habitat may be present within programmatic areas if vernal pools or seasonal wetlands are present.

**Figure 3.2-4:** Approximate Elderberry Locations

### *Wildlife - Fish*

Sutter Creek and Mule Creek represent potential rearing habitat for special-status fish species. Anadromous salmonids potentially occurring within the project area include Central Valley steelhead Evolutionary Significant Unit (ESU) (*Oncorhynchus mykiss*, federal – threatened) and Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha,* federal candidate for listing and CDFG species of special concern). The Central Valley steelhead ESU includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries. Sutter Creek and Mule Creek are tributary to Dry Creek, which is tributary to the Mokelumne River approximately 30 miles downstream of the site. The National Marine Fisheries Service (NOAA Fisheries) has identified the Mokelumne River as critical habitat for the Central Valley steelhead ESU. There are no immediate fish issues associated with the project site, but impacts to Sutter Creek or Mule Creek could potentially be viewed by regulatory agencies as affecting downstream essential fish habitat for federally listed anadromous salmonids.

### *Wildlife - Amphibians*

#### *Western Spadefoot Toad*

The western spadefoot toad (*Spea hammondii*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CDFG species of special concern. Necessary habitat components of the western spadefoot toad include suitable underground retreats and breeding ponds. Suitable breeding sites include temporary rain pools, such as vernal pools and seasonal wetlands, or pools within portions of intermittent drainages (Jennings and Hayes 1994). Spadefoot toads spend most of their adult life within underground burrows or other suitable refugia, such as rodent burrows. In California, western spadefoot toads are known to occur from the Redding area, Shasta County southward to northwestern Baja California, at elevations below 4,475 ft (Jennings and Hayes 1994).

There are seven known occurrences of western spadefoot toad within 10 miles of the site (CDFG 2003). The nearest of these occurrences is located approximately 6 miles northwest of the site (CDFG 2003). Seasonal wetlands and vernal pools within the project-level and programmatic-level areas represent potential habitat for this species.

#### *California Tiger Salamander*

The Central Valley population of the California tiger salamander (*Ambystoma californiense*, federal threatened, CDFG species of special concern) was recently listed by the USFWS. The California tiger salamander typically occurs within annual grassland/vernal pool landscapes, but often utilizes adjacent habitat types, particularly if potential breeding habitat (e.g., stock ponds or other seasonal wetlands) is present. The appropriate survey period for potentially occurring special status amphibian species is roughly from March until June.

There are thirty-one known occurrences of California tiger salamander within 10 miles of the site (CDFG 2003). The nearest of these occurrences is located approximately 4 miles northwest of the site (CDFG 2003). Critical habitat for this species is present approximately 4 miles southwest of the site (USFWS 2005). No suitable breeding habitat was observed within the project-level areas, but seasonal wetlands, vernal pools, and seasonal ponds within the programmatic areas could represent suitable breeding habitat.

#### *California Red-Legged Frog*

The California red-legged frog (*Rana draytonii*) is listed as a threatened species pursuant to the federal Endangered Species Act, and is considered to be species of special concern by CDFG. Adult California red-legged frogs prefer dense, shrubby, or emergent riparian vegetation near deep

[≥2.3 ft (0.7 m)], still or slow moving water, especially where dense stands of overhanging willow and an intermixed fringe of cattail occur (Hayes and Jennings 1988). This subspecies breeds from November through April (Jennings and Hayes 1994) in a variety of aquatic habitats including streams, deep pools, backwater areas within streams and creeks, ponds, marshes, sag ponds, dune ponds, stock ponds, and lagoons (USFWS 2002a). Upland areas provide important sheltering habitat during the winter when California red-legged frogs often aestivate[2] in burrows and leaf litter, and are important during warmer months as foraging areas.

The historic range of the California red-legged frog extended through Pacific slope drainages from Shasta County, California, south to northwestern Baja California, Mexico (Jennings and Hayes 1994, USFWS 2002a). This area includes the Coast Ranges and the west slope of the Sierra Nevada Mountains at elevations below 5,000 ft. The current range is greatly reduced, with most remaining populations occurring along the coast from Marin County to Ventura County; and in isolated locations along the foothill region of the west slopes of the Sierra Nevada Mountains. The California red-legged frog has experienced a 70 percent reduction in its range in California as a result of several factors including habitat alteration, excessive harvest, and introduction of non-native predators, especially bullfrogs and introduced fish species. Current information suggests that this species has been extirpated from most of its Sierra Nevada range (Jennings 1996), and is considered to be extirpated from the floor of the Central Valley (USFWS 1996).

The CNDDB does not contain any records of California red-legged frog within 10 miles of the site (CDFG 2003). The nearest reported occurrence of this species is approximately 11 miles southeast of the site along Young's Creek in Calaveras County (CDFG 2003). Suitable habitat for this species is present in marshes, ponds, and creeks throughout the project and programmatic areas.

*Foothill Yellow-Legged Frog*

The foothill yellow-legged frog (*Rana boylii*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CDFG species of special concern. Known from the transverse range of southern California and north to central Oregon, this species occurs in both the coastal range and western slopes of the Sierra Nevada Mountains (Zeiner et al. 1988). The frog occurs up to 6,000 feet in the Sierra Nevada Mountains in rocky streams with hardwood and conifer riparian tree canopy. The foothill yellow-legged frog is relatively restricted to perennial streams, and is rarely observed beyond the riparian zone. Their home range is small, typically less than 33 feet in radius (Zeiner et al. 1988).

The CNDDB does not contain any records of foothill yellow-legged frog within 10 miles of the site (CDFG 2003). Suitable habitat for this species is present in Sutter Creek and Mule Creek within the project-level and programmatic-level areas.

### *Wildlife - Reptiles*

*Western Pond Turtle*

The western pond turtle (*Actinemys marmorata*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CDFG species of special concern. Western pond turtles occur in a variety of fresh and brackish water habitats including marshes, lakes, ponds, and slow moving streams (Jennings and Hayes 1994). This species is primarily aquatic; however, they typically leave aquatic habitats to lay eggs and to overwinter (Jennings and Hayes 1994). Deep, still water with abundant emergent woody debris, overhanging vegetation, and rock outcrops is optimal for basking and thermoregulation. Although adults are

[2] Aestivate means lying dormant during summer.

habitat generalists, hatchlings and juveniles require specialized habitat for survival through the first few years. Hatchlings require shallow water with relatively dense submergent or short emergent vegetation in which to forage.

Western pond turtles are typically active between March and November. Mating generally occurs during late April and early May and eggs are deposited between late April and early August (Jennings and Hayes 1994). Eggs are deposited within excavated nests in upland areas, with substrates that typically have high clay or silt fractions, usually in the vicinity of aquatic habitats (Jennings and Hayes 1994). The majority of nesting sites are located within 650 feet of the aquatic habitat; however, sites have been documented as far as 1,310 feet from the aquatic habitat.

There are seven known occurrences of western pond turtle within 10 miles of the site (CDFG 2003). The nearest of these occurrences is located approximately 1 mile northwest of the site (CDFG 2003). The natural pond at the southeast corner of the secondary WWTP site, as well as Sutter Creek, represent suitable habitat for this species within the project-level area. Ponds and other perennial water bodies within the programmatic-level area would also provide suitable habitat for western pond turtle.

*Coast Horned Lizard*

The coast horned lizard (*Phrynosoma coronatum frontale*) is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a species of special concern by the CDFG. The species can occur within a variety of environments including scrubland, annual grassland, Valley-foothill woodlands, and coniferous forest, though it is most common in and along lowland sandy washes (Zeiner et al. 1988, Stebbins 2003).

The CNDDB does not contain any records of coast horned lizard within 10 miles of the site (CDFG 2003). Suitable habitat for this species is present in open areas throughout the project-level and programmatic-level areas.

***Wildlife - Birds***

*White-Tailed Kite*

White-tailed kite (*Elanus leucurus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, the species is fully protected pursuant to Section 3511 of the California Fish and Game Code. This species is a common resident in the Central Valley and the entire length of the California coast (Dunk 1995). In northern California, white-tailed kites typically nest from March through June. Nesting occurs in trees within riparian, oak woodland, savannah, and agricultural communities that are found in or near foraging areas such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands.

The CNDDB does not contain any nesting records of white-tailed kite within 10 miles of the site (CDFG 2003). The trees throughout the project-level and programmatic-level areas represent suitable nesting habitat for this species.

*Northern Harrier*

The northern harrier (*Circus cyaneus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is considered to be a species of special concern by the CDFG. This species is known to nest within the Central Valley, along the Pacific Coast, and in northeastern California. The northern harrier is a ground nesting species, and typically nests in emergent wetland/marsh, open grasslands, or savannah communities usually in areas with dense vegetation (Macwhirter and Bildstein 1996). Foraging occurs within a variety of open environments such as marshes, agricultural fields, and grasslands.

The CNDDB does not contain any nesting records of northern harrier within 10 miles of the site (CDFG 2003). The grassland throughout the project-level and programmatic-level areas represents suitable nesting habitat for this species.

*Sharp-Shinned Hawk*

Sharp-shinned hawk (*Accipiter striatus*) is not listed pursuant to either the California or federal Endangered Species Acts. However, active nest sites are currently tracked in the CNDDB by CDFG. The species is a common migrant and winter resident in the Central Valley of California. A wide variety of communities, with the exception of open prairie, desert, and alpine, are used during winter (Zeiner et al. 1990a). This hawk breeds in Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine communities (Zeiner et al. 1990a). Nests are usually found in dense, even-aged, single-layer forests near water (Zeiner et al. 1990a). Conifers appear to be most frequently used, although deciduous trees are the norm in some locales (Bildstein and Meyer 2000). Breeding occurs from April through August with the peak season from May to July (Zeiner et al. 1990a). Sharp-shinned hawks do not nest in the project region but may occasionally forage within woodland communities on-site during winter or migration.

The CNDDB typically does not track winter foraging occurrences; therefore, there are no records of sharp-shinned hawk within 10 miles of the site (CDFG 2003). Woodlands throughout the project-level and programmatic-level areas represent suitable winter foraging habitat for this species.

*Cooper's Hawk*

The Cooper's hawk (*Accipiter cooperii*) is not listed pursuant to either the California or federal Endangered Species Acts. However, active nest sites are currently tracked in the CNDDB by CDFG. Typical nesting and foraging habitats include riparian woodland, dense oak woodland, and other woodlands near water. Cooper's hawk nest throughout California from Siskiyou County to San Diego County, and includes the Central Valley (Rosenfield and Bielefeldt 2006).

The CNDDB does not contain any nesting records of Cooper's hawk within 10 miles of the site (CDFG 2003). The trees throughout the project-level and programmatic-level areas represent suitable nesting habitat for this species.

*Ferruginous Hawk*

Ferruginous hawks (*Buteo regalis*) are not listed pursuant to either the California or federal Endangered Species Acts. However, they are currently tracked in the CNDDB by CDFG. This species typically occurs in open environments and nests from Oregon to Canada, though nesting has recently been documented in Lassen County, California (Small 1994). For the remainder of the state, including the Central Valley, ferruginous hawk occurrences are restricted to the non-breeding season (September through April) (Small 1994). Winter foraging occurs within a variety of open communities including annual grasslands, agricultural areas, and savannahs. Ferruginous hawks do not nest in the region but may occasionally forage within grassland and other open vegetation communities on-site during winter or migration.

The CNDDB typically does not track winter foraging occurrences; therefore, there are no records of ferruginous hawk within 10 miles of the site (CDFG 2003). Grasslands, agricultural fields, and other open areas throughout the project-level and programmatic-level areas represent suitable winter foraging habitat for this species.

*Golden Eagle*

The golden eagle (*Aquila chrysaetos*) is not listed pursuant to either the California or federal Endangered Species Acts. However, it is fully protected according to Section 3511 of the Fish and

Game Code of California. Golden eagles generally nest on cliff ledges and/or large lone trees in rolling to mountainous terrain. Golden eagles nest throughout California except the Central Valley, the immediate coast, and portions of southeastern California (Kochert, et al 2002). Occurrences within the Central Valley are usually dispersing post-breeding birds, non-breeding sub-adults, or migrants. Foraging habitat includes open grassland and savannah. Golden eagles do not typically nest in the region but may occasionally forage within the grassland and other open vegetation communities on-site during winter or migration.

The CNDDB contains one record of a nesting golden eagle approximately 4 miles west of the site (CDFG 2003). Nesting is not anticipated within the project area due to the close proximity of rural residences and existing water treatment facilities. However, grasslands and other open fields throughout the project and programmatic areas represent suitable foraging habitat for this species.

*Osprey*

Osprey (*Pandion haliaetus*) is a CDFG species of special concern and has no federal special status. This species typically nests near open water habitats including seacoasts, lagoons, bays, large rivers, and lakes with available perches and large trees as nest sites. Within California, nesting has been recorded within Modoc, Lassen, Siskiyou, Plumas, Tehama, Shasta, Trinity, and Glenn counties, and along the Pacific Coast from Del Norte County south to Marin County (Small 1994). Nesting occurs during April through October. Within the Central Valley, osprey occur as transients on migration and winter/post-breeding residents.

The CNDDB typically does not track winter foraging occurrences; therefore, there are no records of osprey within 10 miles of the site (CDFG 2003). Large water bodies such as the Preston Reservoir within the programmatic-level area represent suitable foraging habitat for this species.

*Bald Eagle*

Bald eagle (*Haliaeetus leucocephalus*) is listed as endangered and protected pursuant to the California Endangered Species Act and was recently down-listed from federally endangered to threatened. In addition, it is considered a fully protected species according to the Fish and Game Code of California Section 3511. Bald eagles winter throughout California, including the Central Valley, but generally nest in the foothill and mountainous regions near lakes, rivers, and reservoirs in the northern one-third of the state (CDFG 1992). Bald eagles feed upon fish, waterfowl, and carrion.

The CNDDB typically does not track winter foraging occurrences; therefore, there are no records of bald eagle within 10 miles of the site (CDFG 2003). Large water bodies such as the Preston Reservoir within the programmatic-level area represent suitable foraging habitat for this species.

*Merlin*

The Merlin (*Falco columbarius*) is not listed pursuant to either the California or federal Endangered Species Acts, but is currently tracked in the CNDDB by CDFG. This falcon breeds in Canada and Alaska and occurs in California as a migrant and during the non-breeding season (August through April). Foraging habitat includes a wide range of open environments including seacoast estuaries, desert, open grasslands, and semi-open woodlands. Merlin do not nest in the region but may occasionally forage within grassland and woodland communities on-site during winter or migration.

The CNDDB typically does not track winter foraging occurrences; therefore, there are no records of Merlin within 10 miles of the site (CDFG 2003). Grasslands and woodlands throughout the project-level and programmatic-level areas represent suitable foraging habitat for this species.

*Prairie Falcon*

Prairie falcons (*Falco mexicanus*) are not listed pursuant to either the California or federal Endangered Species Acts; however, they are considered to be a USFWS bird of conservation concern. The breeding distribution of prairie falcons includes the entire state except the extreme northwestern part of the state and coastal areas (Steenhof 1998). However, prairie falcons have not been documented to nest in the Central Valley, but instead occur as migrants and wintering birds. In California, prairie falcons inhabit a range of desert, grassland, alpine meadows, rangeland, scrub, and other open communities (Zeiner et al. 1990a, Small 1994). Prairie falcons do not nest in the region but may occasionally forage within grassland communities on-site during winter or migration.

The CNDDB contains one nesting record of prairie falcon approximately 10 miles south of the site (CDFG 2003). Nesting habitat for this species is not present within the project-level area. However, any cliff ledges or rock outcrops present within the programmatic area would represent suitable nesting habitat for prairie falcon.

*Burrowing Owl*

The burrowing owl (*Athene cunicularia*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a bird of conservation concern by the USFWS and a species of special concern by the CDFG. Burrowing owls inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. They can also inhabit developed areas such as golf courses, cemeteries, roadsides within cities, airports, vacant lots in residential areas, school campuses, and fairgrounds (Haug, et al.1993). This species typically uses burrows created by fossorial mammals, most notably the California ground squirrel (*Spermophilus beecheyi*), but may also use man-made structures such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement (CDFG 1995). The breeding season extends from February 1 through August 31 (CBOC 1993, CDFG 1995).

There are four known occurrences of burrowing owl within 10 miles of the site (CDFG 2003). The nearest of these occurrences is located approximately 8 miles west of the site (CDFG 2003). No burrowing owls or potentially occupied burrows were observed within the project-level portions of the site. However, determinate-level surveys for burrowing owl have not been conducted within the grassland area of the secondary WWTP. Therefore, no conclusions can yet be drawn regarding presence or absence of burrowing owl within the secondary WWTP area. If suitable burrows in open areas are present within the programmatic areas, burrowing owl could be present within these areas.

*Loggerhead Shrike*

The loggerhead shrike (*Lanius ludovicianus*) is not listed pursuant to either the California or federal Endangered Species Acts, but it is considered a bird of conservation concern by the USFWS and a species of special concern by the CDFG. Loggerhead shrikes nest throughout California except the northwestern corner, montane forests, and high deserts (Small 1994). Loggerhead shrikes nest in small trees and shrubs in open country with short vegetation such as pastures, old orchards, mowed roadsides, cemeteries, golf courses, agricultural fields, riparian areas, and open woodlands (Yosef 1996). The nesting season extends from March through June.

The CNDDB does not contain any nesting records of loggerhead shrike within 10 miles of the site (CDFG 2003). Trees and shrubs throughout the project-level and programmatic-level areas represent suitable nesting habitat for this species.

*Yellow Warbler*

Yellow warbler (*Dendroica petechia*) is a CDFG species of special concern and has no federal special status. Yellow warbler nest in from Baja California northward to Alaska and winter from southern California to South America (AOU 1983). In California, breeding occurs within riparian woodlands up to 8,000 feet above mean sea level (excluding the Central Valley floor). During migration, yellow warbler may occur in a wide variety of woodland habitats throughout California.

The CNDDB does not contain any nesting records of yellow warbler within 10 miles of the site (CDFG 2003). Dense riparian vegetation throughout the project-level and programmatic-level areas represent suitable nesting habitat for this species.

*Yellow-Breasted Chat*

Yellow-breasted chat (*Icteria virens*) is a CDFG species of special concern and has no Federal special status. Yellow-breasted chat nest in North America and winter in Mexico and Guatemala (CDFG 1990). This warbler typically nests within thick riparian scrub habitat in lower to middle elevations. Nesting occurs during May through August.

The CNDDB contains one nesting record of yellow-breasted chat approximately 9 miles southwest of the site (CDFG 2003). Dense riparian vegetation throughout the project-level and programmatic-level areas represent suitable nesting habitat for this species.

*Lark Sparrow*

The lark sparrow (*Chondestes grammacus*) is not listed or protected pursuant to either the California or federal Endangered Species Acts; however, this specie's nest sites are tracked by CDFG in the CNDDB. Consequently, it is subject to review during the CEQA process. Lark sparrows can be found throughout California, from Siskiyou County south to Nevada County, and through the Central Valley and Coast Range to the Pacific Coast (Martin and Parrish 2000). They nest within a wide variety of communities including oak woodland, chaparral, and oak savannah, among others. Their nests are constructed on the ground, in small trees, or in shrubs. The nesting season generally occurs from April through June.

The CNDDB does not contain any nesting records of lark sparrow within 10 miles of the site (CDFG 2003). The woodland communities throughout the project-level and programmatic-level areas represent suitable nesting habitat for this species.

*Grasshopper Sparrow*

The grasshopper sparrow (*Ammodramus savannarum*) is not listed pursuant to either the California or federal Endangered Species Acts, but it is designated as a species of special concern by the CDFG. The grasshopper sparrow is an uncommon and local, summer resident and breeder along the western edge of the Sierra Nevada Mountains and most coastal counties south to Baja California (where resident) (Zeiner et al. 1990a, Small 1994). This species generally inhabits moderately open grasslands and prairies with patchy bare ground and scattered shrubs (Vickery 1996, Zeiner et al. 1990a). Grasshopper sparrows are more likely to occupy large tracts of habitat than small fragments (Samson 1980, Herkert 1994a, Vickery et al. 1994 as cited in Vickery 1996). Breeding generally occurs from early April to mid-July, with a peak in May and June (Zeiner el al. 1990a).

The CNDDB contains a nesting record of grasshopper sparrow approximately 9 miles northwest of the site (CDFG 2003). Annual grassland throughout the project-level and programmatic-level areas may represent suitable nesting habitat for this species.

*Tricolored Blackbird*

The tricolored blackbird (*Agelaius tricolor*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a species of special concern by the CDFG. This colonial nesting species is distributed widely throughout the Central Valley, Coast Range, and into Oregon, Washington, Nevada, and Baja California (Beedy and Hamilton 1999). Tricolored blackbirds nest in colonies that can range from several pairs to several thousand pairs, depending on prey availability, the presence of predators, and level of human disturbance. This nomadic species typically nests in emergent marsh, riparian thickets, and blackberry brambles, usually with some nearby standing water or ground saturation. Open grassland and agricultural fields are typical foraging areas with nesting generally occurring from April through June.

There are seven known occurrences of tricolored blackbird within 10 miles of the site (CDFG 2003). The nearest of these occurrences is located approximately 7 miles north of the site (CDFG 2003). Blackberry thickets, marshes, and dense riparian vegetation within the project-level and programmatic-level areas represent potential nesting habitat for tricolored blackbird.

*Lawrence's Goldfinch*

The Lawrence's goldfinch (*Carduelis lawrencei*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is identified as a bird of conservation concern by the USFWS. Lawrence's goldfinch breeds in California and winters in other southwestern states and in northern Mexico. This species generally occurs along the coastal slope of central and southern California, and the foothills of the Central Valley (Zeiner et al. 1990a). Lawrence's goldfinch is present in California mostly from April through September, and occurs in a variety of habitat types near a water source, including valley-foothill hardwood, valley foothill hardwood-conifer, desert riparian, palm oasis, and pinyon-juniper (Zeiner et al. 1990a).

The CNDDB does not contain any records of Lawrence's goldfinch within 10 miles of the site (CDFG 2003). Shrubs and trees throughout the project-level and programmatic-level areas may provide suitable nesting habitat for this species.

*Colonial Nesting Water Birds*

The CNDDB tracks colonial nesting water bird rookery sites of great egret (*Ardea alba*) and great blue heron (*Ardea herodias*), among others. These species are not formally listed and protected pursuant to either the California or federal Endangered Species Acts, but are of interest to CDFG. As such, colonial water bird rookery sites are subject to CEQA review. No rookeries are present within the project-level areas, but as comprehensive surveys of the programmatic-level areas have not been conducted, no conclusions can be drawn regarding presence or absence of rookeries in those areas.

***Wildlife - Mammals***

*Yuma Myotis*

The Yuma myotis (*Myotis yumanensis*) is not listed pursuant to either the California or federal Endangered Species Acts; however, this species is currently tracked by the CDFG in the CNDDB (CDFG 2003). Yuma myotis occurs throughout California in a variety of communities including riparian, arid scrublands and deserts, and forests. This species roosts in bridges, buildings, cliff crevices, caves, mines, and trees (WBWG 2005). Yuma myotis feed primarily on emergent aquatic insects and thus forage mainly over open water or adjacent riparian vegetation (Philpott 1996). This species can form large maternity colonies in late May early June.

The CNDDB does not contain any roosting records of Yuma myotis within 10 miles of the site (CDFG 2003). Large trees, rock crevices, and abandoned buildings throughout the project-level and programmatic-level areas provide suitable roosting habitat for Yuma myotis.

*Hoary Bat*

The hoary bat (*Lasiurus cinereus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, this species is currently tracked by the CDFG in the CNDDB (CDFG 2003). Hoary bats can be distinguished from other species by a combination of its large size, frosted fur, and golden coloration around the face. This bat is widespread in California, although distribution is patchy in the southern deserts. Hoary bats are solitary roosters, concealing themselves in the foliage of both coniferous and deciduous trees. Suitable roosting habitat includes woodlands and forests with medium to large-size trees and dense foliage, to elevations up to 13,000 feet above mean sea level. This species is highly migratory, making long migrations to and from warmer winter habitats. Sexes are separated geographically throughout most of the summer range. Hoary bats feed primarily on moths, foraging in open areas or along habitat edges (Zeiner et al. 1990b).

The CNDDB does not contain any roosting records of hoary bat within 10 miles of the site (CDFG 2003). Large trees throughout the project-level and programmatic-level areas provide suitable roosting habitat for hoary bat.

*Western Red Bat*

The western bat (*Lasiurus blossevillii*) is not listed pursuant to either the California or federal Endangered Species Acts; however, this species is currently tracked by the CDFG in the CNDDB (CDFG 2003). In addition, the Western Bat Working Group has classified the western red bat in California as “imperiled or are at high risk of imperilment” (WBWG 1998). The western red bat is easily distinguished from other western bat species by its distinctive red coloration. This bat occurs from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts, and is typically associated with forested and riparian communities. This solitary species roosts in the foliage of large shrubs and trees in communities bordering forests, rivers, cultivated fields, and urban areas. They feed on a variety of insects, usually foraging in or near riparian areas. This species is a year-round resident of California; however, they do migrate seasonally with the extent of these movements being poorly understood (Shump and Shump 1982, Philpott 1996).

The CNDDB does not contain any roosting records of western red bat within 10 miles of the site (CDFG 2003). Large trees throughout the project-level and programmatic-level areas provide suitable roosting habitat for western red bat.

*Townsend's Big-Eared Bat*

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a species of special concern by the CDFG. In addition, the Western Bat Working Group has classified the Townsend’s big-eared bat in California as “imperiled or are at high risk of imperilment” (WBWG 1998). Distribution of this species is strongly correlated with the availability of caves and cave-analogue roosting habitat, including abandoned mines. Townsend's big-eared bats have also been reported to utilize buildings, bridges, rock crevices, and hollow trees as roost sites (WBWG 2005). These bats are highly sensitive to human disturbance at roosting, maternity, and hibernacula sites. This species will roost alone or in groups of 15-100 individuals. They feed primarily on moths and prefer to forage along the edge of clumps of native vegetation. Townsend's big-eared bats are year-round residents in California, and even though they hibernate during the winter, will occasionally forage during the winter months (Kunz and Martin 1982, Philpott 1996).

The CNDDB does not contain any roosting records of Townsend's big-eared bat within 10 miles of the site (CDFG 2003). Large trees, rock crevices, and abandoned buildings throughout the project-level and programmatic-level areas provide suitable roosting habitat for Townsend's big-eared bat.

*Pallid Bat*

The pallid bat (*Antrozous pallidus*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CDFG species of special concern. In addition, the Western Bat Working Group has classified the pallid bat in California as "imperiled or are at high risk of imperilment" (WBWG 1998). The pallid bat is a large buff-colored bat, with large ears and broad wings (Orr 1954). The pallid bat occurs in Oregon and Washington and throughout the southwestern United States, south into Mexico (Hermanson and O'Shea 1983). Pallid bats inhabit low elevation rocky arid deserts and canyonlands, shrub-steppe grasslands, oak woodlands, karst formations, and higher elevation coniferous forests (Philpott 1996, WBWG 2005). Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, and trees; and in various human structures such as bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings (WBWG 2005). Pallid bats are primarily insectivores and feed by gleaning prey items from the ground or from vegetation (Bell 1982).

One occurrence of pallid bat has been reported within 10 miles of the site (CDFG 2003). This occurrence is located approximately 8 miles north of the site (CDFG 2003). Large trees, rock crevices, and abandoned buildings throughout the project-level and programmatic-level areas provide suitable roosting habitat for pallid bat.

### Sensitive Vegetation Communities

Three sensitive vegetation communities (Ione chaparral, Great Valley mixed riparian forest, and northern hardpan vernal pool) are known to occur in the project region. Great Valley mixed riparian forest is present within the project-level area, adjacent to Sutter Creek, and in the vicinity of the pond in the southeastern corner of the secondary WWTP. Some of the programmatic portions of the project site are located within Ione chaparral and Great Valley riparian forest. No vernal pools have been observed within the project area to date; however, no field surveys of the programmatic-level areas have yet been conducted, so no conclusions can be drawn about the possible presence of vernal pools in the programmatic-level areas.

### Critical Habitat

The project and programmatic areas do not fall within any areas designated or proposed as critical habitat by the USFWS for any listed species. The following critical habitat units occur in the vicinity of the site (see Figure 3.2-3):

- Vernal pool fairy shrimp, vernal pool tadpole shrimp, and Sacramento Orcutt grass critical habitat (Units 14A, 9B, and 3, respectively) has been designated approximately 3 miles northwest of the site (USFWS 2006).
- California tiger salamander critical habitat (Units 3 and 4) has been designated approximately 6 miles west and 4 miles southwest, respectively, of the site (USFWS 2005).
- Succulent owl's clover (*Castilleja campestris* ssp. *succulenta*) critical habitat (Unit 1) has been designated approximately 12.5 miles southwest of the site (USFWS 2006).
- Steelhead critical habitat (North Valley Floor Hydrologic Unit) has been designated approximately 7 miles south of the site (NMFS 2005).

## 3.2.2 REGULATORY SETTING

Listed plant and animal species are protected under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA), and many of the listed birds are protected under the Migratory Bird Treaty Act (MBTA). Waters of the U.S., including wetlands, are regulated under Sections 401 and 404 of the federal Clean Water Act. CDFG Code Section 1600 regulates the alteration of streambeds. Regulations protecting biological resources are summarized below.

### Federal Regulations

#### Federal Endangered Species Act

The FESA protects plants and wildlife that are listed as endangered or threatened by the USFWS and the National Marine Fisheries Service.

Section 9 of FESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50CFR 17.3). This statute also governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of federal law (16 USC 1538).

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

Section 10 of FESA provides for issuance of incidental take permits to private parties provided a habitat conservation plan is developed.

#### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

#### Federal Clean Water Act

The purpose of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" without a permit from the USACOE. The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil

conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (U.S. EPA) also has authority over wetlands and may override a USACOE permit.

Substantial impacts to waters of the U.S. may require an individual permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board.

## State Regulations

### California Endangered Species Act

The CESA generally parallels the main provisions of the FESA, but unlike its federal counterpart, CESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill". CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with CDFG to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

### Fully Protected Species

The State of California first began to designate species as "Fully Protected" prior to the creation of the CESA and the FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, mammals, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

### Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code Sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this State". The NPPA is administered by the CDFG. The Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The CESA of 1984 (Fish and Game Code Section 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.

### California Streambed Alteration Notification/Agreement

Section 1602 of the California Fish and Game Code require that a Streambed Alteration Application be submitted to the CDFG for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFG reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFG and the applicant is the Streambed Alteration Agreement. Often, projects that require a Streambed Alteration Agreement also require a permit from the USACOE under

Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

## Local Regulations

### Amador County General Plan

The Amador County General Plan Conservation Element (Amador County 1993) covers "water, forests, soils, rivers, fisheries, wildlife, minerals, and other natural resources … , stream channels … watersheds …." The goals and policies of the Conservation Element, however, focus on the mineral resources of the County and do not cover biological resources.

### City of Ione General Plan

The City of Ione General Plan (City of Ione 2009) Conservation and Open Space element's goals and policies relevant to biological resources are listed below.

- Goal CO-1: Protect and preserve diverse wildlife and plant habitats, including habitat for special-status species.
- Policy CO-1.1: Protect rare, threatened, and endangered species and their habitats in accordance with State and federal law.
- Goal CO-2: Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout new development areas.
- Policy CO-2.1: Coordinate with relevant State and local agencies, property owners, and local interest groups to restore, enhance, and preserve creeks in and around the City of Ione. Public and private projects shall be required to avoid impacts to wetlands if feasible. If avoidance is not feasible, projects shall achieve no net loss of wetlands, consistent with State and federal regulations.
- Policy CO-2.4: Require the preservation of existing creek locations, topography, and meandering alignment.
- Goal CO-3: Preserve high-quality trees throughout the City.
- Policy CO-3.1: Conserve existing native and non-invasive trees for their historic, economic, aesthetic, educational, and environmental value.
- Policy CO-3.2: The City shall require preservation of all trees of 36 inches diameter at breast height (dbh) or greater on development sites, unless health, safety, or access requirements do not allow for preservation of such trees. All development is required to fully mitigate the removal of any trees by replanting.

## 3.2.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will have significant adverse environmental impact on biological resources if it will:

1) 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
2) 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 the U.S. Fish and Wildlife Service
3) 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

4) 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
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

## 3.2.4 IMPACTS AND MITIGATION

***Potential Impact 3.2-1: Does the project have the potential to 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?***

### Project-Level Components

Overview

The overall impacts to biological resources resulting from the project activities will be less than significant with the implementation of the specified mitigation measures. All direct impacts will occur during construction activities. Indirect impacts resulting from construction activity such as noise disturbance to birds and bats will be temporary in duration. Operation and maintenance activities will have little to no impact and will not require mitigation.

Construction and earth-moving activities for many project-level components would be contained within existing treatment ponds or existing paved areas. All riparian areas and wetlands shall be fenced prior to construction for avoidance under the guidance of a qualified biologist, per mitigation measure Biological Resources-1. Potential impacts according to specific project-level task are analyzed below.

**Biological Resources-1:** Qualified biologists shall locate and stake sensitive resources before construction activities begin, and construction fencing shall be installed to delineate those areas in the field. Monitors shall inspect all fenced areas immediately prior to construction to ensure that barrier fencing, stakes, flagging (i.e., native riparian with a dbh of 3 inches or greater), and required setback buffers are correct and maintained. Specific buffer zone distances shall be determined by the appropriate resource agencies (CDFG and USFWS). Surveys may be required to determine the presence of elderberry shrubs, obligate habitat for the federally threatened valley elderberry longhorn beetle. If any elderberry shrubs are documented outside already delineated and fenced sensitive areas, they shall be fenced and protected as well.

#### *Pond 7*

Specific impacts to biological resources as a result of construction of Pond 7 cannot be determined, as a biological resources survey was not conducted prior to construction; however, some conclusions can be reached based on a review of an aerial photograph taken in April of 1999 prior to construction of Pond 7 (AirPhoto 1999). The site appears to have been occupied primarily by annual grassland interspersed with blackberry thickets and trees. Seasonal wetlands would be difficult to observe on an aerial photograph, but no wetlands are clearly visible in the photograph. Since the 1999 photograph was taken in April when wetlands would likely be the most visible and no wetlands can be seen, it is therefore assumed that seasonal wetlands were not

present on the Pond 7 site. Elderberry shrubs are not identifiable on an aerial photograph; thus, it is unknown whether elderberry shrubs were removed during construction. Chaparral vegetation was not apparent on the aerial photograph, and does not occur elsewhere in vicinity; therefore, it is unlikely that chaparral was present prior to construction of Pond 7. No large water bodies appear to have been present within the footprint of Pond 7, so it can be assumed that riparian vegetation was absent from the Pond 7 project area

Several special status species could have potentially been present onsite based on the previously described habitats. Valley elderberry longhorn beetle could have been present if elderberry shrubs were present prior to construction of Pond 7. The annual grassland in the area may have provided nesting habitat for ground-nesting special status birds. Trees may have provided nesting habitat to a variety of special status tree-nesting birds, and roosting habitat to special status bats.

Construction of Pond 7 occurred in late August and September of 2001. The nesting bird season is February 1st through August 31st. Nesting is less common in August, but impacts to nesting birds could have occurred from construction noise and the removal of tree and grassland habitat. Impacts to Valley elderberry longhorn beetle could have occurred if elderberry shrubs were present and removed during the course of construction. Impacts to special status bats could have occurred if they were roosting in the trees that were removed.

It is unknown whether any significant impacts to biological resources actually occurred from the construction of Pond 7. Potential impacts have been described here but any estimation of perceived or actual impacts is speculative; therefore, a determination of significance cannot be made.

***Line or Partially Fill Ponds 5 and 6***

Ponds 5 and 6, already in existence and functioning as wastewater treatment ponds, are proposed to be lined with an impermeable layer or partially filled within 200 feet of Sutter Creek. The construction activities associated with this activity would occur almost entirely within the footprint of the existing ponds and are not expected to cause any direct impacts to special-status plant or animal species.

If construction activities occur during bird breeding season, there is the possibility that nesting birds (including raptors) within the riparian corridor of the creek may suffer indirect impacts. Nesting birds may be disturbed by heavy equipment operation or the presence of people within the nesting area. If maternity roosts for bats occur in nearby trees, bats and young may be indirectly affected through disturbance.

The deposition of air-borne sediment during construction has the potential to reduce respiration in elderberry shrubs, thus compromising the health of the shrubs. Elderberry shrubs are obligate host plants for the Valley elderberry longhorn beetle, which may be indirectly affected due to construction activities within or surrounding Ponds 5 and 6. Such impacts will be temporary and of short duration (during construction only).

The implementation of mitigation measures Biological Resources-2 through Biological Resources-14 would reduce all of these potentially significant impacts to a less than significant level.

> **Biological Resources-2:** A qualified biologist shall survey the project site to identify the presence of nesting birds prior to removal of onsite vegetation or site grading. If an active nest is found, CDFG shall be consulted to determine an appropriate avoidance radius. Construction within the avoidance radius shall be prohibited until a qualified biologist has determined that the nestlings have fledged and the nest is no longer active. The biologist shall have the

authority to halt or divert construction if necessary to ensure compliance with state or federal regulatory laws, including the Migratory Bird Treaty Act.

**Biological Resources-3:** If construction, demolition, or tree removal is to take place during the breeding season for raptor species (February 1 to August 31), a preconstruction survey shall be performed. If an active nest is found, CDFG shall be consulted to determine an appropriate avoidance radius. Construction within the avoidance radius shall be prohibited until a qualified biologist has determined that the nestlings have fledged and the nest is no longer active.

**Biological Resources-4:** A preconstruction survey for burrowing owls shall be conducted within 30 days prior to ground disturbance to reduce potential impacts to burrowing owls. If no owls are found, no further action is required. If owls are found, appropriate mitigation measures shall be conducted in accordance with the California Department of Fish and Game *Staff Report on Burrowing Owl Mitigation* (CDFG 1995). Avoidance of impacts includes "…no disturbance should occur within 50 meters (approx. 160 feet) of occupied burrows during the non-breeding season of September 1 through January 31 or within 75 meters (approx. 250 ft) during the breeding season of February 1 through August 31. Avoidance requires that a minimum of 6.5 acres of foraging habitat be permanently preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird. The configuration of the protected habitat shall be approved by the CDFG."

**Biological Resources-5:** No debris, soil, silt, sand, construction waste, or washings thereof, or other organic or earthen material from any construction activity shall be allowed to enter into federal and state jurisdictional waters. The project proponent shall develop a stormwater pollution prevention plan (SWPPP) to anticipate and manage for stormwater runoff during construction. The plan shall outline the use of sediment barriers and erosion control devices in order to prevent sedimentation (either directly deposited or through runoff) from entering jurisdictional waterways. Drainage and sedimentation control devices shall be routinely cleaned, maintained, and repaired prior to and during the rainy season. All repairs to these systems shall be immediately executed to minimize erosion problems.

**Biological Resources-6:** Best-management practices (BMPs) shall be developed for use during construction, and such management practices shall include the provision that revegetation and landscaping adjacent to Sutter Creek shall consist only of native trees, shrubs, and groundcover typical of Sutter Creek and its surrounding habitat.

**Biological Resources-7:** Heavy equipment staging areas shall be located in already disturbed and paved access areas greater than 150 feet from Sutter Creek or any other seasonal wetland, if possible. All fueling and maintenance of equipment shall be performed in designated staging areas.

**Biological Resources-8:** Heavy equipment brought into the site shall be power-washed prior to entry and inspected by the Environmental Monitor to ensure non-native seeds and other plant parts are not brought into the area.

**Biological Resources-9:** To control fugitive dust, soils and work areas shall be pre-watered prior to movement of heavy equipment and construction vehicles (daily or more frequently if needed).

**Biological Resources-10:** Open trenches shall be fenced with orange construction fencing and soil ramps shall be left at regular intervals to facilitate escape of trapped animals.

**Biological Resources-11:** Preconstruction biological resource surveys shall be performed to identify the location of sensitive biological resources. Preconstruction surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Sensitive resources shall be clearly mapped and marked on construction drawings or project maps before construction in these areas. An agency approved Environmental Monitor shall be required to oversee construction in such areas and enforce compliance with exclusionary zones.

**Biological Resources-12:** If construction or tree removal is to take place during the maternity roosting season for bats (April 1 to September 30), a breeding season survey shall be performed by a qualified biologist to determine the presence/absence of breeding bats in suitable nearby trees prior to activities. If bats are found during surveys, activities shall be rescheduled to take place between October 1 to March 30, or until all juvenile bats are capable of independent flight, as determined by a qualified biologist.

**Biological Resources-13:** Where construction is to occur near known or potential habitat for western pond turtle (i.e., near Sutter Creek), preconstruction surveys shall be conducted to determine the presence or absence of this species. If pond turtles are observed, a determination shall be made in consultation with CDFG as to whether or not construction would adversely impact this species and what measures shall be implemented.

**Biological Resources-14:** In areas occupied by elderberry shrubs, determinate-level surveys for Valley elderberry longhorn beetles shall be conducted. If the survey determines that the project would have an impact on elderberry shrubs, appropriate mitigation measures shall be determined in consultation with USFWS.

The continued operation of Ponds 5 and 6 would positively impact bird communities by providing an additional source of water and aquatic habitat. No adverse impacts would occur to biological resources from the operation of modified Ponds 5 and 6. The operation of Ponds 5 and 6 would positively impact the surrounding biological resources by ensuring no potential seepage of sludge material would enter Sutter Creek. Maintenance activities for the percolation ponds would include the draining and removal of wet solids once every five years per pond. These activities would be performed on a staggered schedule such that only one pond at a time would be emptied. No adverse impacts would be expected to occur to biological resources in the project area from these activities.

### *Activated Sludge System*

This system would be installed in two phases (phase one – installation, and phase two - expansion) and could be installed in one of three possible locations. The activated sludge system could be installed on the filled portions of Ponds 5 and 6, the area immediately south of Ponds 1-4, or the site of the existing tertiary WWTP. These areas are located entirely on ground that has already been disturbed for other purposes. The system would be located at least 300 feet from the riparian corridor of Sutter Creek within the matrix of wastewater treatment ponds and associated infrastructure. No direct or indirect impacts to special-status plant or animal species are anticipated as a result of installation (phase one), expansion (phase two), operation, or maintenance of the activated sludge system.

### *Close and Reclaim Ponds 1-4*

The construction activities associated with closing and reclaiming Ponds 1-4 would occur almost entirely within the existing pond basins. Direct impacts to special-status plant or animal species are not anticipated.

If construction activities occur during bird breeding season, there is the possibility that nesting birds (including raptors) within the riparian corridor of the creek may suffer indirect impacts. Nesting birds may be disturbed by heavy equipment operation or the presence of people within the nesting area. If maternity roosts for bats occur in nearby trees, bats and young may be indirectly affected through disturbance. Implementation of mitigation measures Biological Resources-2 through Biological Resources-14 would reduce these potentially significant impacts to a less than significant level. The area would be leveled with appropriate drainage features installed and the space would remain open. Little to no maintenance would be required and this element would not adversely impact biological resources near Ponds 1-4; therefore, no mitigation is necessary.

The deposition of air-borne sediment during construction has the potential to reduce respiration in elderberry shrubs, thus compromising them as habitat for the Valley elderberry longhorn beetle. Elderberry shrubs may be indirectly affected due to construction activities within or surrounding Ponds 1-4. Such impacts, if they occur, are likely to be temporary and of short duration.

Implementation of mitigation measures Biological Resources-2 through Biological Resources-14 would reduce these potentially significant impacts to a less than significant level.

### *Pipelines between the Secondary and Tertiary WWTP Facilities*

Potential impacts as a result of installation of these pipelines include disturbance of nesting birds (if construction occurs during the breeding season) or disturbance of bat maternity roosts. Other impacts, including deposition of air-borne sediment, may occur to riparian vegetation within Sutter Creek. The potential also exists for effluent and sedimentation to enter the creek if construction occurs during rainy periods. Operation and maintenance activities for the pipelines would be minimal and would not adversely impact biological resources within and adjacent to the proposed project area. These impacts would be considered less than significant after implementation of mitigation measures Biological Resources-2 through Biological Resources-14.

### *Tertiary WWTP Expansion*

The construction activities associated with expanding the existing tertiary WWTP or constructing a new tertiary WWTP adjacent to the new activated sludge system would occur either entirely within the existing paved footprint of the tertiary WWTP or at the location of the new activated sludge system, and is not expected to cause any direct impacts to special-status plant or animal species. Later expansion of a new tertiary WWTP, if required, would likely take place prior to 2017, and impacts from this expansion would be similar to the first phase of construction of the tertiary WWTP.

If construction activities occur during bird breeding season, there is the possibility that nesting birds (including raptors) within the riparian corridor of Sutter Creek south of the pond may suffer indirect impacts. Nesting birds or bats in maternity roosts may be disturbed by heavy equipment operation or the presence of people within the nesting area. Elderberry shrubs may be indirectly affected due to deposition of air-borne sediment. Implementation of mitigation measures Biological Resources-2 through Biological Resources-14 would reduce these potentially significant impacts to a less than significant level.

Operation and maintenance activities for the tertiary WWTP would also fall within and around either the paved footprint of the existing tertiary WWTP or the location of the new activated sludge system. No adverse impacts are expected to result from these activities.

### *Pond 8*

The seasonal wetland in the southwest corner of this site may serve as habitat for federally listed vernal pool branchiopods, the federally listed California tiger salamander, or western spadefoot toad (California species of special concern). The wetland area would be fenced prior to construction for avoidance under the guidance of a qualified biologist, per mitigation measure Biological Resources-1. All staging and work areas would be maintained far enough away from the wetland to ensure that no impacts to the wetland would occur. Similarly, no adverse impacts will impact the wetland during operation and maintenance activities.

Direct impacts associated with the construction of Pond 8 include the conversion of annual grassland vegetation to a detention pond, and the removal of an elderberry shrub.

The annual grassland habitat may serve as nesting habitat for a variety of special-status birds. Preconstruction nesting bird surveys would be conducted as detailed in mitigation measures Biological Resources-2, Biological Resources-3, Biological Resources-4, and Biological Resources-12, and any active nests found shall be avoided or monitored as described in these mitigation measures. Incorporation of the above mitigation measures would reduce potential impacts on special status species from Pond 8 construction to a less than significant level.

### Programmatic-Level Components

Since detailed surveys have not been conducted over most of the programmatic area, the potential effects of the programmatic-level project elements on biological resources are unknown at this time. Most of the proposed pipeline routes are located alongside existing paved and dirt roads, where special status species are less likely to occur; however, roadside ditches may provide habitat for aquatic animals (e.g., western pond turtle, western spadefoot toad) or nesting habitat for special status birds. Cemented roadside ditches located adjacent to agricultural areas may provide habitat for burrowing owls. Abandoned buildings in the vicinity of construction areas, as well as larger trees, may provide maternity roosts for special status bat species. The Ione Formation, an endemic soil type found within the City of Ione, features several rare plants restricted only to this soil type. Direct impacts to elderberry bushes may occur in areas such as Mule Creek. Irrigated pastures also represent potential foraging habitat for tricolored blackbirds, a California species of concern. Ponds or ephemeral wetlands may provide breeding habitat for California tiger salamanders and/or listed branchiopod species, depending on the duration of inundation.

Further site-specific analysis would be completed should the programmatic-level elements be pursued, and any additional necessary mitigation would be defined at the time of future environmental review under CEQA.

***Potential Impact 3.2-2: Does the project have a potential for 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 the U.S. Fish and Wildlife Service (excluding Waters of the U.S.)?***

### Project-Level Components

No permanent impacts to sensitive vegetation communities are anticipated as a result of implementation of the project-level portions of this project. Great Valley mixed riparian forest is the only sensitive community present within the proposed project area, and that community would be fenced off and avoided for the duration of the construction project as per mitigation measure

Biological Resources-1. The possibility exists for temporary, indirect impacts to occur to sensitive vegetation communities from air-borne sediment during project construction; however, implementation of mitigation measure Biological Resources-9 would reduce the temporary impact of air-borne fine particulates to a less than significant level. Impacts to sensitive natural communities as a result of project-level components are considered to be less than significant with the implementation of mitigation measures Biological Resources-1 and Biological Resources-9. Operation and maintenance activities will cause no impact to the riparian habitat located in the project area, therefore, no mitigation is required.

**Programmatic-Level Components**

Two sensitive vegetation communities are known to occur within the programmatic-level project areas: Ione chaparral and Great Valley mixed riparian forest. The northern hardpan vernal pool vegetation community is not expected to occur in any of the programmatic-level project areas. Any impacts to these riparian communities would be avoided if possible, and fences would be erected to ensure protection of these areas as per mitigation measure Biological Resources-1. If one or more of the pipelines is routed through Ione chaparral vegetation, impacts would be minimized to the extent possible by fencing around sensitive resources. Impacts, if they occur, are likely to be indirect and temporary. Impacts to sensitive natural communities as a result of programmatic-level components are expected to be less than significant; however, future environmental review would be necessary in order to make conclusions regarding the degree of impact that the programmatic-level project elements would have on biological resources.

***Potential Impact 3.2-3: Does the project have the potential to adversely affect 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?***

**Project-Level Components**

All wetlands within the project-level area, including Sutter Creek, would be avoided to the greatest extent feasible. Impacts to these wetlands would require site specific analysis and consultation with the USACOE and the RWQCB. Impacts to waters protected under Section 404 of the Clean Water Act would be less than significant with the implementation of mitigation measure Biological Resources-1, which requires the installation and monitoring of exclusion fencing and mandatory setbacks from wetland areas. Operation and maintenance activities would not adversely impact biological resources located in the wetlands near the proposed project area, therefore, no mitigation is required.

**Programmatic-Level Components**

When the construction plans and locations for any of the programmatic-level project elements have been determined, a wetland delineation and subsequent verification by the USACOE would be required in all areas likely to be either directly or indirectly impacted by the project. When acreages of impact have been determined, necessary permits would be obtained through consultation with USACOE and RWQCB. Impacts to waters protected under Section 404 due to programmatic-level components of the project may be reduced with the implementation of appropriate mitigation measures and concurrence from USACOE and RWQCB.

***Potential Impact 3.2-4: Does the project have the potential to 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?***

**Project-Level Components**

The project-level components are proposed to occur almost entirely within the footprint of the existing secondary and tertiary WWTPs. The project area contains previously disturbed areas including paved areas and currently active wastewater treatment ponds. Agricultural lands exist to the west and east of the project, and irrigated pasture to the southeast. Residential housing exists to the northeast. The wide riparian corridor of Sutter Creek bounds the southern end of the tertiary WWTP and the northern boundary of the secondary WWTP, and this corridor likely functions as a movement corridor for native fish and wildlife species. The riparian corridor would be fenced and protected during construction as per mitigation measure Biological Resources-1, so no intrusion into the corridor would take place. Any indirect impacts would be short term and related to the sound and activity of heavy machinery during project construction, which would be limited to daylight hours. The incorporation of mitigation measure Biological Resources-1 would reduce project-level impacts to migratory wildlife corridors to a less than significant level.

**Programmatic-Level Components**

The impact areas of programmatic-level components have not yet been clearly defined; thus the determination of the significance of impacts is speculative.

The installation of pipelines could have temporary impacts to movement of wildlife due to the linear nature of installation and the need for open trenches during installation. The implementation of mitigation measure Biological Resources-10 would help reduce temporary impacts due to the presence of open trenches in the project area. Migration or movement barriers would no longer be present after completion of construction.

The potential installation of Pond 9 would to occur north of Sutter Creek within an area of annual grassland that does not currently appear to serve as a wildlife corridor. No impacts to wildlife movement are expected as a result of installation of Pond 9.

The proposed construction of additional reservoirs for seasonal storage of wastewater could cause substantial impacts to movement of fish and/or wildlife species, depending on where the reservoir is built and how large it is. An assessment of impacts and mitigation to compensate for those impacts would need to be conducted when specific plans for the reservoir have been developed.

***Potential Impact 3.2-5: Does the project have the potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

**Project-Level Components**

Local ordinances are consistent with and do not exceed state and federal regulations protecting biological resources. The City of Ione's Draft General Plan contains a policy protecting native, non-invasive trees. Trees with diameters greater than 36 inches at dbh should be preserved unless their presence interferes with health, safety, or access issues for the development. Most of the project-level components are planned to occur almost entirely within previously disturbed areas, including paved areas and dedicated wastewater treatment ponds. This project description does not require the removal any trees meeting the City of Ione's size requirements or conflict with any other local policies, including tree preservation ordinances, and impacts would be less than significant.

**Programmatic-Level Components**

As with the project-level components, local ordinances are consistent with the goals of the proposed action and do not exceed state and federal regulations protecting biological resources. Most of the programmatic-level components such as pipelines are planned to occur within or

adjacent to paved or dirt roads and paved areas. The programmatic portions of this project are not anticipated to conflict with local policies, including tree preservation ordinances, and impacts would likely be less than significant.

***Potential Impact 3.2-6: Does the project have the potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

**Project-Level Components**

There are currently no HCP, NCCP, or other habitat conservation plans that cover any area within the project-level area of proposed project site. Therefore, conflicts are not anticipated, and impacts would be less than significant.

**Programmatic-Level Components**

There are currently no HCP, NCCP, or other habitat conservation plans that cover any area within the identified programmatic-level areas of proposed project site. Therefore, conflicts are not anticipated, and impacts would likely be less than significant.