Biological Resources Assessment

Sierra Pine Project

Rocklin, Placer County, California

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Date:
October 2016
Revised May 201

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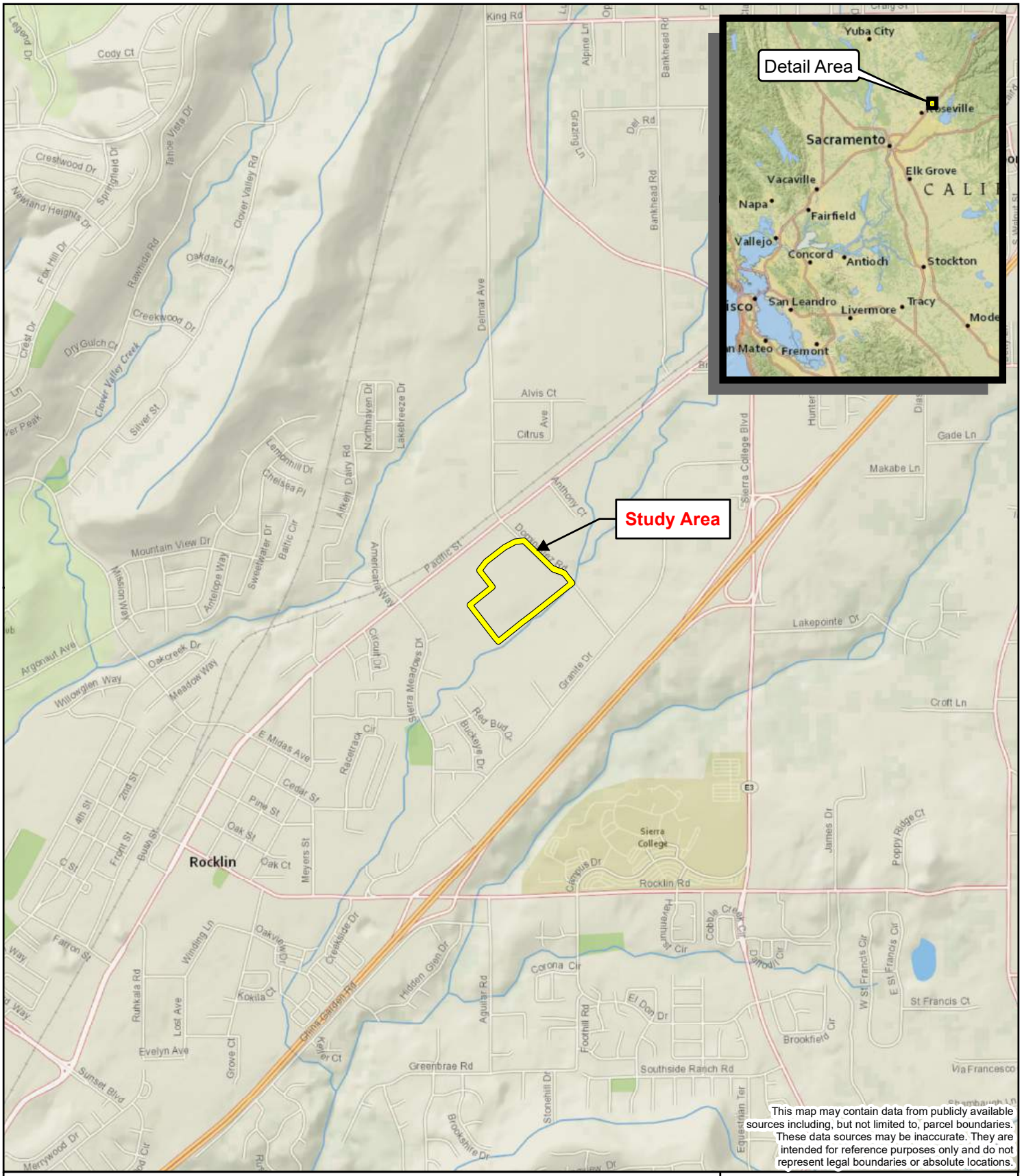
1.0 INTRODUCTION

WRA, Inc. (WRA) prepared a biological resources assessment (BRA) report on behalf of Lewis Land Development, LLC for their proposed Sierra Pine Project (Project). The proposed Project involves the development of a residential community within an approximately 28-acre site (Study Area) in the City of Rocklin, Placer County, California (Figure 1). The Study Area includes one parcel (APN: 045-021-011) on Dominguez Road that was previously in use as an industrial facility that produced fiberboard and is currently mostly barren, following completion of site remediation and cleanup activities.

The purpose of this assessment is to gather information necessary to complete a review of biological resources under the California Environmental Quality Act (CEQA). This report describes the results of the site visit, which assessed the Study Area and immediately adjacent areas for: (1) the potential to support special-status plant and wildlife species; (2) the potential presence of sensitive biological communities such as wetlands or riparian habitats; and (3) the potential presence of other sensitive biological resources protected by local, state, and federal laws and regulations.

As a result of these investigations, it was determined that no sensitive biological communities were present within the Study Area; however, a 50-foot stream setback from the adjacent Sucker Ravine to the south of the Study Area overlaps a small portion of the southeast corner of the Study Area. No special-status plant species and three special-status wildlife species have a moderate or high potential to occur within the Study Area, with most being associated with open grassland and riparian habitats. Potential impacts to biological resources within and adjacent to the Study Area were evaluated based on a Preliminary Grading and Utility Plan for the proposed Project (Burrell Consulting Group, Inc. 2016) and appropriate mitigation measures proposed.

No protocol-level presence/absence surveys were conducted as part of this assessment. Our determinations regarding the potential of the Study Area to support special-status plant and wildlife species were based primarily on the suitability of habitats within the Study Area, the proximity of known occurrences, and an on-site inspection and survey. This assessment is based on information available at the time of the study and on site conditions that were observed on September 16, 2016. A wetland assessment of potential Waters of the U.S. ("waters") subject to the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps) jurisdiction under Section 404 of the Clean Water Act (CWA), as well as any stream and riparian areas subject to California Department of Fish and Wildlife (CDFW) jurisdiction under Section 1602 of California Fish and Game Code (CFGC), was conducted concurrently with this assessment.



This map may contain data from publicly available sources including, but not limited to, parcel boundaries. These data sources may be inaccurate. They are intended for reference purposes only and do not represent legal boundaries or absolute locations.

Figure 1. Study Area Location Map

N
W E
S

Sierra Pine
Rocklin
Placer County, California

0 750 1,500 3,000
Feet

wra
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Map Prepared Date: 9/21/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

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2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that informed field investigations and analysis of potential project impacts.

2.1 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the CWA; state regulations such as the Porter-Cologne Act, the CDFW Streambed Alteration Program, and CEQA; or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

2.1.1 Waters of the United States

The Corps regulates "Waters of the United States" under Section 404 of the CWA. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology.

Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM), and herein referred to as non-wetland waters. Non-wetland waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

2.1.2 Waters of the State

The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes wetlands and waters that may not be regulated by the Corps under Section 404.

Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

2.1.3 Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a Notification of Lake or Streambed Alteration. The term “stream”, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). “Riparian” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Notification of Lake or Streambed Alteration.

2.1.4 Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2016). Sensitive plant communities are also identified by CDFW (CDFG 2003, CDFG 2007, CDFG 2009). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2014) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or United States Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

2.1.5 Local Policies, Ordinances, and Regulations

<u>City of Rocklin Oak Ordinances</u>

The City of Rocklin regulates development near streams and typically requires a minimum 50-foot setback from streams. Based on previous environmental review documents, the City will apply open space designations to all lands located within 50 feet from the edge of the bank of all intermittent streams and creeks providing natural drainage, adjacent to areas consisting of riparian habitat (City of Rocklin 2007).

Additionally, the City of Rocklin Tree Preservation Ordinance regulates both the removal of protected trees and the encroachment of construction activities into the protected zones of these trees. Protected trees include any native oak tree with a diameter at breast height (DBH) of 6 inches or greater. Heritage oaks are given special protection and are defined as native oaks having a DBH of 24 inches or greater. Impacts to protected trees would require a permit from the City and compensatory mitigation as specified by the ordinance. The mitigation requirements are complex and vary based on the site zoning, the sizes of the trees being

impacted, the proportion of trees on site being impacted, and the number of trees being impacted[1].

2.2 Special-Status Species

Plant and Wildlife Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed species and species proposed for listing. In addition, CDFW Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, USFWS Birds of Conservation Concern, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the CEQA. In addition to regulations for special-status species, most birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under this legislation, destroying active nests, eggs, and young is illegal.

Plant species included within the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory) with California Rare Plant Rank (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Very few Rank 3 or Rank 4 plant species meet the definitions of Section 1901 Chapter 10 of the Native Plant Protection Act or Sections 2062 and 2067 of the CDFW Code that outlines CESA. However, CNPS and CDFW strongly recommend that these species be fully considered during the preparation of environmental documentation relating to CEQA. This may be particularly appropriate for the type locality of a Rank 4 plant, for populations at the periphery of a species range or in areas where the taxon is especially uncommon or has sustained heavy losses, or from populations exhibiting unusual morphology or occurring on unusual substrates. A description of the CNPS Ranks is provided below in Table 1.

[1] Please refer to pages 8-11 of the City of Rocklin Oak Tree Preservation Guidelines for additional information. This document is available online at: https://www.rocklin.ca.us/civica/filebank/blobdload.asp?BlobID=2308.

Table 1. Description of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Critical Habitat

Critical habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

3.0 METHODS

On September 16, 2016, the Study Area was traversed on foot to determine (1) plant communities present within the Study Area, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats are present. Additionally, a wetland assessment to determine the potential presence or absence of streams and riparian areas was conducted concurrently with this site assessment.

Special-status species with a potential for occurrence, determined based on field visits and habitat availability, are described in Appendix A. Representative photographs of the Study Area taken during field visits are included in Appendix B.

3.1 Biological Communities

Prior to the site visit, the *Soil Survey of Placer County, California* (U.S. Department of Agriculture [USDA] 1980, California Soil Resource Lab [CSRL] 2016), was examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the Study Area. In addition, we reviewed the Rocklin USGS 7.5-minute quadrangle topographic map (U. S. Geological Survey [USGS] 2015), the National Wetlands Inventory (NWI) (USFWS 2016a), and aerial photographs of the Study Area (Google Earth 2016) to identify potential sensitive habitats and areas for further investigation during the site visit.

Following the site visit, biological communities present in the Study Area were classified based on existing plant community descriptions described in *A Manual of California Vegetation, Online Edition* (CNPS 2016a) and classified by NatureServe Comprehensive Ecological Reports (2014). However, in some cases it was necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations (see Section 2.2, above).

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations, and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.4.1 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below.

<u>Wetlands and Waters</u>

The Study Area was surveyed to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFW were present. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils. A wetland assessment to determine the potential presence or absence of Waters of the U.S. subject to EPA/Corps jurisdiction under Section 404 of the CWA, as well as stream and riparian areas subject to CDFW jurisdiction

under Section 1602 of CFGC, was conducted by WRA and any potentially jurisdictional areas found are described in the sensitive biological communities Section 4.1.2 below. The extent of CDFW jurisdiction is typically defined by the outer limit of either the top of bank, or the riparian drip line, whichever is greater. The top of bank is generally delineated based on a break in slope where the top of bank meets the surrounding ground surface.

Other Sensitive Biological Communities

The Study Area was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFW. Prior to the site visit, aerial photographs, local soil maps, the *List of Vegetation Alliances* (CDFG 2010), and *A Manual of California Vegetation, Online Edition* (CNPS 2016a) were reviewed to assess the potential for sensitive biological communities to occur in the Study Area. These communities are described in Section 4.1.2 below.

3.2 Special-Status Species

3.2.1 Literature Review

The potential for special-status species to occur in the Study Area was evaluated by first determining which special-status species have been documented in the vicinity of the Study Area through a literature and database search. Database searches for known occurrences of special-status species focused on the Rocklin USGS 7.5-minute quadrangle and the eight surrounding quadrangles including Auburn, Citrus Heights, Clarksville, Folsom, Gold Hill, Lincoln, Pilot Hill, and Roseville. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Study Area:

- California Natural Diversity Database (CNDDB) records (CDFW 2016)
- USFWS quadrangle species lists (USFWS 2016b)
- CNPS Inventory records (CNPS 2016b)
- Consortium of California Herbaria (CCH 2016)
- CDFG publication “California Bird Species of Special Concern” (Shuford and Gardali 2008)
- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFW and University of California Press publication “California Amphibian and Reptile Species of Special Concern” (Thomson et al. 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins and McGinnis 2012)
- Fairy Shrimps of California’s Puddles, Pools and Playas (Eriksen and Belk 1999)
- University of California at Davis Information Center for the Environment Distribution Maps for Fishes in California (2016)
- National Marine Fisheries Service Distribution Maps for California Salmonid Species (2013)

Plants were identified using *The Jepson Manual: Vascular Plants of California 2nd Edition* (Baldwin et al. 2012), to the taxonomic level necessary to determine rarity. Plant nomenclature follows Baldwin et al. (2012) and subsequent revisions by the Jepson Flora Project (2016), except where noted. Because of recent changes in classification for many of the taxa treated by Baldwin et al. and the Jepson Flora Project, relevant synonyms are provided in brackets. For cases in which regulatory agencies, CNPS, or other entities base rarity on older taxonomic treatments, precedence was given to the treatment used by those entities.

3.2.2 Site Assessment

Habitat conditions were assessed and were used to evaluate the potential for presence of special-status species. The potential for each special-status species to occur in the Study Area was then evaluated according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

The site assessment is intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Study Area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats.

For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described in Section 4.5.1 and 5.0.

4.0 SITE DESCRIPTION AND RESULTS

The Study Area is located in the eastern quadrant of the City of Rocklin, Placer County, approximately one mile northeast of the downtown area (Figure 1). The approximately 28-acre Study Area had been developed by Sierra Pine for the production of medium density fiberboard for cabinets, furniture, wall panels, and molding. The original production line was built in 1975 and was upgraded in 1999 for the production of thin medium density fiberboard for doors and heavy duty shipping crates. The site was fully used for industrial purposes and, at present, the buildings and facilities have been demolished and remediation activities completed. As a result of these uses, the potential for significant biological resources is minimal. Nonetheless, a full examination of the Study Area was undertaken as well as an investigation of any sensitive resources adjacent to Study Area.

4.1 On-Site and Surrounding Land Use

The Study Area is bordered to the north, east, and west by industrial and commercial development, and to the south by a riparian corridor associated with a perennial drainage called Sucker Ravine. The Study Area consists of previously developed and/or disturbed land that is currently mostly barren from recent site remediation and cleanup activities.

4.2 Topography and Soils

The topography of the Study Area is generally flat with average slopes of less than 1 percent. Elevations are highest in the northeast portion of the Study Area (approximately 305 feet above mean sea level) and lowest in the southwest (approximately 290 feet above mean sea level). The Soil Survey of Placer County, Western Part (USDA 1980, CSRL 2016) indicates that the Study Area includes three native soil-mapping units, including soils that are part of two named soil series and two variants of the xerofluvents mapping unit (Figure 2). The majority of the Study Area has been significantly altered as a result of remediation activities (see photographs in Appendix B) and little to no native topsoil remains.

The Study Area's soil mapping units are illustrated in Figure 2 and include Cometa-Ramona sandy loams, 1 to 5 percent slopes; Xerofluvents, frequently flooded; and Xerofluvents, occasionally flooded. Xerofluvents consists of cut and fill areas. All the soil mapping units within the Study Area are considered hydric (USDA 2015). The soil series that make up these mapping units are described below. No soil series description exists for Xerofluvents.

Cometa Series. The Cometa Series consists of moderately deep sandy loam soils formed in alluvium from granitic rocks located on terraces at elevations ranging from 20 to 600 feet (CSRL 2016, USDA 1980). These soils are moderately well to well drained with slow to medium runoff, and very slow permeability. Utilization includes rice, vineyards, orchards, dry-farmed grains, and livestock grazing. Annual grasses and forbs comprise the native and naturalized vegetation (USDA 1980).

Ramona Series. The Ramona Series consists of moderately deep loamy soils formed in alluvium of granitic rock located on terraces at elevations ranging from 250 to 3500 feet (CSRL 2016, USDA 1980). These soils are well drained with slow to rapid runoff, and moderately slow permeability. Native and naturalized vegetation consists of annual grasses, forbs, and chamise (*Adenostoma fasciculatum*), and utilization includes grain and hay production, pasture, irrigated citrus, olive orchards, and deciduous fruits (USDA 1980).

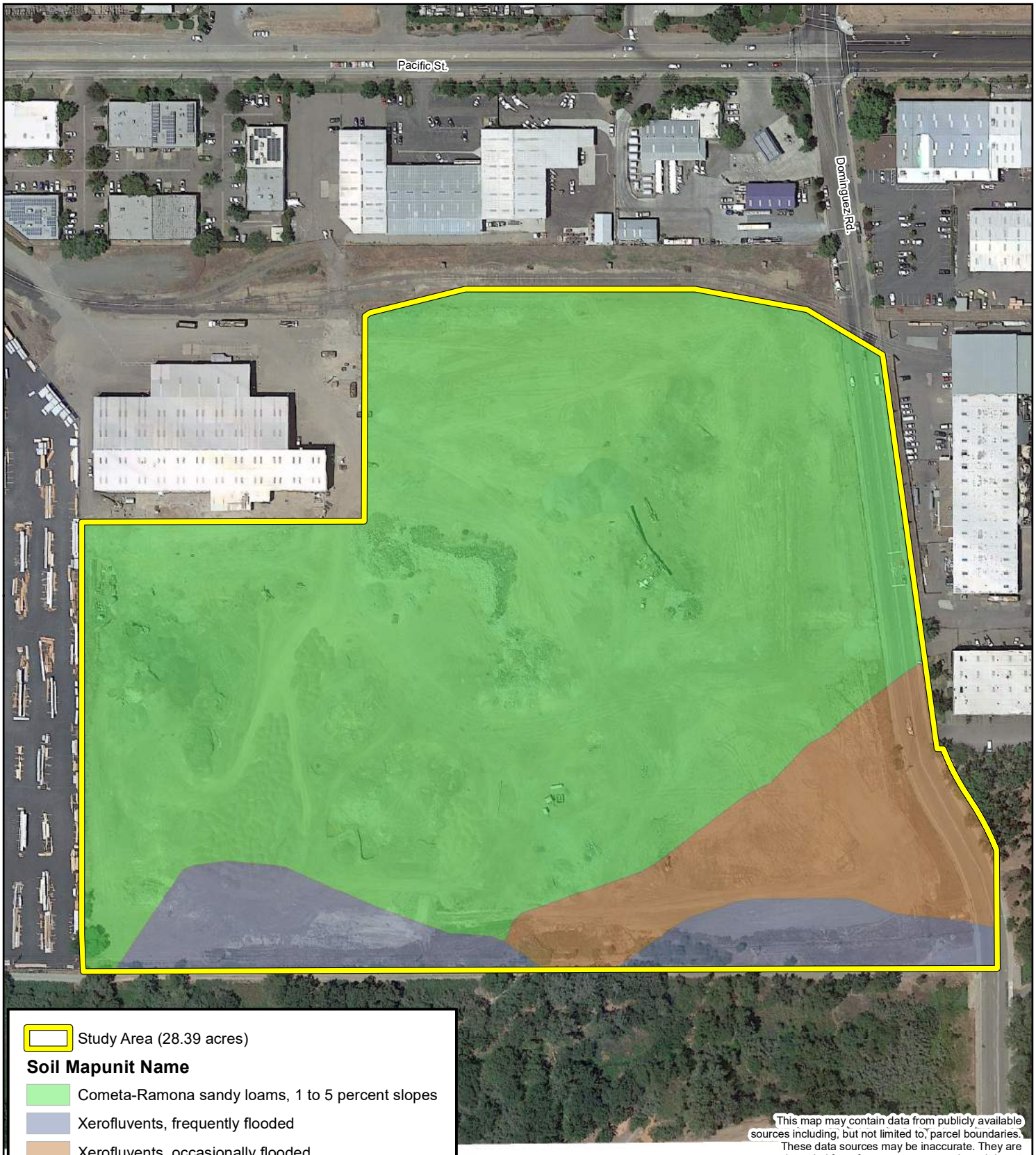

Figure 2. Soils Map

Sierra Pine
Rocklin,
Placer County, California

0 100 200 400 Feet

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Map Prepared Date: 9/21/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, SSURGO

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4.3 Climate and Hydrology

Precipitation falls predominantly as rainfall with an annual average of 36.51 inches (USDA 2016). Fog is common in the Study Area with low-lying fall and winter convection, or "tule" fog. The Study Area is entirely within the Lower American River watershed (HUC 18020161). No drainages exist within the Study Area and Sucker Ravine is the closest drainage to the Study Area, located approximately 20 to 180 feet from the southern boundary of the Study Area. Sucker Ravine is an unnamed blue-dashed line stream on the Rocklin USGS 7.5-minute quadrangle (USGS 2015) and generally supports perennial flows.

4.4 Biological Communities

Table 2 summarizes the area of the only community type observed in the Study Area which is best described as "developed/disturbed areas" (Figure 3). No sensitive biological communities were observed within the Study Area.

Table 2. Summary of Biological Communities in the Study Area

Community Type	Area (acres)
Non-Sensitive	
Developed/disturbed	28.39
Study Area Total	28.39

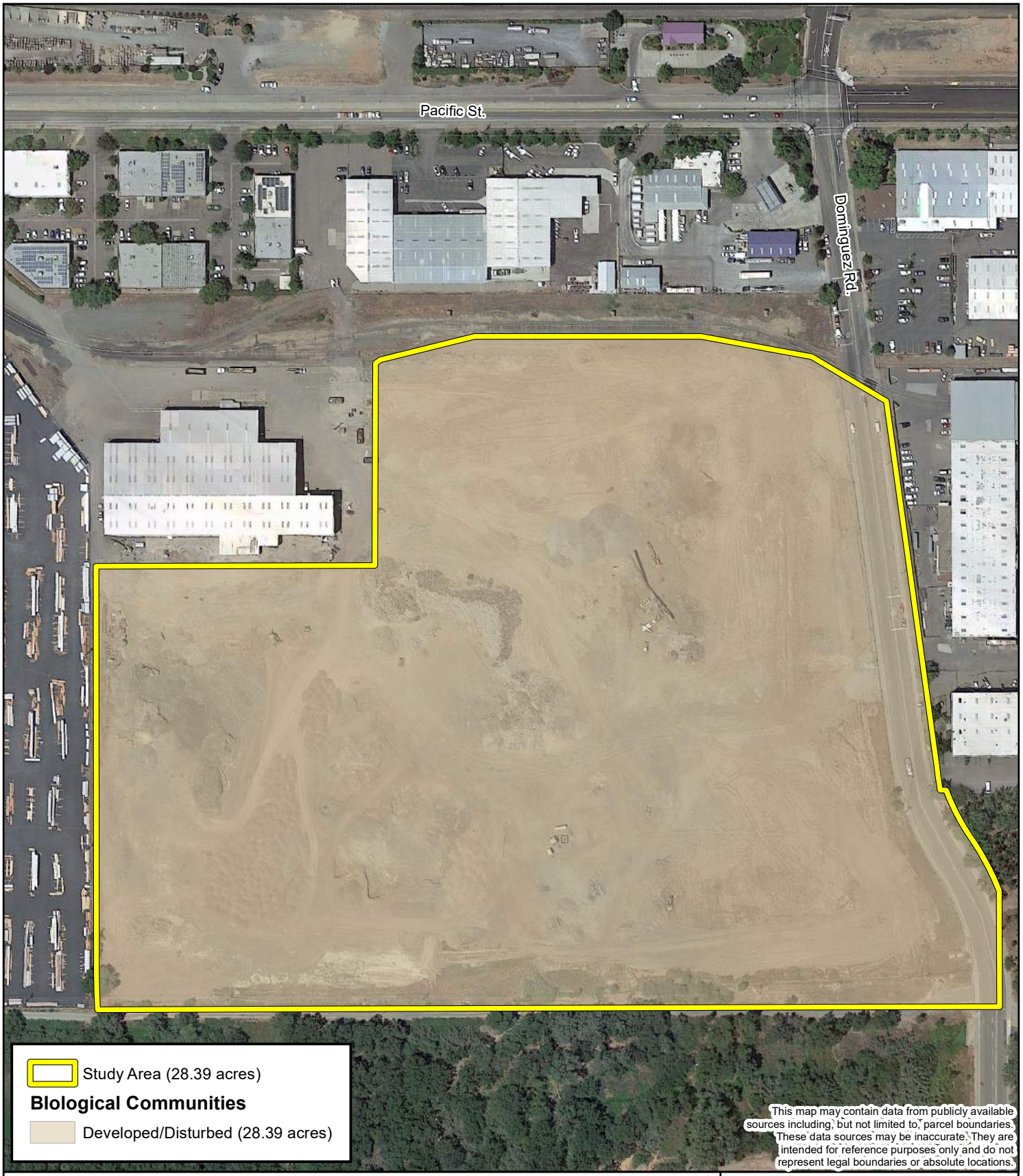

Figure 3. Biological Communities

Sierra Pine
Rocklin,
Placer County, California

0 100 200 400 Feet

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Map Prepared Date: 9/21/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, SSURGO

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4.4.1 Non-sensitive Biological Communities

Disturbed/developed land. The Study Area consists of a vacant lot that formerly supported industrial timber processing facilities. Portions of the property contain stockpiles of soil and/or graded areas where former industrial buildings recently underwent a decommissioning process that included demolition, soil removal and remediation, grading, and deconstruction of old facilities. The substrate within this community is moderately to extremely disturbed and is composed of a mix of native and non-native soil types.

Vegetative cover is sparse within this area and is generally dominated by non-native grasses and forbs including stinkwort (*Dittrichia graveolens*), a non-native noxious weed rated by the California-Invasive Plant Council (Cal-IPC; 2016) as having "moderate" potential to cause negative ecological impacts. Other species observed within this community include slim oat (*Avena barbata*, Cal-IPC "moderate"), yellow star thistle (*Centaurea solstitialis*, Cal-IPC "high"), seaside barley (*Hordeum marinum*, Cal-IPC "moderate").

Some scattered native trees and shrubs were observed along the southern portion of the Study Area including several small (<6" DBH) valley oaks (*Quercus lobata*), narrowleaf willows (*Salix exigua*), and one large Goodding's black willow (*Salix gooddingii*). These trees generally were located occurred along the southern perimeter and were too sparse and scattered within the disturbed/developed area to meet cover class requirements to be considered an alliance. Additionally, powerlines run along the southern fence line and are associated with an existing PG&E easement. On the southern side of the fence line, a gravel sewer access road exists that parallels Sucker Ravine.

4.4.2 Sensitive Biological Communities

No sensitive biological communities exist within the Study Area. Riparian habitat associated with Sucker Ravine occurs south of the Study Area, and is separated from the Study Area by a gravel path. The associated top of bank of Sucker Ravine ranged from approximately 20 feet from the Study Area in the southeast corner to 180 feet from the Study Area in the southwest corner. The City of Rocklin has stream setback requirements for activities that occur within 50 feet of the top of bank of streams. A portion of the southeast corner of the Study Area occurs within 50 feet from the top of bank of Sucker Ravine and therefore this area could be regulated under the City policy. Figure 4 depicts the extent of 50-foot stream setback within the Study Area.

4.5 Special-Status Species

4.5.1 Special-Status Plant Species

Based on a review of the resources databases listed in Section 3.2.1, 31 special-status plant species have been documented in the vicinity of the Study Area, of which six occur within a five-mile radius of the Study Area (Appendix A, Figure 5). No special-status plant species have a moderate or high potential to occur in the Study Area. Species documented to occur in the vicinity of the Study Area are unlikely or have no potential to occur due to one or more of the following factors:

- The species has a very limited range of endemism and has never been observed near the Study Area;

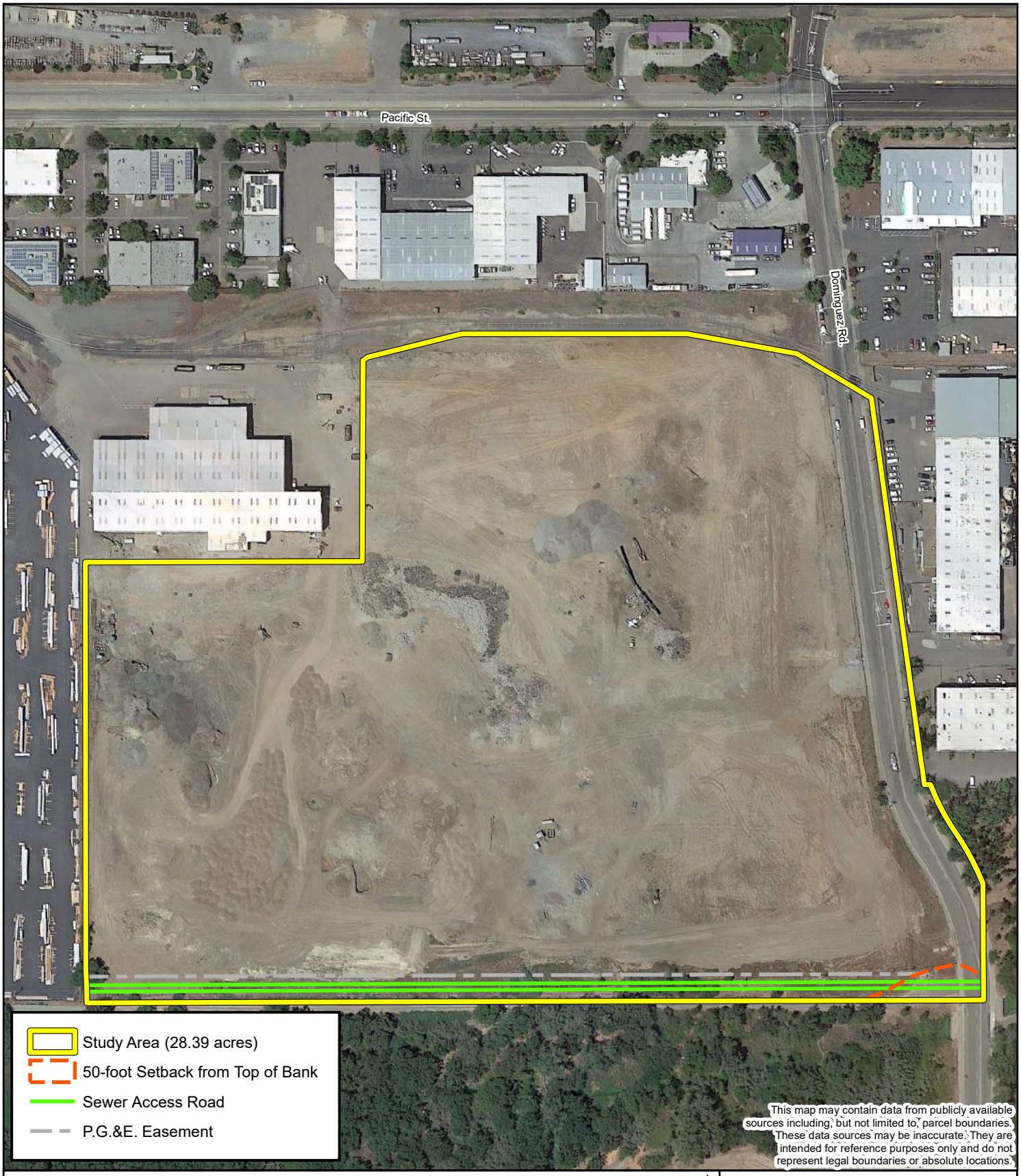

Figure 4. 50-Foot Stream Bank Setback

Sierra Pine
Rocklin,
Placer County, California

0 100 200 400 Feet

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Map Prepared Date: 9/21/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, SSURGO

Path: L:\Acad 2000 Files\24000\24323-10\GIS\ArcMap\StreamSetback.mxd

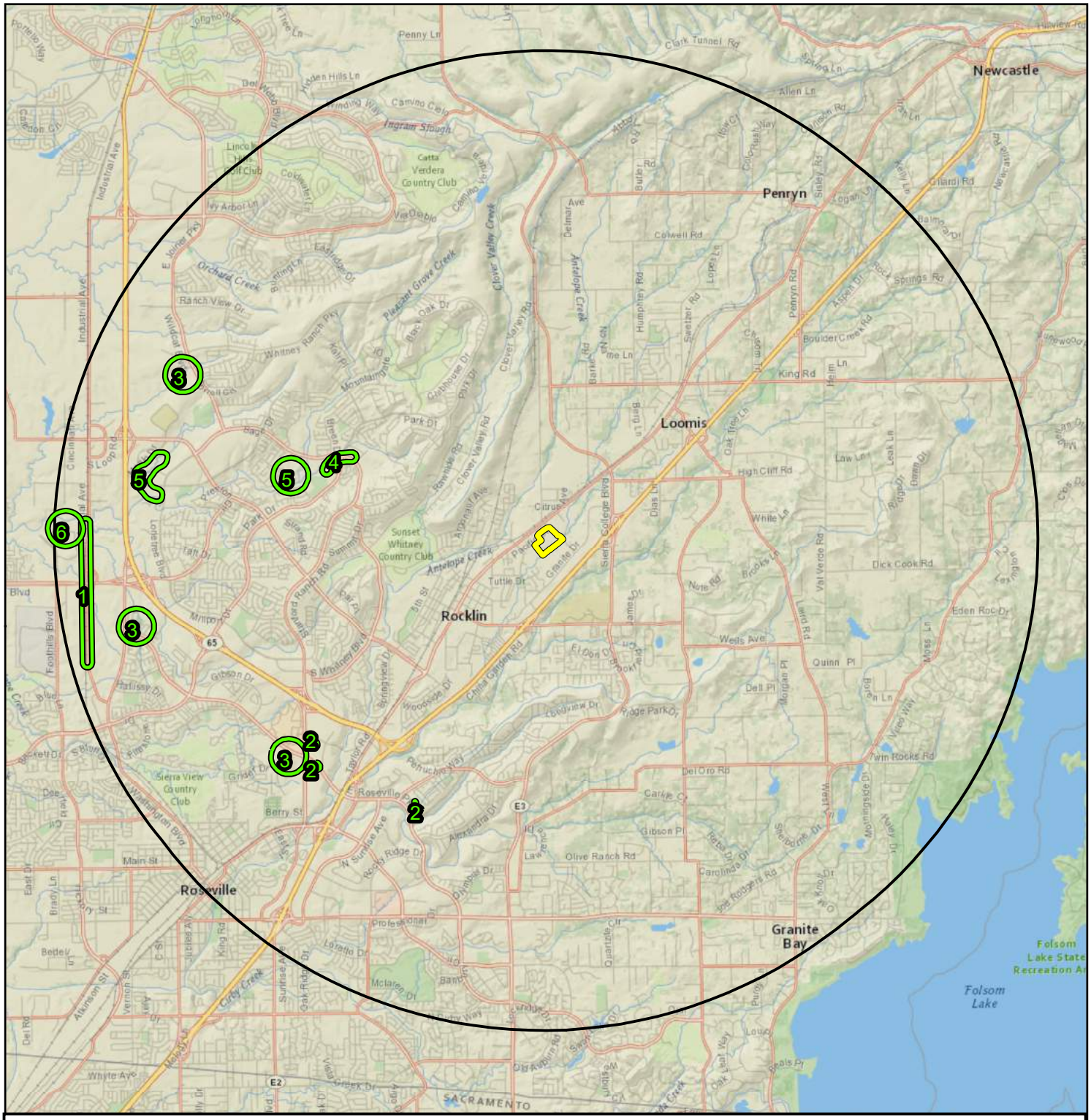


Figure 5. Special-Status Plant Species
Within a 5-Mile Radius of the Study Area

Sierra Pine
Rocklin,
Placer County, California

0 0.5 1 2 Miles

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 9/19/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, CNDDB

Path: L:\Acad 2000 Files\24000\24323-10\GIS\ArcMap\CNDDB_Plants.mxd

- Plant species commonly associated with the special-status species, and which indicate the presence of suitable, intact habitat, are absent from the Study Area;
- Specific edaphic characteristics, such as soil derived from serpentine or volcanic, are absent from the Study Area;
- Specific hydrologic characteristics are absent from the Study Area;
- Very unique pH characteristics, such as alkali scalds or acidic coniferous forest, are absent from the Study Area; and,
- The Study Area is highly disturbed and lacks native habitat types.

4.5.2 Special-Status Wildlife Species

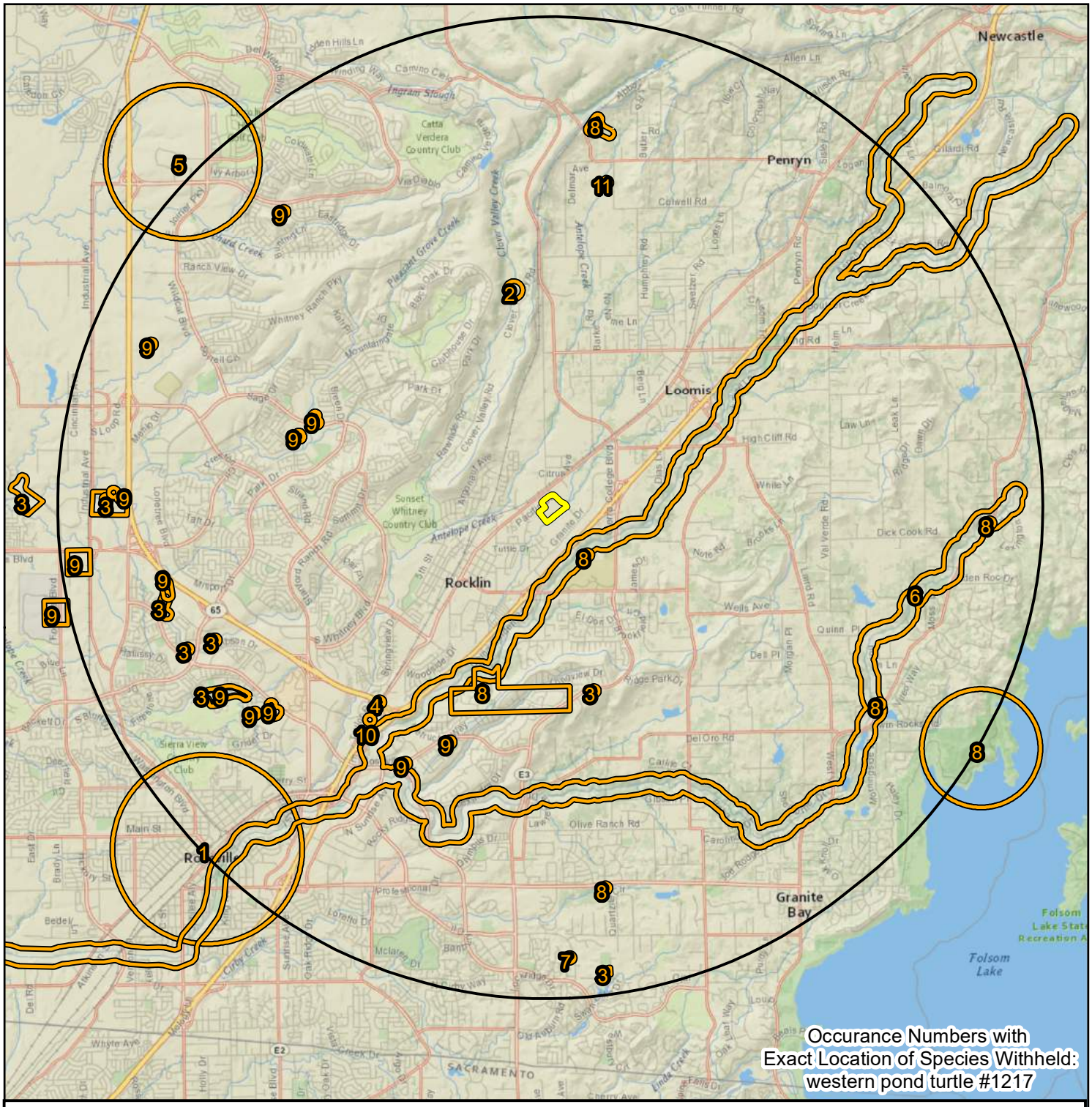
Based upon a review of the resources databases listed in Section 3.2.1, 49 special-status wildlife species have been recorded in the vicinity of the Study Area, and 11 have been documented in the CNDDB (Figure 6; CDFW 2016). Appendix A summarizes the potential for each of these species to occur within the Study Area. Three special-status species have a moderate or high potential to occur within the Study Area, but have not been observed on site. Special-status wildlife species that have the potential to occur in the Study Area are discussed below. The remaining 46 species are unlikely or have no potential to occur in the Study Area for one or more of the following reasons:

- The Study Area is outside of the known or historical range of the species;
- The Study Area lacks suitable burrows or breeding habitat;
- Grassland and wetland habitats are not present in the Study Area;
- No aquatic habitat is present within the Study Area; and,
- There are barriers to dispersal that make it unlikely for the species to occur on-site.

<u>Special-status Wildlife Species with the Potential to Occur in the Study Area</u>

Nuttall's woodpecker (*Picoides nuttallii*). USFWS Bird of Conservation Concern. Moderate Potential. Nuttall's woodpecker, common in much of its range, is a year-round resident throughout most of California west of the Sierra Nevada. Typical habitat is oak or mixed woodland, and riparian areas (Lowther 2000). This species forages on a variety of arboreal invertebrates. Nesting occurs in tree cavities, principally those of oaks and larger riparian trees. Although habitat within the Study Area contains only one large tree, this species has the potential to breed in this tree due to the adjacent riparian habitat associated with Sucker Ravine.

Loggerhead shrike (*Lanius ludovicianus*). CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential. Loggerhead shrike is a year-round resident and winter visitor in lowlands and foothills throughout California. This species is associated with open country with short vegetation and scattered trees, shrubs, fences, utility lines and/or other perches. Although they are songbirds, shrikes are predatory and forage on a variety of invertebrates and small vertebrates. Captured prey items are often impaled for storage purposes on suitable substrates, including thorns or spikes on vegetation, and barbed wire fences. Nests in trees and large shrubs; nests are usually placed three to ten feet off the ground (Shuford and Gardali 2008). Foraging habitat is available within the Study Area and suitable nesting habitat occurs in the few scattered trees located on and immediately adjacent to the Study Area. This species has been frequently documented in the region (eBird 2016).



Study Area
5 Mile Boundary
Wildlife Species

Wildlife Species

1, an andrenid bee
2, California black rail
3, California linderiella
4, purple martin
5, Ricksecker's water scavenger beetle
6, steelhead - Central Valley DPS
7, tricolored blackbird
8, valley elderberry longhorn beetle
9, vernal pool fairy shrimp
10, western spadefoot
11, white-tailed kite

Figure 6. Special-Status Wildlife Species
Within a 5-Mile Radius of the Study Area

Sierra Pine
Rocklin,
Placer County, California

0 0.5 1 2 Miles

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 10/3/2016
Map Prepared By: fhourigan
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA, SSURGO

Path: L:\Acad 2000 Files\24000\24323-10\GIS\ArcMap\CNDDB_Wildlife.mxd

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with plant species or specific vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges; nests trees are highly variable in size, structure, and immediate surroundings (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. Foraging habitat is available within the Study Area; nesting habitat is limited to the sole large tree within the Study Area, but adjacent trees may also support nesting. This species has been documented in the region (CDFW 2016).

5.0 SUMMARY AND RECOMMENDATIONS

The site is heavily disturbed as a result of past industrial activities and more recent demolition and remediation activities. No sensitive biological communities were identified within the Study Area; however a 50-foot stream setback from the adjacent Sucker Ravine overlaps a small portion of the southeast corner of the Study Area. No special-status plant species and 3 special-status wildlife species have a moderate or high potential to occur within the Study Area, with most being associated with open grassland and riparian habitats.

Potential impacts to sensitive biological communities and special-status species within the Study Area were evaluated based on a Preliminary Grading and Utility Plan for the proposed Project (Burrell Consulting Group, Inc. 2016). The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to these species and sensitive habitats.

5.1 Sensitive Biological Communities

Most of the Study Area is comprised of developed/disturbed areas, with scattered ruderal vegetation that is not considered sensitive biological communities. While no sensitive biological communities were observed within the Study Area, a City-required 50-foot stream setback from the Sucker Ravine top of bank overlaps the southwest corner of the Study Area. This area, may be required to have an open space designation by the City and development within this zone could be restricted. However, current project plans avoid development within the area of the City-required 50-foot stream setback and therefore, no impacts are anticipated from the proposed project.

5.1.1 Wetlands and Waters

A wetland assessment was conducted in the Study Area in conjunction with the site visit, and no potentially jurisdictional wetlands or non-wetland waters were identified within the Study Area. Therefore, no impacts to wetlands or non-wetland waters are anticipated as part of this project. No permits would be required and no mitigation measures would apply if development within the 50-foot stream setback is avoided.

5.1.2 Riparian Vegetation

An assessment of areas potentially subject to CDFW jurisdiction under Section 1602 of the CFGC was conducted in the Study Area in conjunction with the site visit, and no jurisdictional riparian habitats were identified within the Study Area. All riparian habitats adjacent to the Study Area are located outside of the project footprint. Therefore, no impacts to riparian vegetation are anticipated as part of this project and no permits or associated mitigation would be required.

5.1.3 Protected Trees

The removal of native oak trees is regulated by the City of Rocklin Oak Tree Preservation Ordinance. Trimming and/or removal of valley oak trees may be necessary to accommodate proposed grading and project development. If project-related removal, significant pruning, and/or grading within the protected zone (generally 1.5 times the length of the dripline) of one or more native oak trees would occur, the following mitigation measures may be required:

- A tree permit from the City of Rocklin is required for removal of any native oak tree with a DBH of 6 inches or greater. A grading permit from the City of Rocklin is required for

any ground disturbance within the protected zone of any native oak tree. Additional tree protection, tree preservation, and tree replacement measures as per the City of Rocklin Oak Tree Preservation Ordinance.

- An arborist survey and report is recommended, and may be required per the City of Rocklin, if any project related tree removal, tree pruning, or grading within the protected zone of any protected tree is proposed.

5.2 Special-Status Plant Species

No special-status plant species have moderate to high potential for occurrence in the Study Area. No project related impacts to special-status plant species or habitats that could support special-status plant species are anticipated. Consequently, no further actions are recommended for special-status plant species.

5.3 Special-Status Wildlife Species

There are three special-status wildlife species with a moderate or high potential for occurrence. Special-status wildlife species with potential for occurrence and recommended avoidance measures are discussed below.

5.3.1 Special-Status and Non-Special-Status Nesting Birds

This assessment determined that three special-status bird species have the potential to occur within the Study Area. Nuttall's woodpecker, loggerhead shrike, and white-tailed kite may use trees within the Study Area or in immediately adjacent habitats for nesting. A wide variety of non-special-status bird species that receive baseline protection under the MBTA and CDFW codes may also nest within the Study Area. To the fullest extent feasible, it is recommended that tree removal within the Study Area occur outside of the general bird nesting season (September 1 through January 31). If tree removal is to occur during the general nesting season (February 1 through August 31), pre-construction nesting bird surveys should be conducted in suitable nesting trees on-site within 14 days of the initiation of these activities to avoid disturbance to active nests, eggs, and/or young. All active nests found during the survey should be protected by a no-disturbance buffer until all young from each nest fledge or the nest otherwise becomes inactive. The size of each buffer should be determined by a qualified biologist, and may require consultation with the CDFW; buffers are typically a minimum of 50 feet for non-special-status birds and may be much larger for special-status raptor species (up to 0.25 mile).

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Appendix A

Potential for Special-Status Species to Occur in the Study Area

Appendix A. Potential for special-status plant and wildlife species to occur in the Study Area. List compiled from the U.S. Fish and Wildlife Service (USFWS) Species Lists (2016b), and California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2016) for the Rocklin, Lincoln, Gold Hill, Auburn, Roseville, Pilot Hill, Citrus Heights, Folsom, and Clarksville USGS 7.5' quadrangles, a review of historical and current satellite imagery via Google Earth (2016) and a review of other CDFW lists, and publications (Shuford and Gardali 2008, Thompson et al. 2016, Zeiner et al. 1990, and Jameson and Peters 2004).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Plants				
Jepson's onion *Allium jepsonii*	Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest/serpentine or volcanic. Elevation ranges from 980 to 4330 feet (300 to 1320 meters). Blooms Apr-Aug.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or serpentine or volcanic substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Sanborn's onion *Allium sanbornii var. sanbornii*	Rank 4.2	Chaparral, cismontane woodland, lower montane coniferous forest/usually serpentine, gravelly. Elevation ranges from 850 to 4950 feet (260 to 1510 meters). Blooms May-Sep.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
big-scale balsamroot *Balsamorhiza macrolepis*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine. Elevation ranges from 300 to 5100 feet (90 to 1555 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or serpentine or volcanic substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Brewer's calandrinia *Calandrinia breweri*	Rank 4.2	Chaparral, coastal scrub/sandy or loamy, disturbed sites and burns. Elevation ranges from 30 to 4000 feet (10 to 1220 meters). Blooms (Jan), Mar-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral or coastal habitats. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Stebbins' morning-glory *Calystegia stebbinsii*	FE, SE, Rank 1B.1	Chaparral (openings), cismontane woodland/gabbroic or serpentine. Elevation ranges from 610 to 3580 feet (185 to 1090 meters). Blooms Apr-Jul.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
chaparral sedge *Carex xerophila*	Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest, on serpentine or gabbroic substrates. Elevation ranges from 1,440 – 2,500 feet. Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or serpentine or gabbroic substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Pine Hill ceanothus *Ceanothus roderickii*	FE, SR, Rank 1B.1	Chaparral, cismontane woodland/serpentine or gabbroic (nutrient-deficient forms of gabbro-derived soils characterized by low conc. Elevation ranges from 800 to 3580 feet (245 to 1090 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Red Hills soaproot *Chlorogalum grandiflorum*	Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest/serpentine, gabbroic and other soils. Elevation ranges from 800 to 4070 feet (245 to 1240 meters). Blooms May-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
hispid bird's-beak *Chloropyron molle ssp. hispidum*	Rank 1B.1	Meadows and seeps, playas, valley and foothill grassland/alkaline. Elevation ranges from 0 to 510 feet (1 to 155 meters). Blooms Jun-Sep.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as meadows and seeps, playas, or alkaline grassland. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae*	Rank 4.2	Chaparral, cismontane woodland, lower montane coniferous forest/often roadcuts. Elevation ranges from 250 to 3000 feet (75 to 915 meters). Blooms May-Jul.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitat. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
streambank spring beauty *Claytonia parviflora ssp. grandiflora*	Rank 4.2	Cismontane woodland/rocky. Elevation ranges from 820 to 3940 feet (250 to 1200 meters). Blooms Feb-May.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as woodland or rocky substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Bisbee Peak rush-rose *Crocanthemum suffrutescens*	Rank 3.2	Chaparral/often gabbroic or lone soil; often burned or disturbed areas. Elevation ranges from 250 to 2200 feet (75 to 670 meters). Blooms Apr-Aug.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, or serpentine or gabbroic substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
dwarf downingia *Downingia pusilla*	Rank 2B.2	Valley and foothill grassland (mesic), vernal pools. Elevation ranges from 0 to 1460 feet (1 to 445 meters). Blooms Mar-May.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as grassland or vernal pools. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Jepson's woolly sunflower *Eriophyllum jepsonii*	Rank 4.3	Chaparral, cismontane woodland, coastal scrub/sometimes serpentine. Elevation ranges from 660 to 3360 feet (200 to 1025 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and scrub, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Pine Hill flannelbush *Fremontodendron decumbens*	FE, SR, Rank 1B.2	Chaparral, cismontane woodland/gabbroic or serpentine, rocky. Elevation ranges from 1390 to 2490 feet (425 to 760 meters). Blooms Apr-Jul.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral and woodland, nor does it contain serpentine or rocky substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
stinkbells *Fritillaria agrestis*	Rank 4.2	Chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland/clay, sometimes serpentine. Elevation ranges from 30 to 5100 feet (10 to 1555 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and grassland habitats, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Butte County fritillary *Fritillaria eastwoodiae*	Rank 3.2	Chaparral, cismontane woodland, lower montane coniferous forest (openings)/sometimes serpentine. Elevation ranges from 160 to 4920 feet (50 to 1500 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
El Dorado bedstraw *Galium californicum ssp. sierrae*	FE, SR, Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest/gabbroic. Elevation ranges from 330 to 1920 feet (100 to 585 meters). Blooms May-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	SE, Rank 1B.2	Marshes and swamps (lake margins), vernal pools/clay. Elevation ranges from 30 to 7790 feet (10 to 2375 meters). Blooms Apr-Aug.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as marshes, swamps, or vernal pools. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	Rank 1B.2	Valley and foothill grassland (mesic). Elevation ranges from 100 to 750 feet (30 to 229 meters). Blooms Mar-May.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as mesic grasslands. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Red Bluff dwarf rush *Juncus leiospermus var. leiospermus*	Rank 1B.1	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools/vernally mesic. Elevation ranges from 110 to 4100 feet (35 to 1250 meters). Blooms Mar-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and vernally mesic grasslands or meadows. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
dubious pea *Lathyrus sulphureus var. argillaceus*	Rank 3	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest. Elevation ranges from 490 to 3050 feet (150 to 930 meters). Blooms Apr-May.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as woodland and forested habitats. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
legenere *Legenere limosa*	Rank 1B.1	Vernal pools. Elevation ranges from 0 to 2890 feet (1 to 880 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as vernal pools. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Humboldt lily *Lilium humboldtii ssp. humboldtii*	Rank 4.2	Chaparral, cismontane woodland, lower montane coniferous forest/openings. Elevation ranges from 300 to 4200 feet (90 to 1280 meters). Blooms May-Jul.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
pincushion navarretia *Navarretia myersii ssp. myersii*	Rank 1B.1	Vernal pools/often acidic. Elevation ranges from 70 to 1080 feet (20 to 330 meters). Blooms Apr-May.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as vernal pools. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
adobe navarretia *Navarretia nigelliformis ssp. nigelliformis*	Rank 4.2	Valley and foothill grasslandvernally mesic, vernal poolssometimes/clay, sometimes serpentine. Elevation ranges from 330 to 3280 feet (100 to 1000 meters). Blooms Apr-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as mesic grasslands or vernal pool habitats, or serpentine substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Sacramento Orcutt grass *Orcuttia viscida*	FE, SE, Rank 1B.1	Vernal pools. Elevation ranges from 100 to 330 feet (30 to 100 meters). Blooms Apr-Jul (Sep).	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as vernal pools. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
Layne's ragwort *Packera layneae*	FT, SR, Rank 1B.2	Chaparral, cismontane woodland/serpentine or gabbroic, rocky. Elevation ranges from 660 to 3560 feet (200 to 1085 meters). Blooms Apr-Aug.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats, or rocky substrates. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Sanford's arrowhead *Sagittaria sanfordii*	Rank 1B.2	Marshes and swamps (assorted shallow freshwater). Elevation ranges from 0 to 2130 feet (0 to 650 meters). Blooms May-Oct (Nov).	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as marshes and swamps. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
oval-leaved viburnum *Viburnum ellipticum*	Rank 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 710 to 4590 feet (215 to 1400 meters). Blooms May-Jun.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.
El Dorado County mule ears *Wyethia reticulata*	Rank 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest/clay or gabbroic. Elevation ranges from 610 to 2070 feet (185 to 630 meters). Blooms Apr-Aug.	**Unlikely.** The Study Area does not contain suitable habitat to support this species such as chaparral, woodland, and forested habitats. Additionally, the Study Area contains highly disturbed vegetation and soils that preclude this species from having potential to occur.	No additional measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Mammals				
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Unlikely**. The historical disturbance of the Study Area, proximity to development, and lack of connectivity to suitable and occupied habitat likely precludes presence of this species within the Study Area.	No further actions are recommended for this species.
Ringtail (ring-tailed cat) *Bassariscus astutus*	CFP	Is widely distributed throughout most of California, but absent from some portions of the Central Valley and northeastern California. The species is nocturnal, primarily carnivorous and is associated with a mixture of dry forest and shrubland in close association with rocky areas and riparian habitat, using hollow trees and cavities for shelter. Usually not found more than 1 km (0.6 mi) from permanent water.	**Unlikely.** The historical disturbance of the Study Area, proximity to development, and fragmented nature of the surrounding areas makes this species unlikely to occur within the Study Area. The Study Area lacks suitable refugia for this species.	No further actions are recommended for this species.
pallid bat *Antrozous pallidus*	SSC, WBWG High Priority	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees and various human structures such as bridges, barns, and human-occupied as well as vacant buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Unlikely.** The Study Area does not contain suitable rocky outcrops, trees or human structures this species needs for roosting.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
hoary bat *Lasiurus cinereus*	WBWG Medium Priority	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Unlikely.** The Study Area does not contain stands of large trees suitable for roosting. This species may occasionally forage within the Study Area and adjacent habitat.	No further actions are recommended for this species.
Townsend's big-eared bat *Corynorhinus townsendii*	SC, SSC, WBWG High Priority	This species is associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest. Females form maternity colonies in buildings, caves and mines and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**Unlikely.** The Study Area does not contain buildings or structures suitable for roosting.	No further actions are recommended for this species.
silver-haired bat *Lasionycteris noctivagans*.	WBWG Medium Priority	Primarily a forest dweller, feeding over streams, ponds, and open brushy areas. Summer habitats include a variety of forest and woodland types, both coastal and montane. Roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark.	**Unlikely.** The Study Area does not contain forest or woodland habitat and does not contain suitable roosting features.	No further actions are recommended for this species.
western red bat *Lasiurus blossevillii*	SSC, WBWG High Priority	This species is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores).	**Unlikely.** The Study Area does not contain broad leafed trees suitable for roosting. This species may occasionally forage within the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Birds				
golden eagle *Aquila chrysaetos*	CFP, BCC, EPA	Resident in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees in open areas.	**Unlikely.** The Study Area does not contain deep canyons with large trees suitable for nesting. This species may forage in the Study Area.	No further actions are recommended for this species.
bald eagle *Haliaeetus leucocephalus*	FD, SE, CFP, BCC	Occurs year-round in California, but primarily a winter visitor. Nests in large trees in the vicinity of larger lakes, reservoirs and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	**Unlikely.** The Study Area and surrounding areas do not contain large bodies of water to support foraging or trees near water to support nesting. This species may occasionally pass through the Study Area.	No further actions are recommended for this species.
ferruginous hawk *Buteo regalis*	BCC	Winter visitor. Frequents open habitats including grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys and fringes of pinyon-juniper habitats. Preys on rodents and other vertebrates.	**Unlikely.** This species may winter on-site, as the Study Area provides suitable foraging habitat for wintering birds; however this species does not breed in California.	No further actions are recommended for this species.
Swainson's hawk *Buteo swainsonii*	ST, BCC	Summer resident in the region. Forages in grasslands and nests in the immediate vicinity, often in relatively isolated, trees or tree groves. Most of the California population breeds in the Central Valley. Forages on insects and rodents, also other vertebrates.	**Unlikely.** The Study Area is highly disturbed and does not contain open grassland suitable for foraging in the vicinity. The nearest documented nest is greater than 7 miles from Study Area (CDFW 2016).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
northern harrier *Circus cyaneus*	SSC	Nests and forages in grassland habitats, usually in association with coastal salt and freshwater marshes. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas. May also occur in alkali desert sinks.	**Unlikely.** The Study Area and surrounding areas do not contain freshwater marsh and annual grassland habitat to support this species.	No further actions are recommended for this species.
white-tailed kite *Elanus leucurus*	CFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	**Moderate.** The Study Area does not contain suitable trees, however trees adjacent to the Study Area may be used by this species and may be seen foraging within the Study Area. The nearest documented occurrence is less than 4 miles north of the Study Area (CDFW 2016).	Work windows and/or pre-construction surveys.
prairie falcon *Falco mexicanus*	BCC	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Unlikely.** This species does not breed within the Central Valley. This species may occasionally forage within the Study Area during the winter months.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
American peregrine falcon *Falco peregrinus anatum*	FD, SD, CFP, BCC	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	**Unlikely.** This species does not breed within the Central Valley. This species may occasionally forage within the Study Area during the winter months.	No further actions are recommended for this species.
burrowing owl *Athene cunicularia*	BCC, SSC	Inhabits, dry annual or perennial grassland, desert and scrubland characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably California ground squirrel.	**Unlikely.** The Study Area does not contain burrows this species depends on for refuge and surrounding habitats are developed or riparian habitats unlikely to support this species.	No further actions are recommended for this species.
short-eared owl *Asio flammeus*	SSC	Occurs year-round, but primarily as a winter visitor; breeding very restricted in most of California. Found in open, treeless areas (e.g., marshes, grasslands) with elevated sites for foraging perches and dense herbaceous vegetation for roosting and nesting. Preys mostly on small mammals, particularly voles.	**No Potential.** The Study Area does not contain grassland or freshwater marsh habitats to provide suitable nesting or foraging habitat for this species.	No further actions are recommended for this species.
long-eared owl *Asio otus*	SSC	Inhabits riparian bottom lands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	**No Potential.** The Study Area is outside of the documented breeding range for this species, and provides marginal foraging habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
American white pelican *Pelecanus erythrorhynchos*	SSC	Non-breeding visitor in most of California. Nests colonially on large interior lakes or rivers; breeding restricted to portions of eastern California. Winters on sheltered inland and estuarine waters with abundant small fishes for forage.	**Unlikely.** There is no suitable nesting habitat on-site and the Study Area does not contain any water habitat for foraging.	No further actions are recommended for this species.
greater sandhill crane *Grus canadensis tabida*	ST, CFP	(Nesting and wintering) nests in wetland habitats in northeastern California; winters in the Central Valley. Prefer grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loaf sites.	**Unlikely.** The Study Area is not within the breeding range of this species and does not contain wintering habitat.	No further actions are recommended for this species.
redhead *Aythya americana*	SSC	Year-round resident and winter visitor. Typically breeds in freshwater emergent marshes, usually with deeper water (>3 ft), and dense cattail and/or tule stands. Typical wintering habitat consists of large, deep bodies of water.	**Unlikely.** The Study Area is not within the current breeding range of this species, and there are no documented breeding sites within 5 miles of the Study Area (CDFW 2015)	No further actions are recommended for this species.
long-billed curlew *Numenius americanus*	BCC	Breeds in upland shortgrass prairies and wet meadows in northeastern California. Habitats on gravelly soils and gently rolling terrain are favored over others.	**No Potential.** This species does not breed in the region, and the Study Area does not contain suitable foraging habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
bank swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Colonial nester in riparian areas with vertical cliffs and bands with fine-textured or fine-textured sandy soils near streams, rivers, lakes or the ocean. Historical range in southern and central areas of California has been eliminated by loss of nesting habitat due to flood and erosion-control projects, but currently is known to breed in Siskiyou, Shasta, and Lassen Cos., and along Sacramento River from Shasta Co. south to Yolo Co.	**Unlikely.** The Study Area is outside of the documented range of this species, and does not provide suitable nesting habitat.	No further actions are recommended for this species.
Nuttall's woodpecker *Picoides nuttallii*	BCC	Year-round resident in lowland woodlands throughout much of California west of the Sierra Nevada. Typical habitat is dominated by oaks; also occurs in riparian woodland. Nests in tree cavities.	**Moderate.** Snags and tree cavities are not present within the Study Area, however potential nesting sites for this species may occur in immediate adjacent areas. Species may use trees on site for foraging.	Work windows and/or pre-construction surveys.
Lewis's woodpecker *Melanerpes lewis*	BCC	Uncommon resident in California occurring on open oak savannahs, broken deciduous and coniferous habitats. Breeds primarily in ponderosa pine forests, riparian woodlands and disturbed pine forests but is also known to nest in orchards and oak woodlands.	**Unlikely.** Trees in the Study Area do not provide suitable nesting habitat for this species, however this species may be seen foraging in habitat adjacent to Study Area (eBird 2016).	Work windows and/or pre-construction surveys.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
loggerhead shrike *Lanius ludovicianus*	BCC, SSC	Found in broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, and desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Moderate.** Foraging habitat is available within the Study Area and suitable nesting habitat occurs in adjacent areas. This species has been frequently documented in the region (eBird 2016).	Work windows and/or pre-construction surveys.
yellow-billed magpie *Pica nuttalli*	BCC	Oak savanna with large trees and large expanses of open ground. The Central Valley floor, gentle slopes, and open park-like areas including along stream courses. Grasslands, pasture, or cultivated fields are needed for foraging.	**Unlikely.** This species is locally common, however the Study Area is highly disturbed and does not provide suitable foraging habitat. Suitable nesting habitat may occur in adjacent habitats (eBird 2016).	Work windows and/or pre-construction surveys.
purple martin *Progne subis*	SSC	Inhabits woodlands and low elevation coniferous forests. Nests in old woodpecker cavities and human-made structures. Nest is often located in tall, isolated tree or snag.	**Unlikely.** Trees in the Study Area do not provide suitable cavity nesting habitat for this species. Maybe seen foraging onsite or in area adjacent to Study Area.	No further actions are recommended for this species.
oak titmouse *Baeolophus inornatus*	BCC	Occurs year-round in woodland and savannah habitats where oaks are present, as well as riparian areas. Nests in tree cavities.	**Unlikely.** Trees in the Study Area do not provide suitable nesting habitat for this species, however this species is common throughout the region and may be seen foraging in habitat adjacent to Study Area (eBird 2016).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
tricolored blackbird *Agelaius tricolor*	SC, SSC, BCC, RP	Usually nests over or near freshwater in dense cattails, tules, or thickets of willow, blackberry, wild rose or other tall herbs. Nesting area must be large enough to support about 50 pairs.	**No Potential.** The Study Area does not contain suitable emergent vegetation to support nesting in this species. The nearest documented occurrence of this species is approximately 4.5 miles south of the Study Area (CDFW 2016).	No further actions are recommended for this species.
yellow-headed blackbird *Xanthocephalus xanthocephalus*	SSC	Summer resident. Breeds colonially in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes or ponds. Requires abundant large insects such as dragonflies; nesting is timed for maximum emergence of insect prey.	**Unlikely.** The Study Area does not contain large freshwater wetlands used by this species for nesting. This species was last observed over 3 miles of the Study Area in 2008 (eBird 2016).	No further actions are recommended for this species.
grasshopper sparrow *Ammodramus savannarum*	SSC	Summer resident. Breeds in open grasslands in lowlands and foothills, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	**Unlikely.** The Study Area does not contain open grassland habitat.	No further actions are recommended for this species.
song sparrow (Modesto Population) *Melospiza melodia*	SSC, BCC	Restricted to the Sacramento and extreme northern San Joaquin Valleys from Colusa County south to Stanislaus County. Associated with woody riparian habitat and freshwater marshes.	**Unlikely.** The Study Area is outside of this species range, and does not contain suitable wetland emergent vegetation to support nesting for this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**Unlikely.** The Study Area is outside the documented breeding range of this species, and lacks suitable nesting habitat close to a major water source. The nearest documented occurrence of this species is over 2 miles north of the Study Area (CDFW 2016).	No further actions are recommended for this species.
mountain plover *Charadrius montanus*	SSC, BCC	Winter visitor to the Central Valley and some interior portions of southern California. Wintering habitats consist of areas with very short vegetation and/or bare ground, and flat topography; agricultural fields are used most frequently. Does not breed in California.	**Unlikely.** The Study Area may provide suitable wintering habitat for this species. The Study Area is located approximately 8 miles outside the current winter range of the species (Shuford and Gardali 2008). This species does not breed in California.	No further actions are recommended for this species.
Reptiles and Amphibians				
California red-legged frog *Rana draytonii*	FT, SSC, RP	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	**No Potential.** The Study Area is approximately 5 miles outside the documented range of this species. Additionally, the Study Area does not contain water features or dispersal habitat to support this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
western spadefoot *Spea (=Scaphiopus) hammondii*	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Shallow temporary pools formed by winter rains are essential for breeding and egg-laying.	**Unlikely.** Past ground disturbance at the Study Area makes it unsuitable for this species. No pool habitat is present in the Study Area. The nearest documented occurrence of this species is over 2.5 miles to the southwest, across areas of development (CDFW 2016).	No further actions are recommended for this species.
giant garter snake *Thamnophis gigas*	FT, ST, RP	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	**No Potential.** This species is restricted to the valley floor, and the Study Area is outside the current range of the species.	No further actions are recommended for this species.
Pacific (western) pond turtle *Actinemys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	**Unlikely.** The Study Area does not provide suitable aquatic or nesting habitat. The nearest documented occurrences are 6 miles from the Study Area (CDFW 2016). The adjacent riparian habitat does not support basking habitat and may only be used as a dispersal corridor.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Fishes				
Chinook salmon - central valley spring-run ESU *Oncorhynchus tshawytscha*	FT,ST	Occurs in the Feather River and the Sacramento River and its tributaries, including Butte, Mill, Deer, Antelope and Beegum Creeks. Adults enter the Sacramento River from late March through September. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams from mid-August through early October. Juveniles migrate soon after emergence as young-of-the-year, or remain in freshwater and migrate as yearlings.	**No Potential.** The Study Area is outside both the extant and observed range of this species and does not contain aquatic habitat..	No further actions are recommended for this species.
Chinook salmon – Sacramento winter-run ESU *Oncorhynchus tshawytscha*	FE, SE, RP, NMFS	Occurs in the Sacramento River below Keswick Dam. Spawns in the Sacramento River but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 degrees C for spawning. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles typically migrate to the ocean soon after emergence from the gravel.	**No Potential.** The Study Area is outside both the extant and observed range of this species and does not contain aquatic habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
steelhead - central valley DPS *Oncorhynchus mykiss irideus*	FT, NMFS	The Central Valley ESU includes all naturally spawned populations (and their progeny) in the Sacramento and San Joaquin Rivers and their tributaries, excluding San Francisco and San Pablo bays and their tributaries. Preferred spawning habitat for steelhead is in cool to cold perennial streams with high dissolved oxygen levels and fast flowing water. Abundant riffle areas for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.	**No Potential.** The Study Area does not contain streams or freshwater.	No further actions are recommended for this species.
green sturgeon *Acipenser medirostris*	FT, SSC	Spawn in the Sacramento River and the Klamath River. Spawn at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	**No Potential.** The Study Area is outside the extant range of this species and does not contain aquatic habitat.	No further actions are recommended for this species.
Sacramento splittail *Pogonichthys macrolepidotus*	SSC, RP	Endemic to the lakes and rivers of the Central Valley, but now confined to the Sacramento Delta, Suisun Bay and associated marshes. Occurs in slow-moving river sections and dead end sloughs. Requires flooded vegetation for spawning and foraging for young. Splittail are primarily freshwater fish, but are tolerant of moderate salinity and can live in water where salinity levels reach of 10-18 parts per thousand.	**No Potential.** The Study Area is outside the extant range of this species and does not contain freshwater.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT, SSI, RP	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberry 2 to 8 inches in diameter; some preference shown for "stressed" elderberry.	**No Potential.** The Study Area does not contain elderberry to support this species.	No further actions are recommended for this species.
California linderiella *Linderiella occidentalis*	SSI	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and TDS.	**No Potential.** The disturbed nature and lack of suitable habitat within the Study Area preclude presence of this species within the Study Area. No wetland or pool habitats are present. The nearest documented occurrence of this species is approximately 1.7 miles south of the Study Area (CDFW 2016).	No further actions are recommended for this species.
conservancy fairy shrimp *Branchinecta conservatio*	FE, SSI, RP	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**No Potential.** The disturbed nature and lack of suitable habitat within the Study Area preclude presence of this species within the Study Area. The nearest documented occurrence of this species is greater than 5 miles southwest of the Study Area (CDFW 2016).	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
vernal pool fairy shrimp *Branchinecta lynchi*	FT, SSI, RP	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**No Potential.** The disturbed nature and lack of suitable habitat within the Study Area preclude presence of this species within the Study Area. No wetland or pool habitats are present. The nearest documented occurrence of this species is approximately 2.8 miles southwest of the Study Area (CDFW 2016).	No further actions are recommended for this species.
vernal pool tadpole shrimp *Lepidurus packardi*	FE, SSI, RP	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**No Potential.** The disturbed nature and lack of suitable habitat within the Study Area preclude presence of this species within the Study Area. No wetland or pool habitats are present. The nearest documented occurrence of this species is greater than 6.5 miles northwest of the Study Area (CDFW 2016).	No further actions are recommended for this species.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
FD	Federal Delisted
EPA	Federal Eagle Protection Act
BCC	USFWS Birds of Conservation Concern
SE	State Endangered
ST	State Threatened
SC	State Candidate
SD	State Delisted
SSC	CDFW Species of Special Concern
SSI	CDFW Special-Status Invertebrate
CFP	CDFW Fully Protected Animal
WBWG	Western Bat Working Group Priority species
NMFS	Species under the Jurisdiction of the NMFS
RP	Species included in a USFWS Recovery Plan or Draft Recovery Plan
Rank 1A	CRPR Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	CRPR Rank 1B: Plants rare, threatened or endangered in California and elsewhere
Rank 2B	CRPR Rank 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3	CRPR Rank 3: Plants about which CNPS needs more information (a review list)

Species Evaluations:

See evaluation definitions in Section 3.2.2 of the report.

Appendix B

Representative Photographs of the Study Area

Top: Piles of fill material within highly disturbed portions of the Study Area.

Bottom: View at southern portion of Study Area facing west.

Photos taken on: 9/16/16

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Top: View facing west of sewer access road and PG&E power lines along southern portion of Study Area.

Bottom: View of vegetation growing along fenceline in southern perimeter of Study Area.

Photos taken on: 9/16/16

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