# *Wetlands and Biological Resources Assessment*

on

APN: 017-101-008

**6382 Phillip Road**

in

Placer County, California 95747

***Prepared For***

Panattoni Development Corporation

on

January 27, 2026

***Prepared By***

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# 1.0 Introduction

Barnett Environmental and Cox Planning have prepared this *Biological Resources Assessment* of a 246.44 total acre area, inclusive of a proposed onsite mixed use development located on the property at 6382 Phillip Road in Roseville, Placer County, California (APN: 017-101-008) 95747, and a 70-foot-wide offsite Public Utility Easement (PUE) spanning two adjacent parcels (APNs: 496-020-001-000 and 496-020-035-000) along the southern boundary. This combined area is defined as the 'Assessment Area' for the purposes of this report. The onsite and offsite areas are further described as follows:

- Onsite Area: The Onsite Area is proposed for a mixed-use development and encompasses the entire 241.04-acre parcel (APN 017-101-008) at 6382 Phillip Road (Figure 2). This area includes all horizontal and vertical disturbances associated with construction, grading, installation of utilities and a bridge structure across Pleasant Grove Creek and its associated bypass that is needed to connect the northern and southern portions of the property.

- Offsite Area: The Offsite Area is needed to provide electrical service for the onsite mixed-use development and other surrounding future developments. This area includes the 70-foot-wide Public Utility Easement (PUE), which adds approximately 5.4 acres to the total Assessment Area.

The Assessment Area is located within Section 15, Township 11 North, Range 5 East of the California 7.5-minute USGS Pleasant Grove quadrangle (Figure 1) and lies within the Upper-coon Upper-Auburn watershed (HUC 18020161) at approximately 73 to 88 feet above mean sea level (msl) and is centered at latitude 38°48'9.63" N and longitude 121°23'48.74" W. The immediate surrounding land uses include the Creekview Specific Plan to the east, Amoruso Ranch to the northeast, and Westpark to the south, while lands to the west remain undeveloped. The Al Johnson Wildlife Area is located to the northwest of the Assessment Area and is part of a plan to accommodate the City's stormwater regional retention facility and potential recreation uses. Agricultural uses are located to the west along the southern portion of the site, while the Amorusa Ranch Specific Plan Area to the east/northeast is designated for the build-out of a residential development with 2,827 dwelling units. The southern edge of the onsite development is bordered by the future extension of Blue Oaks Boulevard and the West Roseville Specific Plan area (adopted by the City of Roseville in 2004), which is 60 percent built out and will include 9,496 residential units, parks, open space, and commercial and industrial uses. The addressed PUE is located immediately south of Blue Oaks Boulevard within the West Roseville Specific Plan.

The property designated for the Onsite Area was originally planted during the 1950s, was maintained in rice production through the 1990s, and has been planted in irrigated crops until the present day. The agricultural land is currently characterized by remnant cultivated grain species and sparse, ruderal, nonnative plant species, including yellow star thistle (*Centaurea solstitialis*) and chicory (*Cichorium intybus*).

The inclusion of the Offsite Area containing the PUE was requested by the City of Roseville to accommodate installation of a proposed 60-kilovolt (kV) transmission line. Because the easement overlaps portions of land previously designated as open space preserve under the West Roseville Specific Plan and associated with U.S. Army Corps of Engineers (USACE) permits [200200666], this report may include wetlands reported in previous delineations for that property.

Beyond a delineation of wetlands and "other waters of the U.S." and "waters of the State" within the Assessment Area according to the U.S. Army Corps of Engineers (1987) and California Regional Water Quality Control Board (2020) protocol, this report also:

- Identifies and describes extant vegetation communities;
- Records all plant and animal species observed during the field survey(s);
- Evaluates and identifies sensitive habitats and special status plant and animal species that may occur in the Assessment Area and could be affected by project activities; and
- Provides conclusions and recommendations for mitigating potential adverse impacts to identified resources.

# 2.0 Regulatory Setting

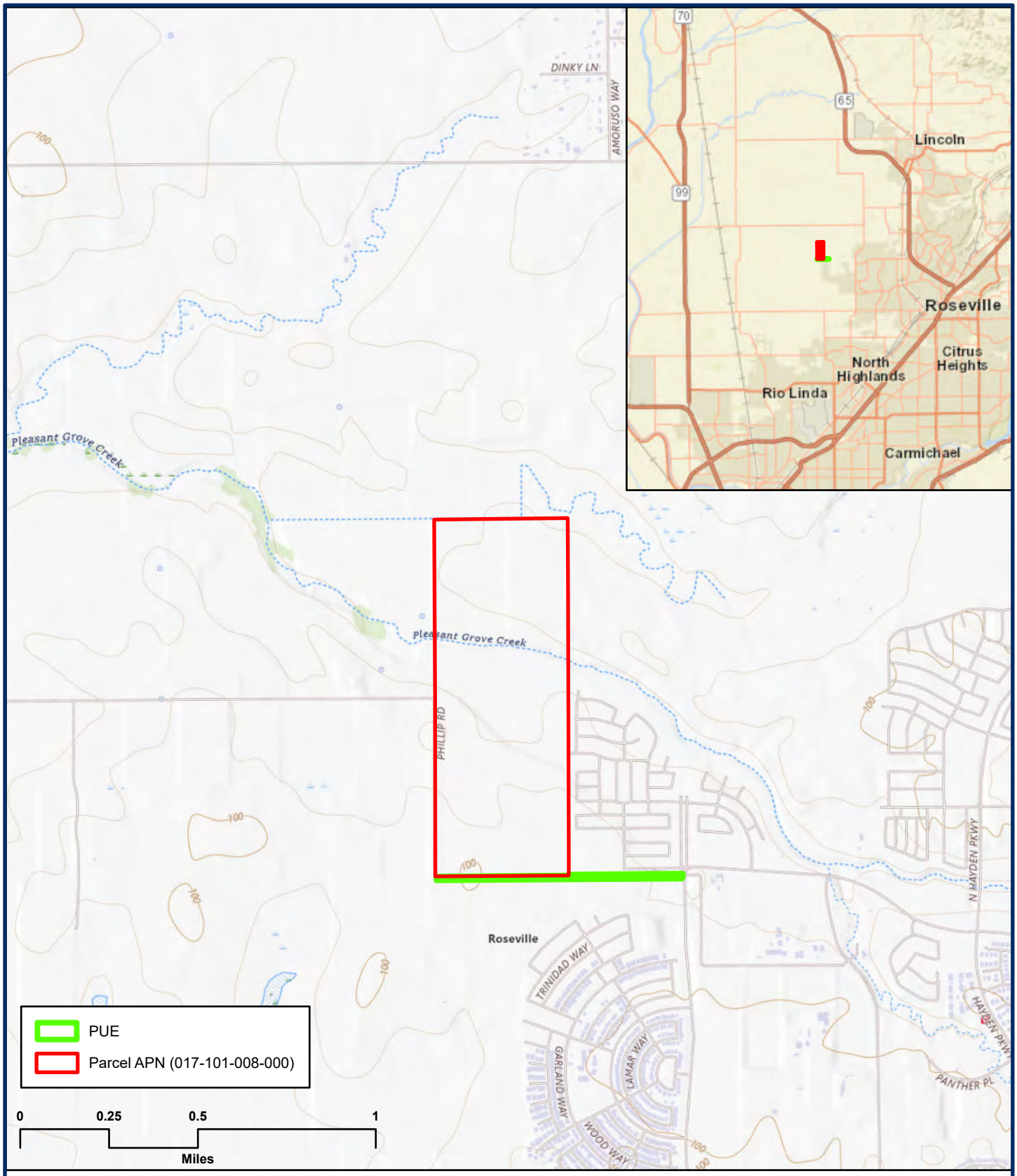
The following federal laws, regulations, and/or policies provide the legal framework guiding the protection of biological resources. We have included those laws most relevant to biological and wetland resources in and around the Assessment Area.

### 2.1 Federal Laws & Regulations

**Federal Endangered Species Act (FESA)**

The FESA, enacted in 1973, prohibits the taking, possession, sale, or transport of endangered species. Under the FESA, the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered. Both the National Marine Fisheries Service (NMFS) and the U.S. Fish & Wildlife Service (USFWS) administer FESA. NMFS is accountable for animals that are threatened or endangered (16 United States Code [USC] 1533[c]) and spend most of their lives in marine waters, including marine fish, most marine mammals, and anadromous fish such as Pacific salmon. The USFWS is accountable for all other federally listed plants and animals.

Pursuant to the requirements of FESA, a federal agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species could be present in the Assessment Area and whether the project will have a potentially significant impact on such species. In addition, federal agencies are required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]).




*Source: USGS 7.5-Minute Topographic Quad Pleasant Grove, Placer County, CA*

# FIGURE 1 - VICINITY

Date: October 28, 2025

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Projects that would result in a “take” of any federally listed threatened or endangered species are required to obtain authorization from NMFS and/or USFWS through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The Section 7 authorization process is used to determine if a project with a federal nexus would jeopardize the continued existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species. The Section 10(a) process allows take of endangered species or their habitat in non-federal activities.

**Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations (CFR) Section 10.13. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50 CFR 20. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors).

**Bald and Golden Eagle Protection Act**

The federal Bald and Golden Eagle Protection Act regulates or prohibits taking, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import of any bald or golden eagle, alive or dead, including any part, nest, or egg unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb (16 U.S.C. 668c; 50 CFR 22.3).

**Federal Clean Water Act (CWA)**

***Section 404***

Section 404 of the CWA identifies the U.S. Army Corps of Engineers (USACE) as the principal authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or Waters of the U.S. (WOUS). The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function. U.S. Congress has authorized the Environmental Protection Agency (EPA) to have a specific oversight role over USACE’s authority.

***Section 401***

The State Water Resources Control Board (SWRCB) has authority over wetlands through Section 401 of the CWA, as well as the Porter-Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy.

The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) first obtain a certificate from the appropriate state agency stating that the fill is consistent with the State’s water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. The Central Valley Regional Water Quality Control Board

(CVRWQCB) is the appointed authority for Section 401 compliance in the project site. The SWRCB additionally requires additional Waste Discharge Requirements under Porter-Cologne to protect aquatic resources that are outside federal jurisdiction.

A request for certification or waiver is submitted to the Regional Board at the same time an application is filed with the USACE. The regional board has 6 months to review the application and act on it. Because no USACE permit is valid under the CWA unless "certified" by the state, these boards may effectively veto or add conditions to any USACE permit.

### 2.2 State Laws & Regulations

**California Endangered Species Act (CESA)**

The CESA was enacted in 1984. Under the CESA, the California Fish and Wildlife Commission (CFWC) has the responsibility for maintaining a list of threatened and endangered species, while The California Department of Fish & Wildlife (CDFW) is responsible for enforcement. CDFW also maintains lists of species of special concern. A Species of Special Concern (CSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role;
- is listed as federally-, but not state-, threatened or endangered;
- meets the state definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status.

CESA prohibits the take of California listed animals and plants in most cases, but CDFW may issue incidental take permits under special conditions. Pursuant to the requirements of CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the project site and determine whether the project would have a potentially significant impact on such species. In addition, CDFW encourages consultation on any project that could affect a listed or candidate species.

**Fish and Game Code – Sections 1600-1616**

Under Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined in the code as the "… *bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit* ..." (Section 1601). In practice, the CDFW usually marks its jurisdictional limit at the top of the stream or bank or at the outer edge of the riparian vegetation, whichever is wider.

The CDFW also derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600-1616 of the Fish and Game Code (lake and streambed alteration agreements), Section 30411 of the California Coastal Act (CDFW becomes the lead agency for the study and identification of degraded wetlands within the Coastal Zone), CESA (protection of state listed species and their habitats - which could include wetlands), and the Keene-Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, the CDFW asserts authority over wetlands within the state either through review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state listed species, or through stream and lakebed alteration agreements.

**Fish and Game Code – Sections 1900-1913**

These Sections embody the Native Plant Protection Act, which is intended to preserve, protect, and enhance endangered or rare native plants in the state. The act directs CDFW to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Under the act, CDFW may adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

Section 1913 of that Act allows landowners conducting certain activities to take actions that will destroy rare or endangered plants, provided that where the Department of Fish and Game (DFG) has previously notified the owner "that rare or endangered plants are growing" on his or her land, the owner notifies CDFW "at least 10 days in advance of changing the land" to allow the state agency to come and "salvage" the plants. Subject to this requirement, section 1913 states that "the presence of rare or endangered plants" on a property shall not restrict (1) timber operations conducted pursuant to an approved timber harvest plan, (2) "required mining assessment work pursuant to federal or state mining laws," (3) "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, other right-of-way by the owner of the land or his agent," or (4) "the performance by a public agency or publicly or privately owned public utility of its obligation to provide service to the public."

**Fish and Game Code – Sections 3503, 3503.5, 3513**

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird except as otherwise provided by this code or any regulation made pursuant thereto. Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

**Fish and Game Code – Sections 3511, 4700, 5050, and 5515**

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time, and no provision of the CFWC or any other law may be construed to authorize the issuance of permits or licenses to take any fully protected species. No such permits or licenses heretofore issued may have any force or effect for

any such purpose, except that the CFGC may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFW.

**California Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act established the SWRCB and each Regional Water Quality Control Board (RWQCB) as the principal state agencies for coordinating and controlling water quality in California. Responsibility for the protection of water quality in California rests with the SWRCB and nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. Pursuant to the Act, each of California's nine regional boards must prepare and periodically update basin plans that set forth water quality standards for surface and groundwater, as well as actions to control point and non-point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to achieve wetlands protection through enforcement of water quality standards.

The Porter-Cologne Water Quality Control Act provides that "All discharges of waste into the waters of the State are privileges, not rights." Waters of the State are defined in Section 13050(e) of the Porter-Cologne Water Quality Control Act as "…any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter-Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction, which would include the project site. As noted above, the RWQCB is the appointed authority for Section 401 compliance in the project site. If the USACE determines that they have no regulatory authority on the project site and they also determine that a CWA Section 404 permit is not required, the project proponent could still be responsible for obtaining the appropriate CWA Section 401 permit or waiver from RWQCB for impacts to Waters of the State.

In 2019, the State Water Resource Control Board extended their water quality certification to include waste discharge requirements as adopted in the "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State," which include elements of the Clean Water Act. These procedures also lay out the steps for the submission, review, and approval of applications for activities related to these activities.

**California Environmental Quality Act**

Although specific federal and state statutes protect threatened and endangered species, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been modeled after the definition in FESA, and the section of the California Fish and Game Code dealing with rare or endangered plants and animals and allow a public agency to undertake a review to determine if a significant effect on a species that has not yet been listed by either the USFWS or CDFW (i.e., species of concern) would occur. Whether a species is rare, threatened, or endangered can be legally significant because, under CEQA Guidelines Section 15065, an agency must find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species." Thus, CEQA provides an agency with the ability to protect a species from a project's

potential impacts until the respective government agencies have an opportunity to designate the species as protected if warranted.

### 2.3 Local Laws and Regulations

**City of Roseville**

The City of Roseville requires development projects to follow these environmental policies:

- **Policy OS2.1** Incorporate existing trees into development projects with an emphasis on avoiding the removal of groupings or groves of trees. Where preservation is not feasible, mitigation for the loss of removed trees continues to be required.
- **Policy OS2.2** Preserve and restore continuous riparian corridors and adjacent habitat along the City's creeks and waterways.
- **Policy OS2.4** Requires the preservation of contiguous areas in excess of the City's Regulatory Floodplain, as defined in the Safety Element, as merited by special resources or circumstances. Special circumstances may include but are not limited to, sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grassland connections in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements.
- **Policy OS2.6** Provide for the protection and enhancement of native fishery resources, as informed by continued coordination with the California Department of Fish and Wildlife.
- **Policy OS2.7** Require consistency with the City of Roseville Open Space Preserve Overarching Management Plan for dedication and management of on-site wetland mitigation as part of new development.
- **Policy OS2.8** Consider off-site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.
- **Policy OS2.11** Habitat preservation and mitigation for woodlands, creeks, riparian, and seasonal wetland areas should occur within the defined boundaries of the impacting projects where long-term resource viability is feasible and desirable, consistent with applicable state and federal permits.
- **Policy OS2.12** Consider the use of City property for habitat preservation and mitigation requirements resulting from new development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.
- **Policy OS2.13** Work with adjacent jurisdictions, regulatory agencies, and community organizations to explore opportunities for regional mitigation banking.

The City of Roseville has adopted the following regulations for the protection of environmental resources:

**Flood Damage Prevention Ordinance Section 9.80**

Land uses, and development within the City's regulatory floodplain are restricted to protect residents and structures from risks associated with flooding. Railroads, streets, bridges, utility transmission lines, pipelines, and other similar uses of a primarily open space nature may be

permitted in the floodplain with the approval of a flood encroachment permit. Any development is prohibited from increasing peak flows, adversely affecting the stream channel, increasing flood heights, or having an adverse effect on a proposed use.

An adverse effect on base flood elevations occurs when the cumulative effect of the proposed development will increase the base flood elevations by one-tenth of one foot or more at any point outside of the property controlled by the developer (Section 9.80.040). Within the floodway, all new development is prohibited unless a certified professional engineer certifies that the encroachment will not result in any increase in flood levels (Section 9.80.210). In addition, the following conditions apply:

- Any fill placed in the floodplain must be shown to serve some beneficial purpose, must be limited to the minimum amount necessary to meet its purpose, and any fill or excavation must be protected against erosion by riprap, vegetative cover, or bulkheading.
- Storage or processing of materials that are buoyant, flammable, toxic, explosive, or could be injurious to animal or plant life in time of flooding is prohibited. Storage of other materials may be allowed if they will not be damaged by floods and are readily removable from the area within the time available after a flood warning. All materials stored in the floodplain must be anchored or be readily removable during flood season.

The City Council may grant a variance from these ordinances for a project, taking into consideration public safety, project engineering, and the public service provided by the project (Section 9.80.310

**Tree Preservation Chapter 19.66**

Chapter 19.66 of the City of Roseville Municipal Code, "Tree Preservation," contains requirements for projects that would remove protected trees (i.e., native oak trees equal to or greater than six inches in diameter at breast height (dbh) measured as a total of a single trunk or multiple trunks). Project applicants shall not harm, destroy, kill, or remove any protected tree or conduct project activities within the protected zone (i.e., a circle equal to the largest radius of a protected tree's dripline plus one foot) unless authorized by a Tree Permit. Applications for Tree Permits would be included as part of the land use permit for a discretionary project and should include a site plan map, tree locations, protected zones of protected trees, and an arborist report and may be accompanied by an application fee required by City Council.

Protected trees that would be retained on a project site would be subject to tree preservation measures as outlined in the code, including protective fencing, signing, and modified ground disturbance activities (e.g., trenching with hand tools). If project implementation would include the removal of protected trees, mitigation for the loss of the trees would be required and would include one of the following four methods: replacement of trees, relocation of trees, revegetation, or in-lieu mitigation fees. The City Planning Manager may allow the removal of a protected tree that has been certified by an arborist to be a dead tree without any replacement or mitigation requirements.

**West Roseville Specific Plan**

As part of the West Roseville Specific Plan (WRSP), the Public Utility Easement (PUE) area was previously authorized under Department of the U.S. Army Corps of Engineers (USACE) permit [200200666]. This authorization allowed the discharge of fill into approximately 21.76 acres of

Waters of the United States to support development within the Westpark/Fiddyment Ranch portion of the WRSP. The permit also established permanent requirements for mitigation and long-term management.

The proposed 60kV utility lines would be located within the planned PUE along the southern and eastern edges of the project area. However, both the permit and the associated Open Space Preserve Operations and Management Plan (OSPOMP) impose permanent restrictions on land use within the preserve, including prohibitions on new roads, utilities, or structures without prior U.S. Army Corps of Engineers (USACE) approval. Any modifications to accommodate additional infrastructure, such as the 60kV lines, will therefore require a formal amendment to the Section 404 permit and the OSPOMP, or a separate permit action, subject to review by USACE and the U.S. Fish and Wildlife Service (USFWS).

To offset authorized impacts, the WRSP required extensive compensatory mitigation measures, including:

- Establishment of a 738-acre open space preserve, incorporating 38.19 acres of avoided wetlands.
- Creation of 43 acres of vernal pool habitat at Yankee Slough Preserve and preservation of 25.48 acres of vernal pool habitat at the East Sheridan Mitigation Area.
- Construction of 7.07 acres of seasonal/perennial wetlands on-site and 8 acres of seasonal wetlands at Yankee Slough.
- Preservation of off-site lands under permanent conservation easements, including Hofmann Ranch, the JBL property, and Reason Farms.

## 3.0 Methodology

Prior to our field surveys, we queried the U.S. Fish & Wildlife Service's *National Wetland Inventory* (NWI; Figure 2); EcoAtlas' *California Aquatic Resources Inventory* (CARI; Figure 3); NRCS *Web Soil Survey* (Appendix A; Figure 4); and *Hydric Soil Map Units* for Placer County, California to determine whether any wetlands or "other waters of the U.S.," "waters of the State," or soils compatible with wetland resources had been historically recorded on or around, or are likely to occur on the site, as defined by the 1987 U.S. Army Corps of Engineers (USACE, 1987) *Wetlands Delineation Manual* and its 2008 *Arid West Regional Supplement*. We also assessed potential federal and/or state jurisdictional wetlands and "other waters of the U.S." in the Assessment Area in accordance with the 2014 Corps *Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) for Non-perennial Streams in the Arid West Region of the Western United States.*

To provide a vision of what potential biological resources may be present on the property, we queried the following online sources for information on the Assessment Area's potential plant and wildlife communities.

1. California Department of Fish & Wildlife's Natural Diversity Database (RareFind 5) for observations of special status plant and animal species within five miles and the nine USGS quadrangles surrounding the Assessment Area (Figure 6; Appendix B),

2. U.S. Fish and Wildlife Service's IPaC Database of federally listed special status species in Sacramento County (Appendix C),
3. The California Native Plant Society's Inventory of Rare & Endangered Plants in California covering the nine quadrangles surrounding the Assessment Area.
4. The California Department of Wildlife's California Wildlife Habitat Relationship (CWHR) System, covering the terrestrial biodiversity within an overlapping hexagon(s).
5. UC Davis' Calfish system utilizing the PISCES database of freshwater native and non-native fish species present currently and/or historically present, categorized by sub-watershed (https://calfish.ucdavis.edu/location/?ds=698&reportnumber=1293&catcol=4712&categorysearch=%27Pleasant%20Grove%20Creek-180201610302%27).
6. California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) BIOS (BIOS 6), accessed via the CNDDB Query Viewer, for layers of CNDDB special-status species range and watershed maps (https://apps.wildlife.ca.gov/bios6/?tool=cnddbqv).

We also reviewed previous studies that had been conducted in the immediate area for information about biological resources in the region:

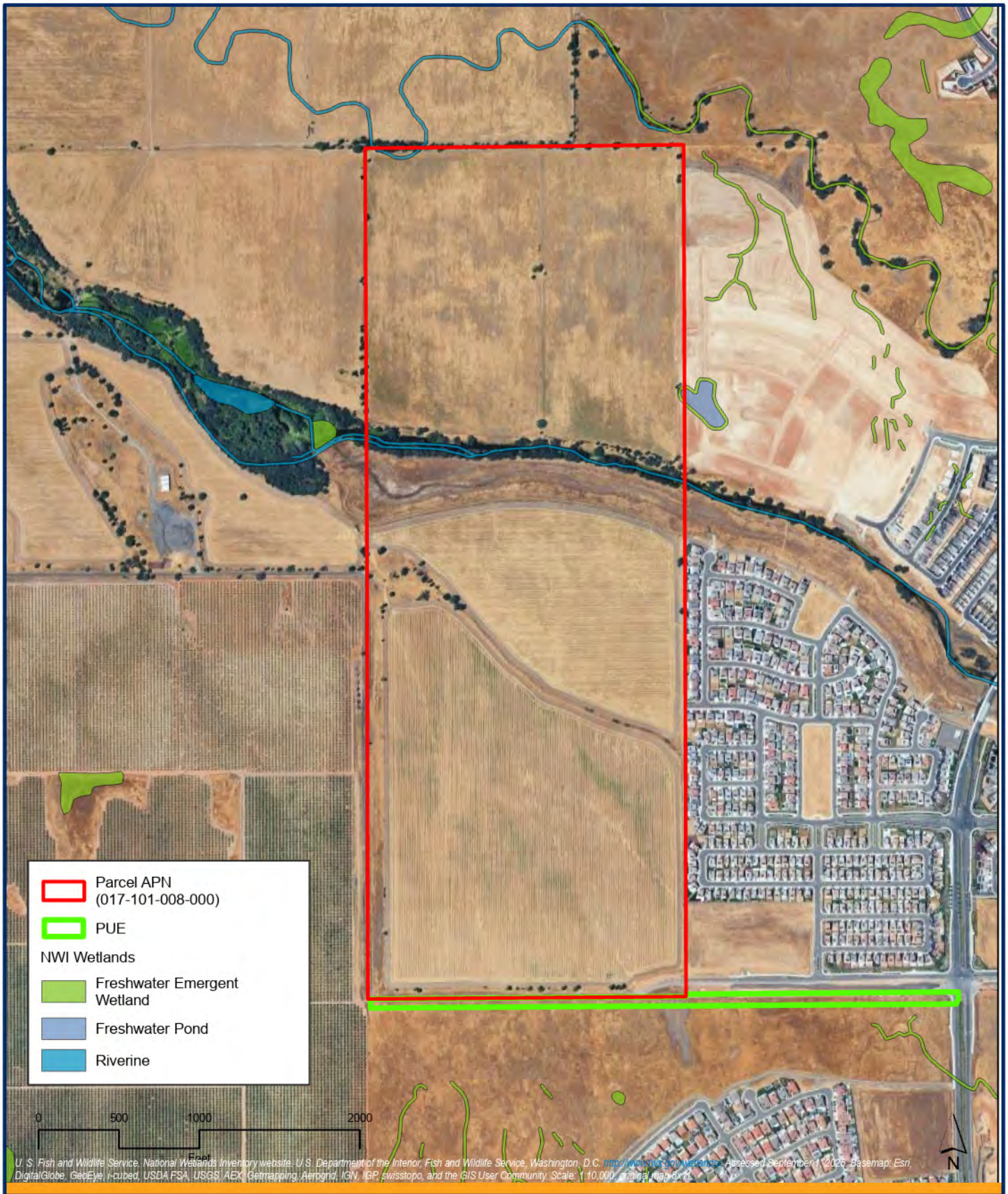
1. ECORP Consulting, Inc. 2015. Biological Resources Assessment Amorusa Ranch Project, Placer County, California
2. Bailey, Randy. 2003. Streams of Western Placer County: Aquatic Habitat and Biological Resources Literature Review.

Barnett Environmental and Cox Planning Solutions biologists surveyed the Assessment Area in February and July 2022, as well as September 16, 2025. The surveys included recorded observations of: (1) dominant plant communities, (2) plant and animal species (with emphasis on rare and endangered species) observed or their sign (nests, burrows, tracks, scat) and (3) the suitability of onsite habitats and those immediately adjoining the Assessment Area to support special status plant or animal species. We used generalized plant community classification schemes to classify onsite habitat types (Sawyer, Keeler-Wolf, and Evens, 2009). The 2025 survey was conducted to confirm previous observations of potential habitat, as well as to survey the additional PUE area on the south and west sides of the property.

# 4.0 Existing Conditions

### 4.1 Soils

According to Natural Resource Conservation Service (NRCS), the Assessment Area, including the added PUE, is comprised of six soil types, Alamo-Fiddyment complex, 0 to 5 percent slopes, Cometa-Fiddyment complex, 1 to 5 percent slopes, Cometa-Ramona sandy loams, 1 to 5 percent slopes, Xerofluents, occasionally flooded, Xerofluents, frequently flooded, and Xerofluents, hardspan substratum (Figure 4 and Appendix A).




# FIGURE 2 - NATIONAL WETLANDS INVENTORY (NWI) WETLANDS

Date: October 28, 2025

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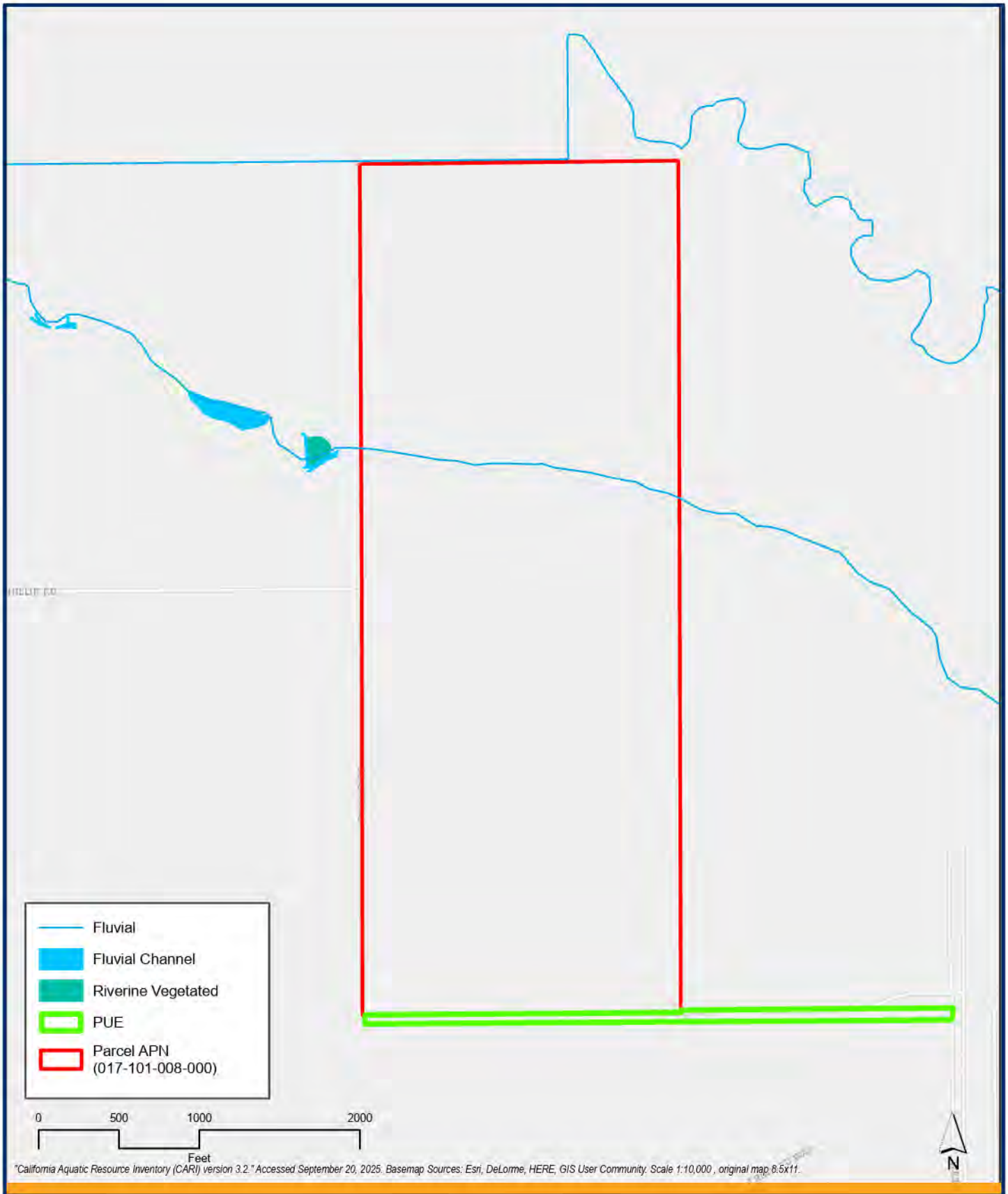


*"California Aquatic Resource Inventory (CARI) version 3.2." Accessed September 20, 2025. Basemap Sources: Esri, DeLorme, HERE, GIS User Community. Scale 1:10,000 , original map 8.5x11.*

## FIGURE 3 - CALIFORNIA AQUATIC RESOURCES INVENTORY (CARI) WETLAND

Date: October 28, 2025

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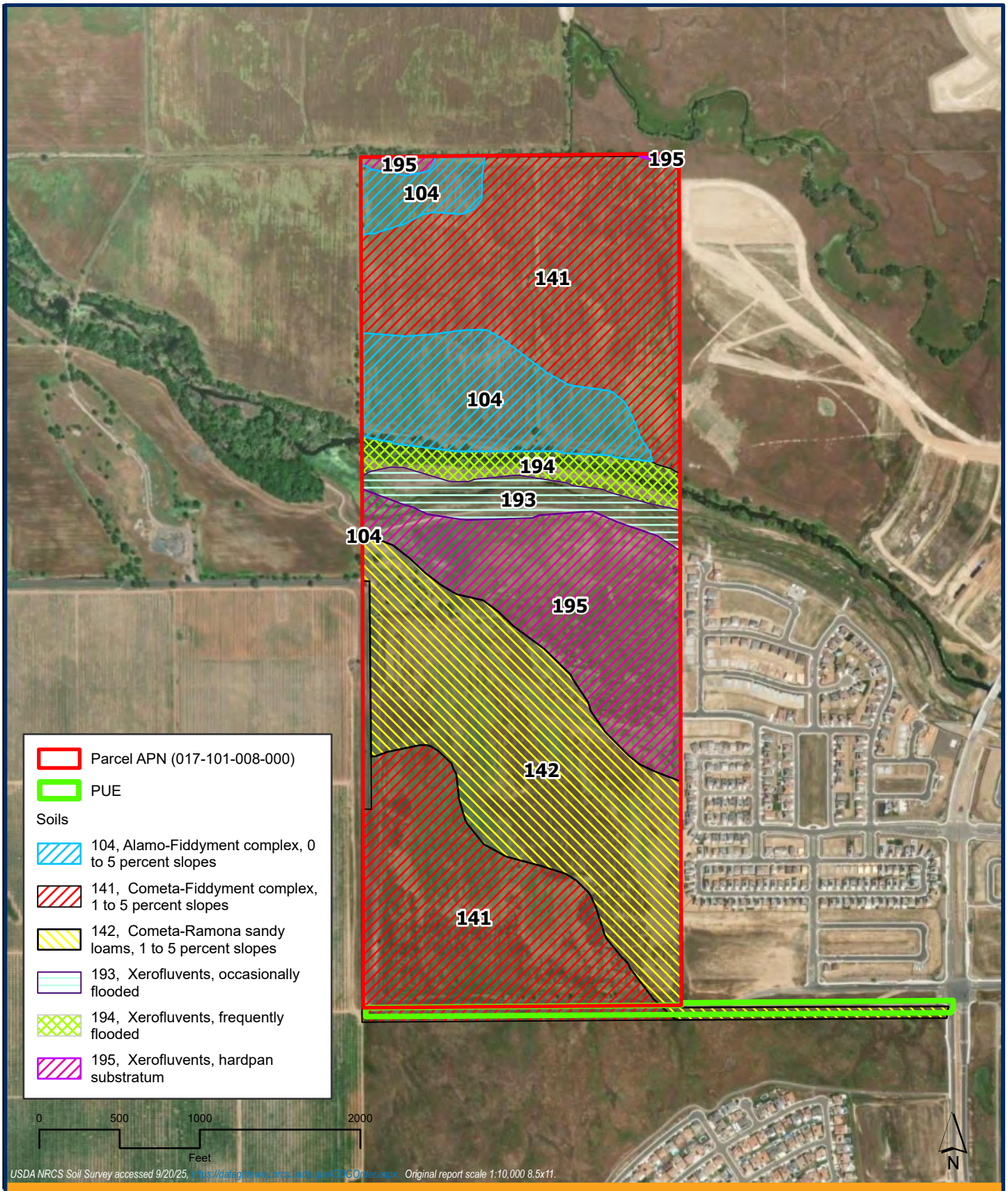


# FIGURE 4 - NRCS PROJECT MAPPED SOILS

Date: October 28, 2025

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Alamo-Fiddyment complex, 0 to 5 percent slopes; This map unit consists of approximately 50 percent Alamo soils and 30 percent Fiddyment soils, with the remainder in minor components. Alamo soils occur in depressions and are formed in alluvium. A typical profile consists of clay from 0 to about 37 inches, underlain by an indurated duripan. Alamo soils are poorly drained, have very high runoff, and a very low capacity to transmit water (NRCS Ksat rating "very low," approximately 0 in/hr). NRCS indicates a seasonal water table at or near the surface (about 0 inches) and occasional flooding, but no mapped ponding. Fiddyment soils occur on ridges and side slopes and are formed in alluvium derived from sedimentary rock. A typical profile consists of a loam surface over clay loam, underlain by indurated material and then weathered bedrock at approximately 35 to 39 inches. Fiddyment soils are well drained, have high runoff, and very low permeability, with depth to water table greater than 80 inches and no flooding or ponding mapped.

Cometa-Fiddyment complex, 1 to 5 percent slopes; Cometa soils occur on terraces and formed in alluvium derived from granite. A typical Cometa profile consists of a sandy loam surface layer over clay, underlain by sandy loam. Cometa soils are well drained with very high runoff. Depth to the water table is greater than 80 inches, and flooding and ponding are not expected. The most limiting layer has very low to moderately low capacity to transmit water (NRCS Ksat rating 0.00–0.06 inches per hour). Fiddyment soils in this complex occur on ridges and formed in alluvium derived from siltstone (sedimentary rock). A typical profile consists of a loam surface layer over clay loam, underlain by an indurated layer and then weathered bedrock. Fiddyment soils are well drained with very high runoff, and the depth to water table exceeds 80 inches. Flooding and ponding are not expected. They have very low saturated hydraulic conductivity (NRCS Ksat rating approximately 0.00 inches per hour).

Cometa-Ramona sandy loams, 1 to 5 percent slopes; Cometa soils are found on terraces and are derived from alluvium derived from granite. A typical profile consists of a sandy loam surface layer over a clay subsoil and then a sandy loam layer to about 60 inches. These soils are well drained and have generally slow to moderate runoff. Depth to the water table is more than 80 inches, and there is no frequency of flooding or ponding. The capacity of the most limiting layer to transmit water is very low (approximately 0.00 to 0.06 inches per hour). Ramona soils, also derived from alluvium from granitic rock on terraces, are deep, well-drained soils with a sandy loam surface over clay loam subsoil. Permeability is moderately slow, and depth to the water table is more than 80 inches, with no flooding or ponding.

Xerofluvents, occasionally flooded, are typically found on flood plains at elevations of about 20 to 500 feet. They are derived from alluvium derived from mixed rocks. A typical profile has stratified loamy sand to fine sandy loam (0 to 30 inches), stratified loamy sand to fine sandy loam to silt loam (30 to 48 inches), and stratified loam to silty clay loam to clay (48 to 55 inches). These soils are moderately well drained and have a negligible runoff class. Depth to the water table is approximately 30 to 60 inches. They experience occasional flooding and occasional ponding and have moderately high to high permeability (0.20 to 1.98 inches per hour).

Xerofluvents, frequently flooded, are typically found in drainageways at elevations of 0 to about 1,500 feet and are derived from recent alluvium. A typical profile has stratified loamy sand to fine sandy loam (0 to 15 inches), stratified loamy sand to fine sandy loam to silt loam (15 to 37 inches), and silty clay loam to clay (37 to 55 inches). These soils are somewhat poorly drained and have a

very low runoff class. They have moderately high to high permeability (0.20 to 1.98 inches per hour). Flooding is frequent along active channels, and ponding does not occur.

Xerofluvents, hardpan substratum, are typically found along principal drainage courses on the valley floor and are derived from alluvium. A typical profile has stratified loam to clay loam (0 to about 40 inches) overlying a hardpan (duripan) at approximately 40 inches. These soils have moderately slow permeability and slow runoff, with a slight erosion hazard. NRCS characterizes them as being associated with drainageways that may experience occasional overbank flooding, but they are not subject to persistent ponding. They also have a low risk of corrosion for concrete and a high risk of corrosion for steel. They have very low permeability (0.00 to 0.00 in/hr).

**4.2 Hydrology**

The Onsite portion of the Assessment Area is bisected (east/west) by Pleasant Grove Creek. It was originally planted during the 1950s, maintained in rice production through the 1990s, and then maintained in irrigated row crops until the present day. Continuous agricultural activity over the past 70+ years has modified the parcel's original hydrology (via leveling and rice checks) to effectively remove the native vernal pool wetlands that once occurred here prior to the 1960s and that persist in much of the surrounding (non-agricultural) landscape. CALVEG currently classifies the property as "*Rice Cultivation,*" and the California Aquatic Resources Inventory specifically excludes this property from the prevalent "vernal pool" habitat of the surrounding parcels due to its long history of cultivation.

Pleasant Grove Creek is a third order perennial stream and typically contains water year-round. During reconnaissance-level surveys on February 23 and July 21, 2022, the creek was flowing slowly with some stagnant areas (i.e., low or no flow, green algae accumulation) and contained pools of various sizes. Beaver (*Castor canadensis*) dams are present in the creek, modifying flow in some areas. Some reaches of the creek have exposed muddy banks with dense cattails (*Typha* sp.), and some reaches have very little exposed bank habitat with dense vegetation (e.g., willows [*Salix* spp.]) present to the water line. Valley oak riparian woodland habitat is present along the north and south banks of the creek.

A 10'-15' escarpment runs in a southeasterly direction from the Phillip Road entrance of the property's southern border to its eastern boundary, clearly demarcating an elevation change between the southern and northern (flood basin) portions of the property. Water outfalls into this "basin" via piped culverts from (1) a large irrigation canal that runs in an S-N direction from Phillip Road and (2) overflow water from the southern portion of the parcel.

The portion of the property north of Pleasant Grove Creek is, at present, actively cultivated and irrigated with water from a long-established irrigation canal along the parcel's entire northern boundary. Water drains from this canal southward into several smaller irrigation ditches. This irrigation canal has been functioning long enough to support a healthy riparian corridor, replete with oaks (*Quercus*), cottonwoods (*Populus freemontii*), and willows *(Salix sp.)* along its entire length bordering this parcel. A long-standing debris obstruction has effectively dammed water in the canal at the parcel's northwest corner so that it backs up towards the east, helping to maintain the riparian habitat, but is blocked towards the west, where there are no trees.

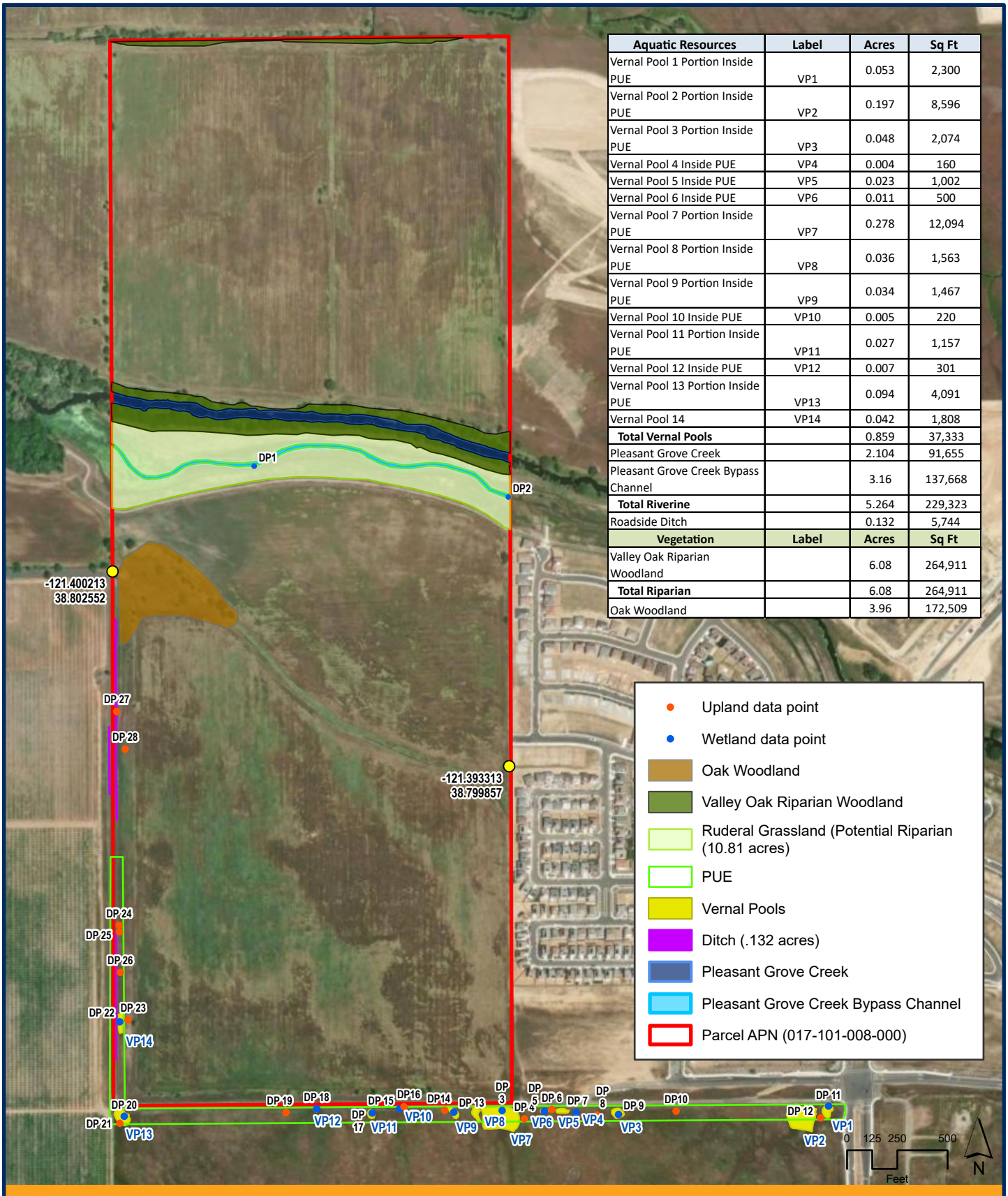
The Offsite portion of the Assessment Area contains 14 vernal pools (VP1–VP14) were mapped in this area. These features are part of a broader vernal pool grassland complex that supports seasonal ponding and wetland hydrology independent of Pleasant Grove Creek. The pools and swales in this area are precipitation-driven, with surface water accumulating in shallow depressions underlain by clay soils and hardpan. As a result, they provide a more natural hydrologic regime than the cultivated fields to the north and contribute to the overall watershed function and connectivity of the City's open space system.

**4.3 Wetlands and "Other Waters of the U.S." and "Waters of the State"**

The CARI (Figure 3) shows a fluvial channel within the parcel; aerial imagery and onsite inspection confirmed this feature and verified that no vernal pool remains. Approximately 6.255 acres of wetlands and other waters were mapped in the Assessment Area (see Table 1 and Figure 5), consisting of Pleasant Grove Creek, the bypass channel, and several wetlands and ditches.

Preceding the July 2022 field delineation, precipitation amounts in the region had been average to below average for the past two years. Weather conditions at the time of the survey were sunny, with late morning temperatures approximately 70 degrees Fahrenheit with light winds. In contrast, the September 2025 survey was conducted after 2 normal years of precipitation, as well as higher than normal precipitation levels during the 2022-2023 wet season.

A large portion of the south side of the PUE that was surveyed in September and October of 2025 was recently burnt, leaving vegetation unidentifiable (see photo 11 on our photo plate). The survey was conducted under hot, dry late-summer conditions, with regional temperatures reaching the upper 90s °F. On the west side of the PUE, the majority of the Assessment Area appears to be previously disturbed and graded, and soil pits revealed that the soil was likely fill that contained soft soil, rocks, and road base (see photo 12 on our photo plate). The wetlands in this area appear to have been formed on top of the fill material, which may have been discarded as a result of agriculture sometime in the past. Additionally, multiple roadside ditches were identified during these ditches, as seen in Figure 5. Verification by the USACE would be required to confirm whether these features are jurisdictional under the U.S. Clean Water Act, as well as California's State Water Quality Control Act. However, comparison with the wetlands delineated for federal and state approval of the City's OSOMP reveals the features are of similar size and shape. While these features are not hydrologically connected to other waters of the U.S., they are connected to existing federal authorization and agency staff have confirmed any effects to these features would require further federal approval.




| Aquatic Resources | Label | Acres | Sq Ft |
|---|---|---|---|
| Vernal Pool 1 Portion Inside PUE | VP1 | 0.053 | 2,300 |
| Vernal Pool 2 Portion Inside PUE | VP2 | 0.197 | 8,596 |
| Vernal Pool 3 Portion Inside PUE | VP3 | 0.048 | 2,074 |
| Vernal Pool 4 Inside PUE | VP4 | 0.004 | 160 |
| Vernal Pool 5 Inside PUE | VP5 | 0.023 | 1,002 |
| Vernal Pool 6 Inside PUE | VP6 | 0.011 | 500 |
| Vernal Pool 7 Portion Inside PUE | VP7 | 0.278 | 12,094 |
| Vernal Pool 8 Portion Inside PUE | VP8 | 0.036 | 1,563 |
| Vernal Pool 9 Portion Inside PUE | VP9 | 0.034 | 1,467 |
| Vernal Pool 10 Inside PUE | VP10 | 0.005 | 220 |
| Vernal Pool 11 Portion Inside PUE | VP11 | 0.027 | 1,157 |
| Vernal Pool 12 Inside PUE | VP12 | 0.007 | 301 |
| Vernal Pool 13 Portion Inside PUE | VP13 | 0.094 | 4,091 |
| Vernal Pool 14 | VP14 | 0.042 | 1,808 |
| **Total Vernal Pools** | | 0.859 | 37,333 |
| Pleasant Grove Creek | | 2.104 | 91,655 |
| Pleasant Grove Creek Bypass Channel | | 3.16 | 137,668 |
| **Total Riverine** | | 5.264 | 229,323 |
| Roadside Ditch | | 0.132 | 5,744 |
| **Vegetation** | **Label** | **Acres** | **Sq Ft** |
| Valley Oak Riparian Woodland | | 6.08 | 264,911 |
| **Total Riparian** | | 6.08 | 264,911 |
| Oak Woodland | | 3.96 | 172,509 |

# FIGURE 5 - WETLAND DELINEATION

Date: January 19, 2026

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**Table 1 - Mapped Wetlands and Other Waters by Type**

| Name | Area (SF) | Area (acres) |
|---|---|---|
| **Riverine** | | |
| Pleasant Grove Creek | 91,655 | 2.104 |
| Pleasant Grove Creek Bypass Channel | 137,668 | 3.160 |
| **Subtotal** | | |
| Vernal Pools | 37,333 | 0.859 |
| Roadside Ditches | 5,749 | 0.132 |
| **Total** | **272,405** | **6.255** |

### 4.4 Vegetation Communities

A total of 324 protected trees are present on the project site, including blue oaks (*Quercus douglasii*), interior live oaks (*Quercus wislizeni*), and valley oaks (*Quercus lobata*) (California Tree and Landscape Consulting, Inc. 2021). Several oak trees within a small grove near the property's entrance at the southern parcel's northwest corner, along Phillip Road, are quite large, including an interior live oak (*Quercus wislizeni*) with a ~36-inch + DBH. Several valley oaks (*Q. lobata*) along the western end of the escarpment are also of good size, with DBHs larger than 20 inches.
Within the property, there are five vegetation communities:

#### Agricultural (Hay Fields/Row Crops)

Approximately 210.9 acres of agricultural land is present on the project site. This land was designated as hay fields/row crops in the City of Roseville General Plan 2035; however, the project site is not currently in agricultural production. The parcel was originally planted during the 1950s, was maintained in rice production through the 1990s, and has been planted in irrigated crops until the present day. The agricultural land is regularly disked every two years and is currently characterized by remnant cultivated grain species and sparse, ruderal, nonnative plant species, including yellow star thistle (*Centaurea solstitialis*) and chicory (*Cichorium intybus*). Individual trees are present along the borders of the agricultural land, including valley oak (*Quercus lobata*), Pacific willow (*Salix lucida*), and Fremont cottonwood (*Populus fremontii*) (California Tree and Landscape Consulting, Inc. 2021). Earthen berms are present along the edges of the agricultural land, some of which contain California ground squirrel (*Otospermophilus beecheyi*) burrows.

#### Riverine Pleasant Grove Creek

An approximately 0.4-mile segment of Pleasant Grove Creek extends east to west through the project site, bisecting the site. Pleasant Grove Creek is a third order perennial stream and typically contains water year-round. During the reconnaissance-level survey conducted by Ascent Environmental on August 6, 2021, the creek was flowing slowly with some stagnant areas (i.e., low or no flow, green algae accumulation) and contained pools of various sizes. Ascent noted that beaver (*Castor canadensis*) dams are present in the creek, modifying flow in some areas. Some

reaches of the creek have exposed muddy banks with dense cattails (*Typha sp*.) and some reaches have very little exposed bank habitat with dense vegetation (e.g., willows [*Salix spp.])* present to the water line. Valley oak riparian woodland habitat is present but sparse along the north and south banks of the creek. In the parcel immediately downstream, the woodland habitat is denser.

**Valley Oak Riparian Woodland**

Approximately 6.08 acres of valley oak riparian woodland habitat is present in association with riverine habitat on the project site. This habitat is dominated by valley oak and also contains Fremont cottonwood (*Populus fremontii*), willow (*salix*), and interior live oak (*Quercus wislizeni*). Understory plant species included Himalayan blackberry (*Rubus armeniacus*), cattails (*typha*), and nonnative grasses dominated by wild oat (*Avena fatua*).

**Oak Woodland**

Approximately 3.96 acres of oak woodland habitat is present within the agricultural land on the project site. This grove of trees in the middle of the project site includes valley oak (Quercus lobata), blue oak (*Quercus douglasii*), and Arizona ash (*Fraxinus velutina*) (California Tree and Landscape Consulting, Inc. 2021).

**Pleasant Grove Creek Bypass Channel**

Approximately 15 acres of the project site directly south of Pleasant Grove Creek contains the Pleasant Grove Creek Bypass Channel, a human-constructed flood channel that directs runoff from the project site and surrounding residential areas into Pleasant Grove Creek. This area is comprised of 3.16 acres of riverine habitat, as well as 10.81 acres of ruderal grassland habitat area that could be potential riparian habitat but has been largely disturbed over the years. The ruderal grassland habitat is largely populated with non-native herb and grass species that have taken advantage of the disturbed soil. The area does contain specific facultative plant species that are associated with wetlands and riparian areas that are different than the surrounding agricultural land, including curly dock (*Rumex crispus*) and sedges (*Carex spp*.).The channel was constructed in uplands (agricultural crops) in 2019 and flows parallel to Pleasant Grove Creek from east to west, converging with Pleasant Grove Creek approximately 250 feet west of the project site.

***Vernal Pool***

A total of 14 wetland features approximately 0.859 acres (previously identified within the adjacent open space preserve within the West Roseville Specific Plan) having strong floristic assemblages and hydro geomorphological signatures associated with vernal pools were identified. These features had characteristic basin-rim hydrogeomorphology that appears to sustain saturated soils and/or ponded water for a sufficient hydroperiod during the wet season to support a prevalence of hydrophytic vegetation and contains floristic assemblages strongly allied with or having vernal pool indicator species.

**4.5 Wildlife**

This area is considered important for wintering raptors in the Central Valley. Burrowing owls (*Athene cunicularia*) have been found on the Amoruso Ranch Property, a colony of nesting tricolored blackbirds has been observed to the northeast of the Assessment Area, and several raptor nests

have been documented to occur immediately south of the Amorusa Ranch Property. The grassland community supports birds, including mourning dove (*Zenaida macroura*), Western meadowlark (*Sturnella neglecta*), savannah sparrow (Passerculus sandwichensis), and foraging habitat for tricolored blackbirds (Agelaius tricolor). Other wildlife species common to these grassland communities include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), deer mouse (Peromyscus maculatus), California vole (*Microtus californicus*), and coyote (*Canis latrans*).

# 5.0 Special Status Species

Special status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the Federal Endangered Species Act (FESA) (50 CFR 17.11/17.12) (or formally proposed for listing) (64 FR 205, October 25, 1999; 57533-57547),
- Listed as endangered or threatened under the California Endangered Species Act (CESA) (or proposed for listing) (14 California Code of Regulations [CCR] 670.5),
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code (FGC, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Designated a Species of Concern by the California Department of Fish and Game,
- Defined as rare or endangered under the California Environmental Quality Act (CEQA), or
- Occurring on List 1 or 2 maintained by the California Native Plant Society.

We reviewed the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Inventory, and U.S. Fish & Wildlife Service (FWS) IPaC database for special status species potentially occurring within the project vicinity (i.e. five-mile radius). While there may be many special status plant and animal species occurring within five miles of the Assessment Area (Figure 6), we can refine the list of those species with any real potential of occurring in the Assessment Area by filtering our query for relevant onsite habitats, locations, and elevations. Out of this query, we further distill this list into those species of special significance in the area, and which have a higher potential to occur. A summary of the results of this selection can be found in Table 2.

In addition, we reviewed a select number of studies, including biological assessments and scientific surveys, for occurrences of special species known to have CNDDB occurrences within a five-mile radius of the Assessment Area (Figure 6).

### 5.1 Critical Habitat for Special Status Species

The Federal Endangered Species Act (FESA) requires the federal government to designate critical habitat for any listed species. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. There is no designated critical habitat for the special status species within five miles of the Assessment Area (Figure 7).

**5.2 Special Status Plants and Wildlife**

Three special status plant species, Sanford's arrowhead *(Sagittaria sandfordii)*, Dwarf Downingia (*Downingia pusilla*), and Woolly rose-mallow (*Hibiscus lasiocarpos var. occidentalis*) have a potential to occur in the Assessment Area.

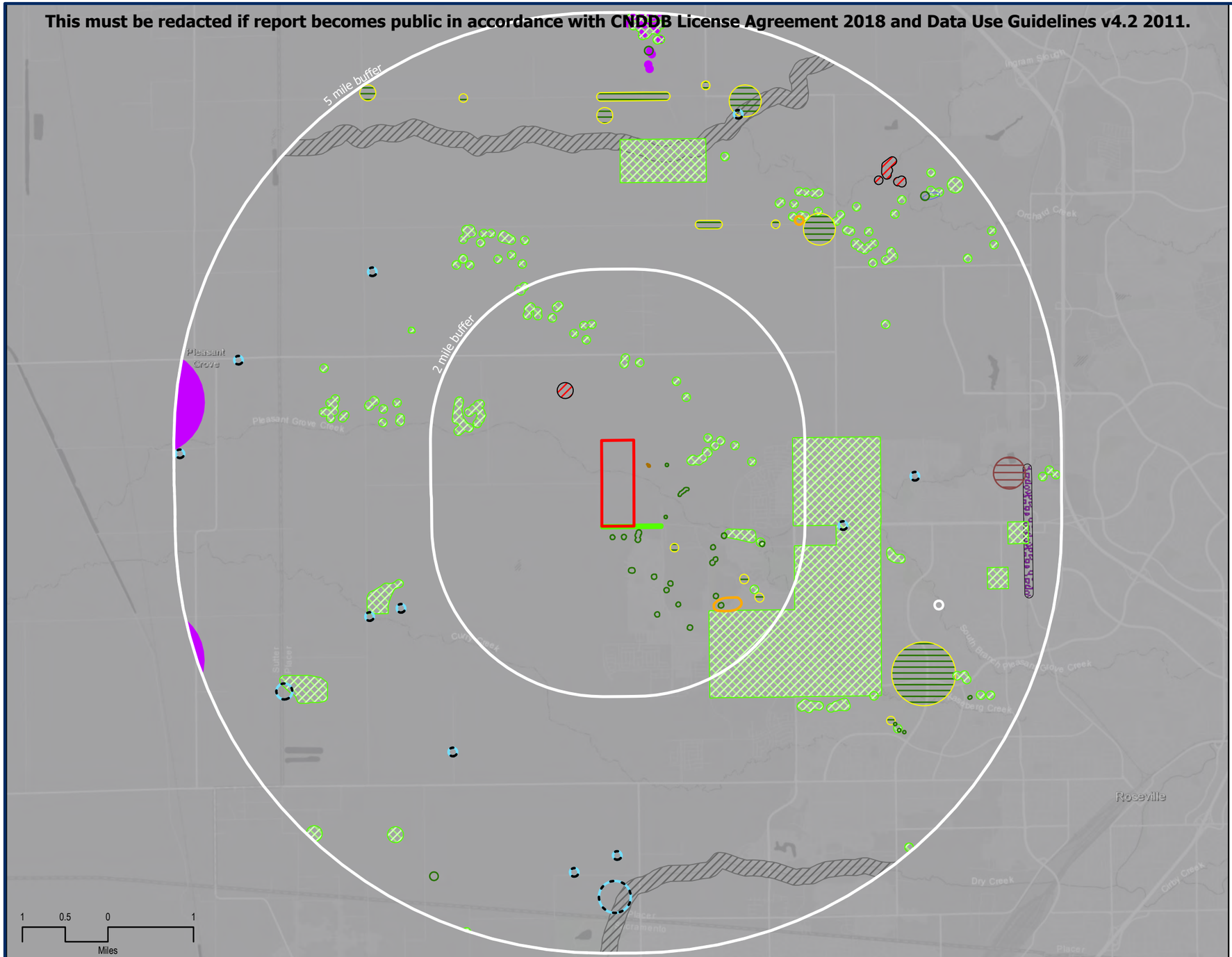
**1. Sanford's arrowhead** *(Sagittaria sandfordii)* – A member of the plantain family, this perennial herb is a 1B.2 rare plant species in California. It has long, narrow leaves which typically grow from a submerged stem. The flowers have green centers and white petals and are arranged in whorls above the water's surface. This plant is typically found in slow-moving or standing freshwater ponds, marshes, and ditches and could find habitat in Pleasant Grove Creek. However, there were no CNDDB occurrences within five miles of the Assessment Area, and it is concluded that this plant has a **very low** potential for occurrence in the Assessment Area. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022.

**2. Dwarf Downingia** (*Downingia pusilla*) – A small annual herb in the Campanulaceae (bellflower) family. The plant has slender, erect stems that can grow up to 10 cm tall, and it features small, tubular flowers that are usually blue with a white center and yellow throat. This species mainly occurs in vernal pools and wet soils. It is found in freshwater wetlands, foothill wetlands, valley grasslands, and wetland-riparian communities at elevations between 5 and 1,318 feet. The grasslands and the riparian edge along the channel in the Assessment Area may provide suitable habitat for this species. There are 13 reported CNDDB occurrences within five miles of the Assessment Area, the most recent 4.389 miles away in 2014, and the closest 0.07 miles away in 2000. Barnett Environmental found no sign of this species during the February 23 or July 21, 2022, site visit. Therefore, this species has a **moderate** potential to occur in the Assessment Area.

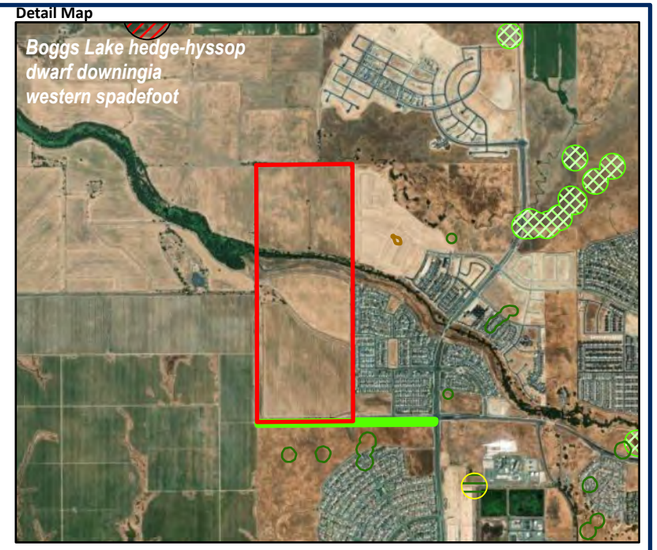
**3**. **Woolly rose-mallow** (*Hibiscus lasiocarpos var. occidentalis*) – A perennial herb that grows up to 2 meters tall. It is characterized by its large, heart-shaped leaves that are covered with a dense layer of woolly hairs, giving the plant a grayish-green appearance. The flowers are large and showy, typically white to pink with a deep red or purple center, and bloom from June to September. This species is typically found in freshwater marshes, wet meadows, and along the edges of rivers and lakes. The edges of Pleasant Grove Creek may provide suitable habitat for this species. There have been no nearby recorded CNDDB occurrences, and Barnett Environmental found no sign of this species during the February 23 or July 21, 2022, site visit. Therefore, this species has a **very low** potential to occur in the Assessment Area.

**4. Boggs Lake hedge-hyssop** (*Gratiola heterosepela)* – A small annual herb in the Plantaginaceae (plantain) family. The plant features narrow, opposite leaves and small, tubular flowers that are typically yellow. It blooms from April through August. This species is typically found in or near vernal pools and other shallow water habitats such as lake margins and mudflats. It thrives in clay soils that retain moisture during its growing season. This species is endemic to California and is primarily found in the Central Valley, the inner north coast ranges, the Sierra Nevada foothills, and the Modoc Plateau. There has been 1 recorded CNDDB occurrence within 5 miles, 0.153 miles away in 2008 and Barnett Environmental found no sign of this species during the February 23 or July 21, 2022, site visit. Therefore, this species has a **low** potential to occur in the Assessment Area.

**This must be redacted if report becomes public in accordance with CNDDB License Agreement 2018 and Data Use Guidelines v4.2 2011.**




Detail Map




- big-scale balsamroot 1
- Boggs Lake hedge-hyssop 2
- burrowing owl 3
- dwarf downingia 4
- legenere 5
- Red Bluff dwarf rush 6
- steelhead - Central Valley DPS 7
- Swainson's hawk 8
- tricolored blackbird 9
- vernal pool fairy shrimp 10
- vernal pool tadpole shrimp 11
- western spadefoot 12
- white-tailed kite 13
- Parcel APN (017-101-008-000)
- PUE

*CNDDB version July 2025. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area CDFW. Sources: Esri, DeLorme, HERE. Scale: 1:78,000, original map 11x17.*

# FIGURE 6 - CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB) RECORDED SPECIES OBSERVATION

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# Table2 - Special Status Species with the Potential to Occur in the Study Area

| Species | Special Status Code | Habitat | Potential for Occurrence | Rationale for Potential |
|---|---|---|---|---|
| **Amphibians** | | | | |
| western spadefoot<br>*Spea hammondii* | Proposed | The western spadefoot is predominantly a grassland species, although some populations can be found in pine-oak woodlands of the valley foothills. Western spadefoots require shallow, temporary pools or streams during the breeding season. | Low | The agricultural fields and the adjacent stream in the Assessment Area could provide potential habitat for this species. There are 10 reported CNDDB occurrences within five miles of the Assessment Area. The most recent was in 2016, 2.58 miles to the northwest, and the closest was 0.491 miles to the southeast in 1993. There was no sign of this species during the Barnett Environmental 2022 site visit. |
| **Fish** | | | | |
| steelhead - Central Valley DPS<br>*Oncorhynchus mykiss irideus pop.* | FT | Freshwater, brackish, or marine waters of temperate zones. The anadromous form, called steelhead, spawn and complete their early development in freshwater mountain streams, then migrate to spend their adult life in the ocean. In freshwater, they prefer cool water but have been known to tolerate water temperatures up to 24°C. | None | Current and the most likely future stream conditions, based on the location, gradient, soils, do not, and likely would not meet most, if any, of the requirements necessary to support anadromous species. There are two reported CNDDB occurrences within five miles of the Assessment Area. The closest and most recent was in 2007, 3.2 miles to the south of the Assessment Area. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 site visit. |
| chinook salmon - Central Valley spring-run ESU<br>*Oncorhynchus tshawytscha pop. 11* | FT, CT | Sacramento/San Joaquin flowing waters. Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Federal listing refers to populations spawning in Sacramento River and tributaries. | None | Central Valley spring-run Chinook salmon are primarily found in the Sacramento and San Joaquin River systems in California. This species is not known to occur within Pleasant Grove Creek. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| green sturgeon - southern DPS<br>*Acipenser medirostris pop. 1* | FT, SSC | The most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity Rivers. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock. | None | The Southern DPS of green sturgeon ranges from the Eel River in Northern California to the Sacramento River basin. This species is not known to occur within Pleasant Grove Creek. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| longfin smelt<br>*Spirinchus thaleichthys* | Proposed | In California, Longfin Smelt is historically found in the San Francisco Estuary and the Sacramento/San Joaquin Delta (Bay-Delta), Humboldt Bay, and the estuaries of the Eel River and Klamath River— and uses a variety of habitats from nearshore waters, to estuaries and lower portions of freshwater streams (Garwood 2017). | None | This species is found along the Pacific coast of North America, from Alaska to California. This species is not known to occur within Pleasant Grove Creek. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| Sacramento splittail<br>*Pogonichthys macrolepidotus* | SSC | Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes. Slow moving river sections, dead end sloughs. The basic life history pattern for the remaining Delta/Suisun Marsh populations is: (1) from November through February adults migrate upstream in pulses in response to flow events; (2) adults spawn on floodplains or flooded edge habitats in March and April and 1 then migrate back downstream; (3) embryos and larvae remain. | Low | Sacramento splittail are primarily found in estuarine and freshwater habitats. This species is known to be found within Pleasant Grove Creek. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit |

| Fish | | | | |
|---|---|---|---|---|
| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| *Chinook salmon – Central Valley fall run Oncorhynchus tshawytscha* | FT, CT | Central Valley fall-run Chinook salmon occupy large river systems and tributaries within the Sacramento and San Joaquin basins. The species requires cool, well-oxygenated water with gravel substrates for spawning and utilizes a range of freshwater and estuarine habitats during migration and juvenile | None | Central Valley fall-run Chinook salmon is not included on the UC Davis PISCES fish list for the watershed, but CNDDB BIOS range layers show the assessment area to be within the species known range. This species relies on large, perennial river systems for spawning, rearing, and migration. The project site does not contain perennial waterways or suitable migratory corridors capable of supporting Chinook salmon at any life stage. |
| *Chinook salmon – Sacramento River Oncorhynchus tshawytscha* | FE, CE | Sacramento River winter-run Chinook salmon are restricted to specific reaches of the Sacramento River and select tributaries. The species relies on cold, regulated flows and suitable gravel substrates for spawning and rearing, and utilizes riverine and estuarine habitats during migration. | None | Sacramento River winter-run Chinook salmon is not included on the UC Davis PISCES fish list for the watershed, but CNDDB BIOS range layers show the assessment area to be within the species known range.. This federally listed run is restricted to specific reaches of the Sacramento River and requires cold, well-regulated flows and suitable spawning gravels. The project site lacks perennial aquatic habitat and does not provide hydrologic connectivity to |
| *hardhead*<br>*Mylopharodon conocephalus* | SSC | Hardhead occur in medium to large rivers and streams with moderate flows, typically occupying deep pools and runs with gravel or cobble substrates. The species is most commonly associated with warm freshwater systems in the Sacramento and San Joaquin river basins and their major tributaries. | None | Hardhead occurs within the broader watershed but is typically associated with cool, clear, fast-flowing streams with gravel or cobble substrates. The segment of Pleasant Grove Creek within the project site is warm, slow-moving, and highly sedimented, and lacks the hydraulic and substrate conditions required to support the species. Based on habitat conditions within the project reach, suitable habitat is not present and the species is not expected to occur |
| *Pacific lamprey*<br>*Entosphenus tridentatus* | SSC | Pacific lamprey occur in coastal and inland river systems, utilizing freshwater streams for spawning and larval development and larger rivers or marine environments during other life stages. Spawning typically occurs in gravel substrates, while larvae occupy fine sediments in low-velocity depositional | None | Pacific lamprey require clean gravel substrates for spawning and fine sediments in low-velocity areas for larval development. The project reach lacks appropriate substrate conditions and is characterized by warm, sedimented waters. Suitable spawning or rearing habitat is not present, and occurrence within the project site is not expected. |
| *riffle sculpin*<br>*Cottus gulosus* | SSC | Riffle sculpin are found in cold, well-oxygenated streams and rivers with permanent flow. They are closely associated with riffles and runs containing coarse substrates such as gravel, cobble, and boulders, where they occupy interstitial spaces along the streambed. | None | Riffle sculpin are restricted to cold, well-oxygenated headwater streams with permanent flow and coarse rocky substrates. These conditions are not present within the project reach of Pleasant Grove Creek. Although the species may occur in upper portions of the watershed, suitable habitat is absent within the project site, and occurrence is not expected. |
| *Sacramento hitch*<br>*Lavinia exilicauda* | SSC | Sacramento hitch inhabit low-gradient rivers, sloughs, floodplain wetlands, and slow-moving freshwater habitats. The species is associated with backwaters, off-channel habitats, and areas with abundant aquatic vegetation within the Sacramento–San Joaquin watershed. | None | Sacramento hitch is associated with low-gradient rivers, sloughs, and floodplain habitats with slow-moving freshwater. The species is documented at the watershed level and occurs within the CNDDB BIOS range. While site-specific habitat data are insufficient to conclusively rule out occurrence within the project reach, habitat quality appears marginal. |
| *western river lamprey*<br>*Lampetra ayresii* | SSC | Western river lamprey inhabit rivers and streams with permanent flow, where adults spawn in gravel substrates and larvae develop in fine sediments along stream margins. The species is associated with freshwater systems that provide both spawning habitat and low-velocity areas suitable for larval | None | Western river lamprey occupy freshwater systems with suitable gravel substrates for spawning and depositional areas for larval burrowing. Habitat conditions within the project reach do not meet these requirements. As with other lamprey species, suitable habitat is absent within the project site and occurrence is not expected. |

| Birds | | | | |
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| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| American peregrine falcon *Falco peregrinus anatum* | SSC | One of the most widely distributed falcons and its range includes wetlands, deserts, forests and islands. Breeding habitats include a variety of locations from cliffs in uninhabited areas to tall buildings or bridges within the urban landscape. They thrive in mountainous areas with chaparral vegetation and on coasts where shorebirds are common. | None | The Assessment Area does not contain any buildings or cliffs that could act as roosting habit for this species. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| American white pelican *Pelecanus erythrorhynchos* | SSC | This species habitat is in lakes, marshes, and salt bays. In the breeding season, its habitat is mostly inland, nesting on isolated islands in lakes and feeding on shallow lakes, rivers, marshes. Feeding areas may be miles from nesting sites. Also breeds locally on coastal islands. Flocks in migration stop on lakes, rivers. This species winters mainly along the coast, on shallow, protected bays and estuaries, also on large lakes in warm climates. | None | There are no lakes, marshes, or rivers in the Assessment Area to provide habitat for this species. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area, and Barnett Environmental saw no sign of this species during its February 23 or July 21 2022 site visit. |
| bald eagle *Haliaeetus leucocephalus* | FP | They prefer lakes and reservoirs with lots of fish and surrounding forests. In the winter, bald eagles can be seen around unfrozen lakes and hunting along coastlines, reservoirs, and rivers. | None | The Assessment Area does not contain any lakes or large rivers that could provide foraging habitat for this species. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| black tern *Chlidonias niger* | SSC | Black terns nest semi-colonially and forage for aerial insects and aquatic invertebrates in freshwater marshes in northeastern CA and in rice fields in the Sacramento and in upper San Joaquin Valleys. | Very low | Pleasant Valley Creek can provide marginal foraging habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental found no sign of this species during the February 23 or July 21 2022 site visit. |
| burrowing owl *Athene cunicularia* | SSC | Burrowing owls live in burrows dug by other animals in open, treeless spaces. Favored nest burrow sites are those with sandy locations and areas with low vegetation around the burrows. | Low | The agricultural fields can provide potential habitat for this species, providing the vegetation is kept short. There are two reported CNDDB occurrences within five miles of the Assessment Area. The closest and most recent was in 2008, 3.16 south miles to the south of the Assessment Area. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 site visit. |
| grasshopper sparrow *Ammodramus savannarum* | SSC | Grasshopper sparrows utilize prairie and cultivated grasslands, weedy fallow fields and alfalfa fields. | Very low | The agricultural fields could provide suitable habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| loggerhead shrike *Lanius ludovicianus* | SSC | In California, loggerhead shrike breed primarily in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They require tall shrubs, trees, fences, or powerlines for hunting perches and pair maintenance. | Very low | The loggerhead shrike may find the Assessment Area suitable as foraging habitat. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| northern harrier *Circus cyaneus* | SSC | These birds inhabit grasslands, fields, marshes, upland prairies, savannas and alpine meadows. They also occur in wetland habitats and upland habitats such as desert steppe. They avoid forested and mountainous areas. | Very low | The grasslands and agricultural fields in the Assessment Area can provide suitable habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 site visit. |

| Birds | | | | |
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| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| redhead<br>*Aythya americana* | SSC | Redheads usually nest in freshwater emergent wetlands where dense stands of cattails and tules are interspersed with areas of deep, open water. In winter and migration, Redheads forage and rest on large, deep bodies of water and may form rafts far from shore. They secure food mostly by diving in water >1 m in depth. | Low | There are no deep waters on the Assessment Area to provide suitable habitat for the redhead. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| golden eagle<br>*Aquila chrysaetos* | FP | This species favor partially or completely open country, especially close to mountains, hills and cliffs. They can be found in a variety of habitats, ranging from grassland to coniferous forests, farmlands and areas along rivers and streams. | None | There are no cliffs or vertical faces in the Study Area that may provide suitable habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during its February 23 or July 21 2022 site visit. |
| short-eared owl<br>*Asio flammeus* | SSC | Found in open country supporting high numbers of small rodents. Nests most commonly on tundra, inland and coastal prairies, extensive marshes, farmland. In winter also found in stubble fields, small meadows, coastal dunes, and shrubby areas. | Very low | The short-eared owl may encounter find habitat in the Assessment Area. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| song sparrow<br>*Melospiza melodia pop. 1* | SSC | Brushy fields, streamsides, shrubby marsh edges, woodland edges, hedgerows, well-vegetated gardens. Some coastal populations live in salt marshes | Very low | This bird could find nesting habitat in the vegetated riparian area of Pleasant Grove Creek. There were no CNDDB occurrences within five miles of the Study Area. There have been no reported CNDDB occurrences within a five-mile radius. No song sparrows were observed within the Study Area during Barnett Environmental's field surveys. |
| Swainson's hawk<br>*Buteo swainsoni* | CT | Open areas like savannas, grasslands, steppes, and cultivated lands. | Low | The large open agricultural field provide foraging habitat for this species. The are 12 reported CNDDB occurrences within five miles of the Assessment Area. The most recent occurrence was in 2013, 2.87 miles to the southwest. The closest was 2.39 miles to the southwest in 2001. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 site visit. |
| tricolored blackbird<br>*Agelaius tricolor* | CT, SSC | This species forages in open habitat such as farm fields, pastures and large lawns. Within the Central Valley, breeding colonies live in the rice-growing regions of the Sacramento Valley and in the pasturelands of the lower Sacramento Valley and San Joaquin Valley Must have open water. | Low | The rice fields could provide suitable foraging habitat for the tricolored blackbird. There are two reported CNDDB occurrences within five miles of the Assessment Area. The most recent was in 2017, 4.12 miles to the southeast, and the closest was in 2014, 0.628 miles to the southeast. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| western yellow-billed cuckoo<br>*Coccyzus americanus* | FT, CE | The habitat of the Yellow-billed Cuckoo in western North America is forested stream-sides. They require large blocks of riparian habitat for nesting, including stands of willows and cottonwoods with dense, low vegetation are particularly preferred. | Very low | While the riparian woodland habitat along Pleasant Grove Creek indeed may exist in patch sizes appropriate for breeding cuckoos (as is the case immediately west of the Study Area), it is at best, no more than 50' wide through the Study Area and is therefore extremely unlikely to support breeding by the species at this location. There are no reported CNDDB occurrences within five miles of the Assessment Area, and there was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| white-tailed kite<br>*Elanus leucurus* | FP | Found in a wide variety of open habitats in North America, including open oak grassland, desert grassland, farm country, marshes. The main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents. | Low | The agricultural fields provide potential foraging habitat for this species. However, there is only one reported CNDDB occurrence within five miles of the Assessment Area, 3.63 miles to the southeast in 1998. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |

| Birds | | | | |
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| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| yellow-headed blackbird<br>*Xanthocephalus xanthocephalus* | SSC | This species always build their nests over water/ mainly marshes. They form large flocks and forage in agricultural fields where they feed on rice and weed seeds. | Low | The rice fields can provide foraging habitat for this species. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during its February 23 or July 21 2022 site visit. |
| bank swallow<br>*Riparia riparia* | CT | Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks or cliffs with fine-textured or sandy soils near streams, rivers, lakes, ocean to dig nesting hole. | None | Bank swallows prefer habitats with vertical banks and cliffs made of fine-textured, sandy soil for nesting, which the Study Area does not have. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit |
| California black rail<br>*Laterallus jamaicensis* | CT, FP | California rails inhabit tidal marshes and freshwater marshes. They inhabit the drier parts of wetlands. | None | The California black rail inhabits tidal marshes, freshwater marshes, and wet meadows, none of which are located within the Study Area. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| purple martin<br>*Progne subis* | SSC | Occurs as a summer resident and migrant, primarily from mid-March to late September. Purple Martins are in forest and woodland areas at low to intermediate elevations. Nest height is in low canopies. Most tree nest sites are located in the upper slopes of hilly and mountainous terrain. Martins seldom use snags along canyon bottoms or sites with dense vegetation at or above nest height. They are also influenced by the availability of aerial insects, in mesic regions, near large wetlands and other water bodies. | Very low | Purple martins typically inhabit open areas near water, such as lakes, ponds, and rivers, where there are abundant flying insects. The water of Pleasant Grove Creek may provide suitable foraging habitat for this species. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| **Crustaceans** | | | | |
| vernal pool tadpole shrimp<br>*Lepidurus packardi* | FE | Found in vernal pools that are clear to murky and 50-84 degrees Fahrenheit, and the pools range from 55 square feet (5 square meters) to almost 90 acres (36 hectares). | None | There are no vernal pools located in the Study Area to provide suitable habitat for this species. There are 3 CNDDB occurrence within 5 miles of the Study Area, the closest & most recent 4.3 miles away in 2013. Barnett Environmental found no sign of this species during the February 23 or July 21 2022 site visit. |
| vernal pool fairy shrimp<br>*Branchinecta lynchi* | FT | Vernal pool fairy shrimp occur primarily in vernal pools, seasonal wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer. | None | There are no vernal pools or swales located in the Study Area to provide suitable habitat for this species. There are 32 CNDDB occurrence within 5 miles of the Study Area, the most recent 2.522 miles away in 2018, and the closest 0.622 miles away in 2016. Barnett Environmental found no sign of this species during the February 23 or July 21 2022 site visit. |
| conservancy fairy shrimp<br>*Branchinecta conservatio* | FE | Conservancy fairy shrimp inhabit rather large, cool-water vernal pools with moderately turbid water. The pools generally last until June. However, the shrimp are gone long before then. They have been collected from early November to early April. | None | The conservancy fairy shrimp inhabits larger, cooler-water pools with moderately turbid water. These habitats do not occur onsite, precluding the occurrence of these species at this location. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area, and there was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |

| Insects | | | | |
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| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| valley elderberry longhorn beetle *Desmocerus californicus* | FT | The species is nearly always found on or close to its host plant, red or blue elderberry (Sambucus species), along rivers and streams. | None | There are no signs of this species' host plant, the Mexican or blue elderberry, in the Assessment Area, and thus no habitat for the beetle is present. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| Crotch's bumble bee *Bombus crotchii* | Candidate | Primarily inhabits open scrublands, grasslands, chaparral, desert margins, and creosote scrub in semi-urban environments. It can be found in agricultural areas where there are ample flowering plants for foraging. It typically prefers hotter and drier environments than other bumblebee species. These bees require habitats with diverse floral resources and suitable nesting sites, typically in abandoned rodent burrows or other cavities in the ground. | Moderate | These bees typically forage on plants belonging to families such as Fabaceae, Polynucleate, and Asteraceae. Given the Crotch's bumblebee's wide variety of potential foraging species that it may use as habitat, there is a high likelihood the Study Area contains foraging habitat for this species. There have been no recorded CNDDB occurrences within 5 miles, nor was this species observed during the Barnett Environmental February 23 or July 21 2022 site visit. Therefore, this species has a moderate potential to occur in the Study Area. |
| *Monarch butterfly* *Danaus plexippus* | PT | Monarch butterflies occur in a variety of open habitats including grasslands, agricultural fields, roadsides, and disturbed areas where nectar sources are available. Larvae are dependent on milkweed species (Asclepias spp.), while adults utilize diverse flowering plants during breeding and migration. | Very low | Monarch butterflies may occur transiently within the region during migration. A small, isolated patch of milkweed was observed near the project site; however, habitat availability is minimal and fragmented. The site does not provide suitable breeding, roosting, or overwintering habitat. Occurrence is expected to be limited to occasional transient or foraging individuals, if at all. |

| Mammals | | | | |
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| American badger *Taxidea taxus* | SSC | Badgers live in dry, open grasslands, fields, and pastures. They can also live in deserts and marshes. They are found from high alpine meadows to sea level. Mostly nocturnal, but can be seen being active in early morning. | Very Low | The agricultural fields and grasslands in the Assessment Area provide potential habitat for this species. There are no reported CNDDB occurrences within five miles of the Assessment Area, and Barnett Environmental found no sign of this species during the February 23 or July 21 2022 site visit. |
| western mastiff bat *Eumops perotis californicus* | SSC | Ideal habitat for this bat must have large open area with roost sites having vertical faces. They will roost in small colonies in rock fissures in high cliff faces. Because of their large size, they need at least 20 feet of vertical drop from their roosts to gain enough speed for flight. | None | This species requires tall vertical faces for roosting, which are not present in the study area. There are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental found no sign of this species during the February 23 or July 21 2022 site visit. |
| Pallid bat *Antrozous pallidus* | SSC | This species is typically found in arid or semi-arid habitats, often in mountainous or rocky areas near water. They often roost in rock crevices, caves, mine shafts, under bridges and in tree hollows. | Very low | The project site contains large oak trees that may provide roosting habitat for this species. There are no reported CNDDB occurrences within five miles of the Study Area, and there was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site survey. |
| ringtail *Bassariscus astutus* | FP | Occurs in various riparian habitats, and in brush stands of most forest and shrub habitats, at low to middle elevations. | Very low | The large oak trees in the Study Area could provide den habitat for this species. No ringtail were observed during Barnett Environmental's February 23 or July 21 2022 field survey. |
| pallid bat *Antrozous pallidus* | SSC | This species is typically found in arid or semi-arid habitats, often in mountainous or rocky areas near water. They often roost in rock crevices, caves, mine shafts, under bridges and in tree hollows. | None | There are no mountainous or rocky areas in the Study Area to provide suitable habitat for this species. There are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during its February 23 or July 21 2022 site visit. |

| Mammals | | | | |
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| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| western red bat<br>*Lasiurus blossevillii* | SSC | Western red bats roost along woodland borders, riparian corridors including oak riparian habitats, and urban areas with large trees. Other favored roosting trees include cottonwoods, sycamores, walnuts, and older willows with dense leaf clusters. This species can be found in habitats and agricultural areas adjacent to streams and rivers at some distance from known roosting habitats. | Very low | Pleasant Grove Creek's riparian edge could provide potential habitat for this species as willows and cottonwoods are favored roosting spots. However, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during its February 23 or July 21 2022 site visit. |
| townsend's big-eared bat<br>*Corynorhinus townsendii* | SSC | This species is found on broadleaved upland forests, chaparral, coniferous forests, riparian woodlands, as well as valley and foothill grasslands. They prefer large open areas near caves and are very sensitive to human disturbance. Forested and open (edge) habitat. Roosts from ceiling frequently hanging by one foot. Hibernates in caves and mines near entrances. | None | There are no caves in or in close proximity to the Assessment Area to provide roosting habitat for this species. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during its February 23 or July 21 2022 site visit. |
| **Plants** | | | | |
| Red Bluff dwarf rush<br>*Juncus leiospermus var. leiospermus* | 1B.1 | Found along the edges of vernal pools and swales, often on basalt, in the northern Sacramento Valley and adjacent foothills. | None | There are no vernal pools or swales located in the Study Area to provide suitable habitat for this species. There is one recorded CNDDB occurrence within 5 miles of the Study Area, 4.2 miles away in 1982. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 field survey. |
| big-scale balsamroot<br>*Balsamorhiza macrolepis* | 1B.1 | This perennial is found in foothill woodland and valley grassland communities. It is typically found on slopes and has a strong, 2.5, ultramafic soils affinity | None | The grasslands and agricultural fields in the Assessment Area may provide suitable habitat for this species, however, there are no ultramafic soils located in the Study Area. There is one CNDDB occurrence within five miles of the Assessment Area, 4.546 miles away in 1958. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 field survey. |
| legenere<br>*Legenere limosa* | 1B.1 | Valley grasslands, freshwater wetlands, wetland-riparians | None | There are no suitable wetlands for this species in the Study Area. There is one reported CNDDB occurrence within five miles of the Assessment Area, 4.406 miles away in 2002. Barnett Environmental saw no sign of this species during the February 23 or July 21 2022 field survey. |
| Boggs Lake hedge-hyssop<br>*Gratiola heterosepala* | CE, 1B.2 | Freshwater wetlands, wetland-riparian, especially in clay soils | Low | There is marginally suitable habitat for this species along edges of Pleasant Grove Creek. However, there is only one reported CNDDB occurrence within five miles of the Assessment Area, 0.153 miles to the east in 2008. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| Sanford's arrowhead<br>*Sanford's arrowhead* | 1B.2 | Occurs in Wetlands, shallow freshwater marsh, wetland -riparian. It has mostly disappeared from the Central Valley and is not present in southern California. | Very low | This plant could find habitat in the slow-moving waters of Pleasant Grove Creek. There were no CNDDB occurrences within five miles of the Study Area. No Sanford's arrowhead were observed during Barnett Environmental's February 23 or July 21 2022 field survey. |
| dwarf downingia<br>*Downingia pusilla* | 2B.2 | This species occurs in vernal pools and other wet areas such as ditches in California and the country of Chile. It is found in freshwater wetlands, foothill wetlands, valley grasslands, and wetland-riparian communities at elevations between 5 and 1,318 feet. | Moderate | The grasslands and the riparian edge along the channel in the Study Area may provide suitable habitat for this species. There are 13 reported CNDDB occurrences within five miles of the Assessment Area, the most recent 4.389 miles away in 2014, and the closest 0.07 miles away in 2000. Barnett Environmental found no sign of this species during the February 23 or July 21 2022 site visit. |

| Species | Special Status Code | Habitat | Potential for Occurrence | Rationale for Potential |
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| **Plants** | | | | |
| Ahart's dwarf rush<br>*Juncus leiospermus var. ahartii* | 1B.2 | This species occurs in wetlands, primarily in vernal pools. It is found in freshwater wetlands, valley grasslands, and wetland riparian communities. It is known to thrive on gopher rounds. Plants associated with Ahart's dwarf rush include numerous annual graminoids and forbs that specialize in the higher, less mesic edges of vernal pools. | None | Ahart's dwarf rush is typically found in vernal pools, wet meadows, and swales, none of which are located within the Study Area. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| hispid salty bird's-beak<br>*Chloropyron molle ssp. hispidum* | 1B.1 | Hispid salty bird's-beak grows in alkaline and saline soils of marshes and playas in scattered locations throughout the Central Valley. They are found in alkali sink, valley grasslands, and wetland-riparian communities. | None | This species is typically found in coastal salt marshes, alkali flats, and other saline habitats, none of which are located within the Study Area. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| pincushion navarretia<br>*Navarretia myersii ssp. myersii* | 1B.1 | Found along the edges of vernal pools and swales, often on basalt, in the northern Sacramento Valley and adjacent foothills | None | Pincushion navarretia is typically found in vernal pools and other seasonally wet habitats, which are not located within the Study Area. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| woolly rose-mallow<br>*Hibiscus lasiocarpos var. occidentalis* | 1B.2 | This plant grows around ditches and other wetland areas. | Very low | Woolly rose-mallow typically inhabits freshwater marshes, wetlands, and the edges of rivers and lakes. The edges of Pleasant Grove creek may provide marginal suitable habitat for this species. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |
| Spicate Calycadenia<br>*Calycadenia spicata* | 1B.3 | Calycadenia spicata is associated with valley grassland and foothill woodland communities, typically occurring on open slopes within annual grasslands or woodland margins. The species is generally found in relatively open, low-relief grassland settings and foothill environments where native herbaceous cover is present. | None | Although annual grassland communities are mapped within the Assessment Area, site conditions consist primarily of disturbed and previously cultivated lands that lack intact valley grassland or foothill woodland structure. The Assessment Area does not support the native plant community composition or relatively undisturbed grassland conditions typically associated with Calycadenia spicata. |
| **Reptiles** | | | | |
| coast horned lizard<br>*Phrynosoma blainvillii* | SSC | This species occurs in valley-foothill hardwood, conifer and riparian habitats, as well as pine-cypress, juniper, and annual grassland habitats. Its elevational range extends up to 5900 feet the mountains of southern California. | Very low | The sandy loams along Pleasant Grove Creek provide potential habitat for this species. In addition, there are no preferred grasslands or shrub habitat in the Assessment Area. However, there are no reported CNDDB occurrences within five miles of the Assessment Area, and Barnett Environmental observed no sign of this species during its February 23 or July 21 2022 site visit. |
| giant gartersnake<br>*Thamnophis gigas* | FT, CT | Agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley. | Very low | Although the rice fields and stream provide suitable habitat for the giant garter snake, the property is just over seven (7) miles east of the eastern edge (East Main Drain / Pleasant Grove Creek Canal) of the known range for this species (Sutter & Sacramento Counties). The subject property sits at an elevation of 73'-88' msl, putting it at the extreme edge of the snake's elevational range. In addition, there are no reported CNDDB occurrences within five miles of the Assessment Area. Barnett Environmental saw no sign of this species during its February 23/July 21 2022 site visits. |

| Reptiles | | | | |
|---|---|---|---|---|
| **Species** | **Special Status Code** | **Habitat** | **Potential for Occurrence** | **Rationale for Potential** |
| western pond turtle<br>*Actinemys marmorata* | Proposed | The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches and reservoirs. Turtles bask on land or near water on logs, branches or boulders. | Very low | Both Pleasant Grove Creek and the irrigation canal provide suitable wetland habitat and basking spots for the western pond turtle. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21 2022 site visit. |

**Special Status Species Codes:**

*FE = Federally listed as Endangered*
*FT = Federal listed as Threatened*
*CE = State listed as Endangered*
*CT = State listed as Threatened*
*Rare = State listed as Rare*
*FP = State, Fully Protected*
*SSC = State Species of Special Concern*

*1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California*
*1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California*
*2B.1 = Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California*
*2B.2 = Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California*

**Potential for Occurrence Codes:**

*None: No suitable habitat for the special status species within the Assessment Area*

*Very Low: Either the special status species is known to occur within five miles and there is marginal suitable habitat exists in the Assessment Area, or the Assessment Area provides suitable habitat, but the species is not known to occur within a five-mile radius.*

*Low: Marginally suitable habitat exists in the Assessment Area and the special status species occurs within 5 miles but surrounding urban land use conditions and regularity of human activity make it unlikely that the species occurs in the Assessment Area.*

*Moderate: The special status species is known to occur within a five-mile radius and the Assessment Area contains suitable habitat, however surrounding urban land use conditions and onsite disturbance reduce the likelihood of occurrence.*

*High: The Assessment area provides suitable habitat and there is either documentation of species occurrence within a five-mile radius or evidence gathered by a professional surveyor during an onsite field assessment.*

*Present: Species known to occur within the Assessment Area based on record search and/or evidence collect during onsite field surveys.*


# FIGURE 7 - CRITICAL HABITAT

Date: October 28, 2025

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**5.3 Special Status Wildlife**

**Federally Listed Animal Species**

There are five federally listed animals with a potential to occur in the Assessment Area (Appendix B, Table 2):

**1. Steelhead – Central Valley DPS** *(Oncorhynchus mykiss irideus pop. 11)* – Listed as threatened by the federal government, Steelhead – Central Valley DPS. Historically, adult Central Valley steelhead were relatively small compared to coastal steelhead, rarely exceeding 24 inches and a few kg (about 6 pounds). Their slender body type allows them to undertake long and difficult migrations far inland to Central Valley rivers. Today, all adult Central Valley steelhead are winter-run fish, beginning their upstream migrations to fresh water during peak flows between December and February. Returning adults are mostly three to four years old and typically spawn from February to April. According to Bailey's (2003) assessment of Pleasant Grove Creek, the location, gradient, soils, and other factors associated with this occasionally intermittent creek create only a **very low** potential to support anadromous fish populations. Bailey further posits that current and the most likely future stream conditions do not, and likely would not meet most, if any, of the requirements necessary to support anadromous species. He continues that while future habitat and flow volume conditions could conceivably change to support a small steelhead population in the uppermost portion of the watershed, this is very unlikely. There are two reported CNDDB occurrences within five miles of the Assessment Area. The closest and most recent was in 2007, 3.2 miles to the south of the Assessment Area. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022.

**2. Giant garter snake** *(Thamnophis gigas)* – The giant garter snake is olive to brown with a cream, yellow or orange stripe running down their back, and two light-colored stripes running along each side. They can also have a checkered pattern of black spots between the back and side stripes. Individuals in the northern Sacramento Valley tend to be darker with more pronounced stripes. The snake's underside ranges in color from cream to orange to olive brown to pale blue, with or without markings. When giant garter snakes are about to shed their skin, their patterns and coloration may be obscured. This reptile is found from sea level to about 160 feet in or within 10 feet of perennial waters or temporary, slow-moving waters such as sloughs, irrigation canals, drainage ditches, and flooded rice fields during summer and in underground hibernacula within 200 feet of these waters during winter. Garter snake habitat is typically devoid of a dense tree canopy and usually contains tule, cattail, blackberry, mustard, various thistles, and annual and perennial grasses. While the agricultural fields combined with the slow-moving waters in Pleasant Grove Creek provide suitable habitat for this species, there are no reported CNDDB occurrences within five miles of the Assessment Area, and concluded there is a **very low** potential to occur. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022.

**3. Yellow-billed cuckoo** *(Coccyzus americanus)* – Listed as threatened by the U.S. Fish and Wildlife, yellow-billed cuckoos are slender, long-tailed birds. They usually sit stock still, even hunching their shoulders to conceal their crisp white underparts, as they hunt for large caterpillars. Bold white spots on the tail's underside are often the most visible feature on a shaded perch. Migrating yellow-billed cuckoos have been found in coastal scrub, second-growth forests and woodlands, hedgerows, forest edges, and in smaller riparian patches than those used for breeding. Wintering yellow-billed cuckoos generally use woody lowland vegetation near fresh water. Yellow-billed cuckoos use

wooded habitat with dense cover and water nearby, including woodlands with low, scrubby vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. The woody vegetation along Pleasant Grove Creek includes willow trees that could provide potential habitat for this species; however, the Assessment Area itself is largely devoid of any shrubs or trees and only provides marginally suitable foraging habitat that is connected to woody thickets further to the west, concluding that this species has a **very low** potential to occur. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022.

**4. Vernal pool fairy shrimp** (*Brachinecta lynchi)* – This species is listed as threatened by the U.S. Fish and Wildlife Service. It is a slender, translucent crustacean generally less than one inch in length. They swim on their back by slowly moving their 11 pairs of swimming legs. Habitat is grassland vernal pools or similar seasonal wetlands. They require cool water with low alkalinity and low total dissolved solids and tend to be found in smaller pools about six inches (fifteen centimeters) deep that stay flooded for relatively short periods of time. Vernal pool fairy shrimp typically hatch when the first rains of the year fill vernal pools. Adult fairy shrimp live for only one season while there is water in the pools. There are 32 reported CNDDB occurrences within five miles of the Assessment Area. The closest was 0.628 miles to the east of the Assessment Area in 2014. The most recent was in 2017, 4.126 miles. Therefore, this species has a **moderate** potential to occur in the Assessment Area.

**5. Vernal pool tadpole shrimp** (*Lepidurus packardi)* – This crustacean is listed as endangered by the U. S. Fish and Wildlife Service. Vernal pool tadpole shrimp have a shield-like cover called a carapace and has a short paddle between its tails. They can be mottled olive-green, brown or gray. Their abdomen sticks out behind the carapace and ends in two long, thin tails. Length of adults range from 0.59 to 3.3 inches. This species lives in a wide variety of ephemeral wetland habitats with waters ranging from 50 to 84 degrees Fahrenheit. Typically, they are found in habitats that are deeper than 4.7 inches and retain water from between 15 and 30 days. There are 3 reported CNDDB occurrences within five miles of the Assessment Area. The closest and most recent was 4.3 miles from the Assessment Area in 2013. Therefore, this species has a **moderate** potential to occur in the Assessment Area.

**6. Monarch Butterfly** (*Danaus plexippus)* – This species of butterfly has two pairs of brilliant orange-red wings, featuring black veins and white spots along the edges. Males possess distinguishing black dots along the veins of their wings and are slightly bigger than females. Each adult butterfly lives only about four to five weeks. Monarch butterflies are most often found in prairies, meadows, grasslands, and along roadsides. While they feed on the nectar of several various flowers, they only breed where milkweeds are found. While there have been no recorded CNDDB occurrences within five miles of the Assessment Area, the Barnett Environmental site visits conducted on February 23 and July 21, 2022 revealed the presence of a small amount of narrow-leaved milkweed on the site. Therefore, this species has a **very low** potential for occurrence within the Study Area.

**Federal Proposed Threatened Species**

The three species listed below are proposed as threatened under the Federal Endangered Species Act. Two of these species are also protected by CDFW as a California species of special concern.

**2. Western Pond Turtle** (*Actinemys marmorata*) – Listed as an SSC in California and as a Proposed Species for federal listing, the western pond turtle is a small to medium-sized turtle in the Emydidae family, reaching between seven and nine inches in length. Its dorsal color is usually dark brown or dull olive, with or without streaking. Adult turtles have a yellowish belly, with dark blotches and black spots or lines on top of their heads. The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs. They bask on land or near water on logs, branches, or boulders. Both Pleasant Grove Creek and the irrigation canal provide suitable wetland habitat and basking spots for the western pond turtle. There are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022. Therefore, this species has a **very low** potential to occur in the Assessment Area.

**3. Western Spadefoot** (*Spea hammondii*) – Listed as an SSC in California and as a Proposed Species for federal listing, the western spadefoot is a small, stout-bodied toad with short legs and warty skin. It is greenish, brown, cream, or gray above and unmarked and whitish below. This species is found in a variety of habitats, including coastal sage scrub, chaparral, oak woodlands, grasslands, washes, and floodplains along the California coast, Central Valley, and Sierra Nevada foothills. The agricultural fields and the adjacent stream in the Assessment Area could provide potential habitat for this species. There are 10 reported CNDDB occurrences within five miles of the Assessment Area. The most recent was in 2016, 2.58 miles to the northwest, and the closest was 0.491 miles to the southeast in 1993. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022. Therefore, this species has a **low** potential to occur in the Assessment Area.

**California Listed Species**

There are two state-listed animals with a potential to occur in the Assessment Area (Appendix B, Table 2):

**1. Swainson's hawk** (*Buteo swainsoni)* – This raptor is listed as threatened by the state of California. Swainson's hawk is a medium-sized raptor, approximately 19-22 inches in length and weighing between 1.5 to 3.5 pounds. Light-morph adults are white on the underparts with a dark, reddish "bib" on the chest and a noticeable white throat and face patch, while dark-morph birds are dark brown except for a light patch under the tail. Its habitat is great basin grassland, riparian forest and woodlands, and valley and foothill grasslands. Swainson's hawk breeds in grasslands with scattered trees, juniper-sage flats, savannahs, and agricultural or ranch lands with groves or lines of trees.

Swainson's hawk has been observed foraging but not nesting within the adjacent Amoruso Ranch Property during 2011 surveys (ECORP 2011b as referenced in ECORP 2015). In addition, ECORP Consulting observed an active Swainson's hawk nest in June of 2015 within a lone tree south of West Sunset Boulevard, east of the Amoruso Ranch Property. The active nest lies within a half-mile of the eastern edge of the Amoruso Ranch Property (ECORP 2015). Nesting is presumed to have occurred in the Creekview Specific Plan area to the south of the Amoruso Ranch Property (City of Roseville 2011). Potential nesting habitat includes the larger trees in the southern portion of the Amoruso Ranch Property and the Reason Farms improvements area along University Creek, as well as trees along Pleasant Grove Creek. There is only one reported CNDDB occurrence within five miles of the Assessment Area, 2.76 miles to the southwest in 1982, and there was no sign of this species

during the Barnett Environmental February 23 or July 21, 2022, site visit. It is concluded that Swainson's hawks have a **low** potential for occurrence in the Assessment Area.

**2. Tricolored blackbird** (*Agelaius tricolor)* – The tricolored blackbird is a passerine bird of the family Icteridae. The common name is taken from the male bird's distinctive white stripes underneath their red shoulder patches, or "epaulets", which are visible when the bird is flying or displaying. From afar, tricolored blackbirds have a stocky, broad-shouldered look and, when perched, often look humpbacked. Like other members of the blackbird family, they have a slender conical bill and a longish tail. Females are smaller than males. The grasslands of the Assessment Area may provide foraging habitat for this species. There are ten reported CNDDB occurrences within five miles of the Assessment Area. The most recent observation was in 2016, 4.74 miles to the southwest, and the closest was in 2014, 0.692 miles to the south. In addition, ECORP found a tricolored blackbird foraging on the Amorusa site during its 2011 site survey. The company also noted that there is an established colony of nesting tricolored blackbirds located on the property directly two miles to the west of the Amorusa site and observed tricolored blackbirds nesting within the marsh located on the property three miles to the west in 2014. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022. Therefore, this species has a **low** potential for occurrence.

**State Candidate Species**

The following species has been proposed for state listing:

**1. Crotch's bumble bee** *(Bombus crotchii)* – is listed as a candidate species under the California Endangered Species Act and is a species of bumble bee native to California, characterized by its large size and black and yellow coloration with an orange-red tail on the abdomen. Queens and workers (females) have a black head and thorax, with yellow on the dorsal anterior thorax, and sometimes yellow on the scutellum. Queens and workers have a similar appearance, with the main difference being their body size. Queens are approximately one inch long and workers are 0.55-0.70 inches long. Crotch's bumblebee inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species, and can only tolerate a very narrow range of climatic conditions. Crotch's bumblebee nests underground, often in abandoned rodent dens. These bees typically forage on plants belonging to families such as *Fabaceae, Polynucleate, and Asteraceae*. Given the Crotch's bumblebee's wide variety of potential foraging species that it may use as habitat, there is a high likelihood the Assessment Area contains foraging habitat for this species. There have been no recorded CNDDB occurrences within 5 miles, nor was this species observed during the Barnett Environmental February 23 or July 21, 2022, site visit. Therefore, this species has a **moderate** potential to occur in the Assessment Area.

**California Species of Special Concern (CEQA)**

There are 15 (western spadefoot and western pond turtle are analyzed in the ***Federal Proposed Species*** section above) California species of special concern that have a potential to occur in the Assessment Area (Table 2).

**1. Western burrowing owl** (*Athene cunicularia*) – The western burrowing owl is a species of special concern in California. It is a small, long-legged owl, ranging from seven to ten inches in height. They have a round head, white eyebrows, yellow eyes, and long heads. Burrowing owls can be found in

grasslands, rangelands, agricultural areas, deserts, or any other open dry area with low vegetation. They nest and roost in burrows, such as those excavated by prairie dogs. While the Assessment Area may provide potential habitat for this species, there was no observation made of any burrows on the site. There are two reported CNDDB occurrences within five miles of the Assessment Area. The closest and most recent was in 2008, 3.16 miles to the south. ECORP Consulting observed a burrowing owl, presumably nesting, on its site during the company's 2011 survey. In addition, the company noted that a burrowing owl was observed within the property located three miles to the west in 2014. There was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit, and it was concluded that the species has a **low** potential for occurrence in the Assessment Area.

**2. Grasshopper sparrow** (*Ammodramus savannarum*) – This California species of special concern prefers to nest in mixed grassland habitats, hayfields, pastures, and grassy fallow fields. The grasslands and open habitats found throughout the Assessment Area may provide potentially suitable nesting and foraging habitat for this species. It is a small, flat-headed sparrow with a deep bill and has an unstreaked and buffy underside and rusty spotting or streaking on the back. It typically has a wingspan of approximately 8 inches and a length of between 4.3 and 4.5 inches. The Assessment Area could provide marginal foraging habitat for this species. There has been only one reported CNDDB occurrence within five miles of the Assessment Area, 3.42 miles to the north/northeast in 1998. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022. It is concluded that grasshopper sparrows have a **very low** potential for occurrence in the Assessment Area.

**3. Black tern** (*Chlidonias niger)* – A small and delicately built seabird with a thin, pointed bill; long, pointed wings; a shallowly forked tail; and short legs. Adults in breeding plumage are dark gray above with black heads and black underparts. The underwings and undertail coverts are pale. Nonbreeding adults are gray above and whitish below, with a dusky crown, ear patch, and mark at the side of the breast. Juveniles are similar to nonbreeding adults but with a brown-scaled pattern to the upper parts. This species nests in freshwater marshes and bogs, and winters in coastal lagoons, marshes, and open ocean waters. Migrants may stop over in almost any type of wetland. Black terns nest semi-colonially and forage for aerial insects and aquatic invertebrates in freshwater marshes in northeastern California and in rice fields in the Sacramento and upper San Joaquin Valleys. Pleasant Grove Creek and the adjacent rice fields could provide habitat for this species. There have been no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental site visit on February 23 or July 21, 2022. It was concluded that this species has a **very low** potential for occurrence in the Assessment Area.

**4. Western red bat** (*Lasirurs blossevillii)* – The posterior one-third of the interfemoral membrane is bare or only sparsely haired. The species has a body length of about 4 inches with an 11-13" wingspan. It has orange-brown to yellow-brown fur with a fully furred tail membrane, long pointed wings, and short rounded ears. Western red bats roost almost exclusively in trees, where their coloring helps them blend among the leaves and branches. This species prefers riparian habitats near water and roosts in sycamore, cottonwood, velvet ash, and elder trees and could find habitat along Pleasant Grove Creek. There have been no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental site visit

on February 23 or July 21, 2022. It was concluded that this species has a **very low** potential to occur in the Assessment Area.

**5. Pallid bat** (*Antrozous pallidus)* – A species of special concern, pallid bats are large and have a head and body length of approximately 2.75 inches (6.2-7.9 cm), forearm length of approximately 2.1 inches (4.5–6 cm), a tail of approximately 1.75 inches (3.9-4.9 cm), and a wingspan of 15-16 inches (38–40 cm). They weigh 14-25 grams. These bats have forward-pointing ears and a blunt piglike snout. Fur is pale at the roots, brown on their back, with a light underside. Pallid bats are typically found in arid or semi-arid habitats, often in mountainous or rocky areas near water. They are also found over open, sparsely vegetated grasslands. During the daytime, pallid bats typically roost in cracks and crevices, which may include tile roofs, exfoliating bark of trees, or rocky outcrops. There are no reported CNDDB occurrences within five miles of the Assessment Area, and there was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit. It has been concluded that this species has a **very low** potential to occur in the Assessment Area.

**6. American badger** (*Taxidea taxus)* – This California species of special concern has a flat body with short legs and a triangular face with a long, pointed, tipped-up nose. It has long brown or black fur with white stripes on its cheeks and one stripe running from its nose to the back of its head. It has small ears on the side of its head and long, sharp front claws. It weighs between 10 and 24 pounds and ranges between 20-32 inches in length. Badgers live in dry, open grasslands, fields, and pastures. The species prefers areas such as prairie regions with sandy loam soils where it can dig more easily for its prey. While the sandy loams in the Assessment Area could provide suitable foraging habitat for the American badger, there are no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit. It was concluded that the species has a **very low** potential for occurrence in the Assessment Area.

**7. Short-eared owl** (*Asio flammeus)* – This California species of special concern is a medium-sized owl with rounded heads. The "ears" mentioned in their name are difficult to see. The wings are broad, and the tips are smoothly rounded. Short-eared owls are medium brown spotted with buff and white on the upper parts. The face is pale with yellow eyes accentuated by black outlines. The breast is heavily streaked with brown; the chest and belly are pale or buffy, and the tail is short. Short-eared owls live in large, open areas with low vegetation, including prairie and coastal grasslands, heathlands, meadows, shrub steppe, savanna, tundra, marshes, dunes, and agricultural areas. Winter habitat is similar but is more likely to include large open areas within woodlots, stubble fields, fresh and saltwater marshes, weedy fields, dumps, gravel pits, rock quarries, and shrub thickets. The Assessment Area provides only marginal foraging habitat for this species. There have been no reported CNDDB occurrences within five miles of the Assessment Area. In addition, there was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit, and it was concluded that this species has a **very low** potential to occur in the Assessment Area.

**8. Loggerhead shrike** (*Lanius ludovicianus)* – This loggerhead shrike is listed as a species of special concern by the state of California. It inhabits open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries. Shrubs and trees near Pleasant Grove Creek represent suitable nesting habitat, and the

grasslands throughout the Assessment Area represent suitable foraging habitat. The Assessment Area provides marginal foraging habitat for this species. However, there have been no reported CNDDB occurrences within five miles of the Assessment Area. However, ECORP reported observing non-nesting loggerhead shrike within the property directly to the northeast (ECORP 2011b as cited in ECORP 2015). The consultants also observed loggerhead shrike at the mitigation property for Amorusa farms located three miles to the west during assessment level surveys in 2015 (ECORP 2015). However, there was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit, and therefore, it was determined that this species has a **very low** potential to occur in the Assessment Area.

**9. Yellow-headed blackbird** (*Xanthocephalus xanthocephalus)* – *With* a golden head, a white patch on black wings, and a call that sounds like a rusty farm gate opening, this special status species nests in reeds directly over the water in western and prairie wetlands. The Assessment Area provides only marginal foraging habitat for this species. There have been no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit, and therefore, it was concluded that this species has a **low** potential for occurrence in the Assessment Area.

**10. Coast horned lizard** (*Phrynosoma blainvillii)* – A species of special concern in California, the coastal horned lizard appears rough and spiky, with sharp spikes along its sides, back, and head. It is a large species and can grow up to four inches long, excluding the tail. Its color can be various shades of brown, with cream accents around the blotches and the outer fringes of its tail. This species occurs in valley-foothill hardwood, conifer, and riparian habitats, as well as pine-cypress, juniper, and annual grassland habitats. The Assessment Area is in the easternmost edge of this species range. However, the Assessment Area is regularly cultivated, and there is no preferred grassland or shrub habitat. There have been no reported CNDDB occurrences within a five-mile radius. No coast horned lizards were observed within the Assessment Area during any of Barnett Environmental's field surveys, and it was determined that this species has a **very low** potential to occur in the Assessment Area.

**11. Song sparrow** (*Melospiza melodia)* – A species of special concern in California, song sparrows range from southern Alaska across central and southern Canada, south through the United States into northern (locally to central) Mexico and Baja California. Sparrows occupy a large part of the northern range in summer only and much of the mid-central and southern portion in the winter only. Habitat varies over its wide range. In most areas, found in thickets, brushy fields, stream sides, shrubby marsh edges, woodland edges, hedgerows, roadsides, and well-vegetated gardens. Some coastal populations live in salt marshes, and in southwestern deserts, the species nests in dense streamside brush. There have been no reported CNDDB occurrences within a five-mile radius. No song sparrows were observed within the Assessment Area during any of Barnett Environmental's field surveys, and it was determined that this species has a **very low** potential to occur in the Assessment Area.

**12. Northern harrier** (*Circus hudsonius*) – A medium-sized raptor known for its distinctive low, gliding flight and white rump patch. The males are gray with black wingtips, while females and juveniles are brown with streaked underparts. This species is widely distributed across North America and is known for its unique hunting behavior, often flying low over fields and marshes in search of prey. This species occurs in open habitats such as marshes, grasslands, and agricultural

fields. Northern harriers are typically found in areas with dense, low vegetation that provides cover for their ground nests and hunting grounds rich in small mammals and birds. The agricultural areas in the Assessment Area may provide suitable foraging habitat for this species. There have been no nearby recorded CNDDB occurrences, and Barnett Environmental saw no sign of this species during the February 23 or July 21, 2022, site visit. Therefore, this species has a **very low** potential to occur in the Assessment Area.

**13. Purple martin** (*Progne subis*) – Purple martins are the largest swallows in North America, recognized by their iridescent, dark blue-purple feathers. Males are entirely dark, while females and juveniles have lighter underparts with some gray on the head and chest. These birds are known for their graceful flight and melodious songs. This species is typically found in open areas near water, such as lakes, ponds, and rivers, where there are abundant flying insects. Therefore, the open fields adjacent to Pleasant Grove Creek may provide marginally suitable foraging habitat for this species. There have been no nearby recorded CNDDB occurrences, and Barnett Environmental saw no sign of this species during the February 23 or July 21, 2022, site visit. Therefore, this species has a **very low** potential to occur in the Assessment Area.

**14. Sacramento splittail** (*Pogonichthys macrolepidotus*) – Sacramento splittail is a native fish characterized by a distinctive, deeply forked tail. The species can grow up to 40 cm in length and has a silvery body with a bluish back. The dorsal and anal fins are tinged with red or orange during the breeding season. This species is typically found in the slow-moving waters of rivers, sloughs, and floodplains in the Sacramento-San Joaquin Delta and Suisun Marsh. According to the UC Davis Calfish website, this species is either historically or presently current in the Pleasant Grove Creek watershed (HUC 180201610302), which is located within the Assessment Area. The project will be timed to occur during the summer while this species is known to rear in estuarine marshes, which are not located within the Assessment Area. There have been no nearby recorded CNDDB occurrences, and this species was not observed during the February 23 or July 21, 2022, site visit. Therefore, this species has a **low** potential to occur in the Assessment Area.

**15. Sacramento hitch** (*Lavinia exilicauda*) – Sacramento hitch is a native cyprinid fish characterized by an elongate body, silvery coloration, and a slightly forked tail. This species is typically associated with low-gradient rivers, sloughs, floodplain wetlands, and slow-moving freshwater habitats, where it utilizes areas with relatively warm water and low velocities. Sacramento hitch historically occurred throughout portions of the Sacramento–San Joaquin watershed and adjacent drainages. According to the UC Davis CalFish database, Sacramento hitch is either historically or presently current within the Pleasant Grove Creek watershed (HUC 180201610302), which encompasses the Assessment Area. However, the segment of Pleasant Grove Creek within the Assessment Area is highly modified, intermittently flowing, and characterized by warm, slow-moving, and sediment-laden conditions that lack the perennial aquatic habitat typically required to support resident or spawning populations of this species. While Sacramento hitch has been documented at a watershed scale and may occur regionally, there are no reported CNDDB occurrences within five miles of the Assessment Area, and this species was not observed during the February 23 or July 21, 2022, site visits. Based on the limited suitability of aquatic habitat within the Assessment Area and the absence of documented occurrences, Sacramento hitch has a **very low** potential to occur in the Assessment Area.

**California fully protected species**

There are two California fully protected species with the potential to occur in the Assessment Area.

**1. White-tailed kite** (*Elanus leucurus)* – This raptor is a fully protected species in California. A small to medium-sized raptor with narrow, pointed wings and a long tail. When perched, it looks rather big-headed with a long and skinny body. This species is easily identified by its entirely white tail, red eyes, and black shoulder patches. It occurs in open grasslands, fields, and meadows. Isolated trees near foraging habitat are used for perching and nesting. The site provides foraging habitat for this species, and the trees along Pleasant Grove Creek could provide potential nesting habitat. There has been only one reported CNDDB occurrence within five miles of the Assessment Area, 2.32 miles to the south/southwest in 1998, and there was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit. However, the white-tailed kite was observed within the Amoruso Ranch Property but was not nesting during surveys (ECORP 2011b as referenced in ECORP 2015). It has been determined that this species has a **low** potential for occurrence in the Assessment Area.

**2. Ringtail** (*Bassariscus astutus*) – A member of the raccoon family, the ringtail has a bushy tail flattened and nearly as long as the head and body, with alternating black and white rings. These animals are almost wholly nocturnal and spend the majority of the day sleeping in their dens. Ringtails live in many different habitats, but they prefer rocky areas such as rock piles, stone fences, canyon walls, and talus slopes. Ringtails are expert climbers capable of climbing vertical walls to find the most protected crevices, crannies, and hollows in which to build their dens. In woodland areas, where they are less common, they den in hollow trees and logs. There have been no reported CNDDB occurrences within five miles of the Assessment Area. There was no sign of this species during the Barnett Environmental February 23 or July 21, 2022, site visit, and therefore, this species has a **very low** potential for occurrence in the Assessment Area.

# 6.0 Effects of Proposed Action

## 6.1 Effects of Proposed Action on Wetlands, "Other Waters of the U.S." or "Waters of the State"

Any work completed within Pleasant Grove Creek, associated bypass, or the vernal pools located in the PUE would require resource permitting of these features should they be modified during project development. We would recommend communicating with the Sacramento Regional Water Quality Control Board (RWQCB) to determine whether CA Dredge & Fill Procedures (aka Waste Discharge Requirement; WDR) permitting would be required and with the California Department of Fish & Wildlife to inquire about a possible 1602 Lake & Streambed Alteration Agreement. In addition, the Army Corps of Engineers Sacramento division should be contacted to determine which permit would be appropriate for the proposed work. Last, impacts to the wetland features found in the PUE were previously permitted under Army Permit #200200666 and coordination with this agency, as well as the USFWS, Water Board, and CDFW is required to determine whether the utility work is consistent with the approved project description and conditions of approval.

Any resource permitting with these agencies could also require mitigation of any wetland habitat loss through the purchase of equivalent wetland credits at an approved mitigation bank within the project's service area.

### 6.2 Effects of Proposed Action on Rare Plants and Habitat

The following discussion of biological resources impacts, and mitigation measures is based on implementation of the proposed project in comparison to existing conditions.

**Rare plants**

It is recommended that a focused survey for special-status plant species be conducted within and surrounding the project areas (within the areas of potential impact) to document any listed species that may be occurring within the proximity of the project site(s) during the blooming period.

A focused survey is an on-site survey that is limited in scope, content, length, and designed to gather information on a specific issue(s). Because of the CNDDB generated list of focal special-status species targeted for this survey, the habitats of potential likelihood of occurrence have been pre-scoped and have been predetermined for their potential presence based on habitat features. Therefore, the list of potentially occurring species has already been generated, and a focused rare plant survey is recommended.

During the surveys, a botanist(s) is to conduct a systematic search of the project area for target plant species. They may use a variety of techniques, including visual surveys, transect surveys, and quadrat sampling, to detect and document the presence of plant species. In addition to documenting target species, the botanist(s) should also document the overall plant community within the project area, including vegetation cover, plant density, and plant diversity.

If rare or sensitive plant species are identified during the survey, appropriate mitigation measures will be developed and implemented to avoid or minimize impacts to those species. These measures may include adjusting the project design to avoid impacts to sensitive plant populations or implementing measures to protect the plants during construction activities.

Due to the size and topography of the Assessment Area, it is recommended that a meandering or wandering transect approach occurs to ensure that the survey covers all habitats that could potentially harbor the listed species currently in bloom. Since the focused survey targets special-status species, not all species encountered need to be documented.

### 6.3 Effects of Proposed Action on Wildlife and Habitat

#### 6.3.1 Effects of the Proposed Action on Federally-Listed Wildlife and their Habitat

**Steelhead – Central Valley DPS**

In-water construction activities will be restricted to occur between July 1 and August 31. Operation of equipment and placement of materials within the channel shall be conducted slowly and deliberately to alert and allow adult and juvenile fish to move away from the work area. When first entering or crossing a channel each day, a construction monitor shall walk ahead of the equipment working to alert any fish and allow them to move from the work area. If water is drafted from Pleasant Grove Creek for construction purposes, water pump intakes shall be screened in compliance with California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service salmonid-screening specifications.

**Giant Garter Snake**

For the giant garter snake, construction shall be restricted to occur between May 1 and October 1 to ensure that any snakes in the vicinity are restricted to the immediate environs of the adjacent perennial waterway or, if construction occurs between October 2 and April 30, construction activities shall not take place within 200 feet of the perennial waterway.

Construction shall not occur within 10 to 15 feet of the nearby watercourse from May 1 to October 1, unless a qualified biologist surveys the area and stakes or otherwise marks restriction limits of the "no disturbance" zone prior to construction. Vegetation clearing shall be confined to the minimal area necessary to facilitate construction activities. Exclusion fencing shall be placed to prevent giant garter snakes from straying into the construction area from suitable aquatic habitat north of the project site. The fence will be maintained for the duration of construction activities within 200 feet of aquatic habitat. Plastic monofilament netting (erosion control matting) will not be allowed because snakes can become caught in this type of erosion control material.

Environmental awareness training shall be conducted to inform on-site construction personnel regarding the potential presence of giant garter snakes and the importance of avoiding impacts to this species and their habitat.

24-hours prior to construction activities, the project area should be surveyed for giant garter snakes. Survey of the project area should be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. Any sightings or incidental take shall be reported to the Service immediately by telephone at (916) 414-6600.

Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat. After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions. Restoration work may include such activities as replanting species removed from banks or replanting emergent vegetation in the active channel.

A speed limit of 15 miles per hour will be enforced when construction vehicles are driving within 15 feet of Pleasant Grove Creek or the bypass Channel.

**Vernal Pool and Tadpole Fairy Shrimp**

Prior to construction, U.S. Fish & Wildlife Service protocol-level (dry- and wet-season) vernal pool crustacean surveys would need to be conducted by a qualified biologist to definitively determine presence or absence of these listed large branchiopods onsite in the PUE. If no listed large branchiopods are found on-site, and this conclusion confirmed by the USFWS, no further mitigation is required. If, however, listed large branchiopods are found, assumed to be (without surveys), or determined by the USFWS to be onsite, the applicant will need to mitigate the loss of potential habitat in coordination with the USFWS as part of a Clean Water Act, Section 404 permitting process,

or modify the existing permit, to provide for preservation of off-site lands that provide habitat for listed large branchiopods.

***Candidate Species***

**Western Pond Turtle**

This species typically nests from late May to July, and since work will occur from July 1-August 31 within water, a visual encounter survey shall be completed by a qualified biologist within 3 days prior to the commencement of work. This survey will look for active pond turtles and nests within the creek and a 200-foot surrounding buffer. Additionally, a biologist shall monitor the dewatering process and the removal of any riparian vegetation. If an individual is found, the biologist will halt/delay any work until the species has vacated the work area on its own accord. If a nest is found, the USFWS service will be consulted on recommended procedures for avoidance. Otherwise, a 200-foot avoidance buffer shall be placed around the nest to ensure this species is not affected.

**Western Spadefoot**

The in-water construction period of July 1-August 31 is outside the breeding and migration season of the western spadefoot, which typically takes place from late winter to March. A visual encounter survey will be conducted by a qualified biologist within three days prior to construction activities to identify and document the presence of Western spadefoot within the Action Area. This survey will look for the western spadefoot within the creek and a 200-foot surrounding buffer. Additionally, a biologist shall monitor the dewatering process and the removal of any riparian vegetation. If an individual is found, the biologist shall halt/delay any work until the species has vacated the work area on its own accord.

### 6.3.2 Effects of the Proposed Action on State-Listed Wildlife and their Habitat

**Sacramento Splittail**

This species is known to be found within Pleasant Grove Creek. There are no reported CNDDB occurrences within five miles of the Assessment Area, nor was any sign of this species seen during the Barnett Environmental site visits on February 23 or July 21, 2022.

Construction will be limited to occur during July1-August 31 which is when this species is known to rear in estuarine marshes, which are not located within the Assessment Area, and therefore the project will not affect the migration period of this species.

**Sacramento Hitch**

Sacramento hitch is known to occur within the Pleasant Grove Creek watershed (HUC 180201610302); however, the reach of Pleasant Grove Creek within the Assessment Area is highly modified, intermittently flowing, and characterized by warm, slow-moving, sediment-laden conditions that do not provide suitable perennial habitat for resident or spawning populations. There are no reported California Natural Diversity Database (CNDDB) occurrences within five miles of the Assessment Area, and the species was not observed during site visits conducted on February 23 or July 21, 2022.

To ensure avoidance and/or minimization, a qualified biologist shall conduct a pre-construction survey for Sacramento hitch within suitable aquatic habitat no more than 14 days prior to the initiation of in-water or near-water work. All in-water work shall occur during the approved dry work window (generally June 15 through October 15), unless otherwise authorized in writing by CDFW. If Sacramento hitch are observed during the pre-construction survey, CDFW shall be notified immediately and fish protection and relocation measures shall be implemented, as dewatering would be required for the proposed project. Construction activities shall not commence until CDFW-approved measures are in place.

**Swainson's Hawk**

No Swainson's hawks were observed during the June 2022 field survey; however, a preconstruction raptor survey during the breeding period to determine the presence or absence of this, or any other raptor species that may be present either in or within a 500-foot buffer of the Assessment Area. Therefore, prior to the issuance of a grading permit for development:

1. A pre-construction nesting bird survey shall be conducted on-site within 14 days prior to construction if construction associated with the project would commence between March 1st and September 1st (i.e., the formally recognized start/end of the nesting season). If disturbance associated with the project would occur outside of the nesting season, no surveys shall be required.
2. If Swainson's hawks are identified as nesting within the Assessment Area, a sufficient buffer (to be determined in consultation with CDFW) shall be established. The buffer shall be delineated with orange construction fencing. Disturbance within the buffer shall be postponed until an approved biologist has determined that the young have either fledged the nest or that the nesting cycle has otherwise been completed or aborted.

**Burrowing Owl**

A preconstruction survey shall be conducted by a qualified biologist or ornithologist during both the wintering and nesting season unless the species is detected on the first survey. If possible, the winter survey shall be conducted between December 1 and January 31 (when wintering owls are most likely to be present), and the nesting season survey should be conducted between April 15 and July 15 (the peak of breeding season). Surveys conducted from two hours before sunset to one hour after or from one hour before to two hours after sunrise are preferable. The survey techniques shall be consistent with the Staff Report survey protocol and include a 260-foot-wide buffer zone surrounding the Assessment Area. Repeat surveys should also be conducted not more than 30 days prior to the initial ground disturbance to inspect for re-occupation and the need for additional protection measures. The survey(s) shall be paid by the applicant and approved by the City. No further mitigation is required if no burrowing owls are detected during preconstruction surveys.

If active burrowing owl burrows are identified, project activities shall not disturb the burrow during the nesting season (February 1–August 31) or until a qualified biologist has determined that the young have fledged or the burrow has been abandoned. A no-disturbance buffer zone of 160 feet is required to be established around each burrow with an active nest until the young have fledged the burrow as determined by a qualified biologist.

If destruction of the occupied burrow is unavoidable during the non-breeding season, September 1–January 31, passive relocation of the burrowing owls shall be conducted. Passive relocation

involves installing a one-way door at the burrow entrance, encouraging owls to move from the occupied burrow. No permit is required to conduct passive relocation; however, this process shall be conducted by a qualified biologist and in accordance with CDFG guidelines. In addition, to offset the loss of foraging and burrow habitat on the project site, a minimum of 6.5 acres of foraging habitat (calculated on a 300-ft foraging radius around the burrow) per pair or unpaired resident bird, shall be acquired and permanently protected at a location acceptable to the CDFG.

If burrowing owls are identified on the project site, Placer County must receive copies of the Mitigation Agreement by and between the applicant and CDFG, prior to the issuance of grading permits for the proposed project.

**Special-Status Bird Species Mitigation Measure**

A qualified biologist would conduct nesting bird surveys within 14 days of initiation of ground disturbance activities within the proposed construction footprint (plus predetermined buffer) suitable habitat (and within the appropriate nesting season) throughout the project site to avoid impacts to nesting birds associated with construction. Surveys shall be conducted prior to ground-disturbing activities. If an active nest is located, all clearing and construction within 300 feet of the nest (500 feet for raptor nests) or as designated appropriate by a biological monitor, shall be postponed until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting, as determined by a qualified biologist. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described. Additional surveys should then be conducted if ground-disturbing activities are delayed due to active bird nesting until the qualified biologist determines that the young associated with an active nest have fledged.

**Coast Horned Lizard**

A pre-construction survey shall be conducted by a biologist within three days prior to construction activities to identify and document the presence of coast horned lizards within the Assessment Area. The survey results shall be submitted to the CDFW prior to construction. Prior to beginning construction work each day, a biologist will inspect the immediate Assessment Area to avoid any impacts on coast horned lizards.

If surveys result in the identification of coast horned lizards within the Assessment Area, observed individuals and/or eggs shall be removed from project impact areas (with the prior approval of the CDFW) and relocated to pre-determined suitable habitat in an appropriate area that will not be impacted.

**Crotch's Bumblebee**

For the Crotch's Bumble Bee, construction shall be restricted to occur between May 1 and October 1 to avoid any queen bee's hibernation period that may take place during the winter. Construction during this period will avoid disturbing Crotch's bumblebee queens overwintering in loose soil and abandoned rodent holes underground.

Preconstruction surveys shall be conducted on-site within 14 days prior to construction between May 1 to August 31 during the colonies' active period.

A biological monitor shall be present on-site during the initial period of construction which will consist of the removal of the top layer of soil to ensure that no Crotch's bumblebee nests are disturbed.

If Crotch's bumblebee nests are found on-site during pre-construction surveys or during construction, an appropriate buffer determined by the biologist should be established around the nest to reduce the risk of disturbance or accidental take.

## 7.0 Conclusions

The Assessment Area contains approximately 6.255 acres of mapped wetlands and other waters. Any activity causing direct adverse impacts to these features within the Assessment Area could require resource permits from the Regional Water Quality Control Board (401; WDR), California Department of Fish & Wildlife (1602), and the United States Army Corps of Engineers (404).

Barnett Environmental's and Cox Planning Solutions biological assessment of the Assessment Area concluded that there are three special status plant (Sanford's arrowhead, Dwarf Downingia, Woolly rose-mallow, Boggs Lake hedge-hyssop), five federal species (giant garter snake, steelhead – Central Valley DPS, yellow-billed cuckoo, Vernal Pool and Tadpole Fairy Shrimp), two state-listed species (Swainson's hawk, tricolored blackbird), one state candidate species (Crotch's bumble bee)**,** 16 special status species (western pond turtle, grasshopper sparrow, burrowing owl, black tern, western red bat, western spadefoot, northern harrier, short-eared owl, American badger, loggerhead shrike, yellow-headed blackbird, coast horned lizard, song sparrow, pallid bat, purple martin, and Sacramento splittail), two of which are proposed for federal listing (western pond turtle, western spadefoot) and one fully protected species (white tailed kite) that have the potential to occur.

## 8.0 References


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# APPENDIX A – NATURAL RESOURCE CONSERVATION SERVICE (NRCS) SOILS REPORT

United States Department of Agriculture

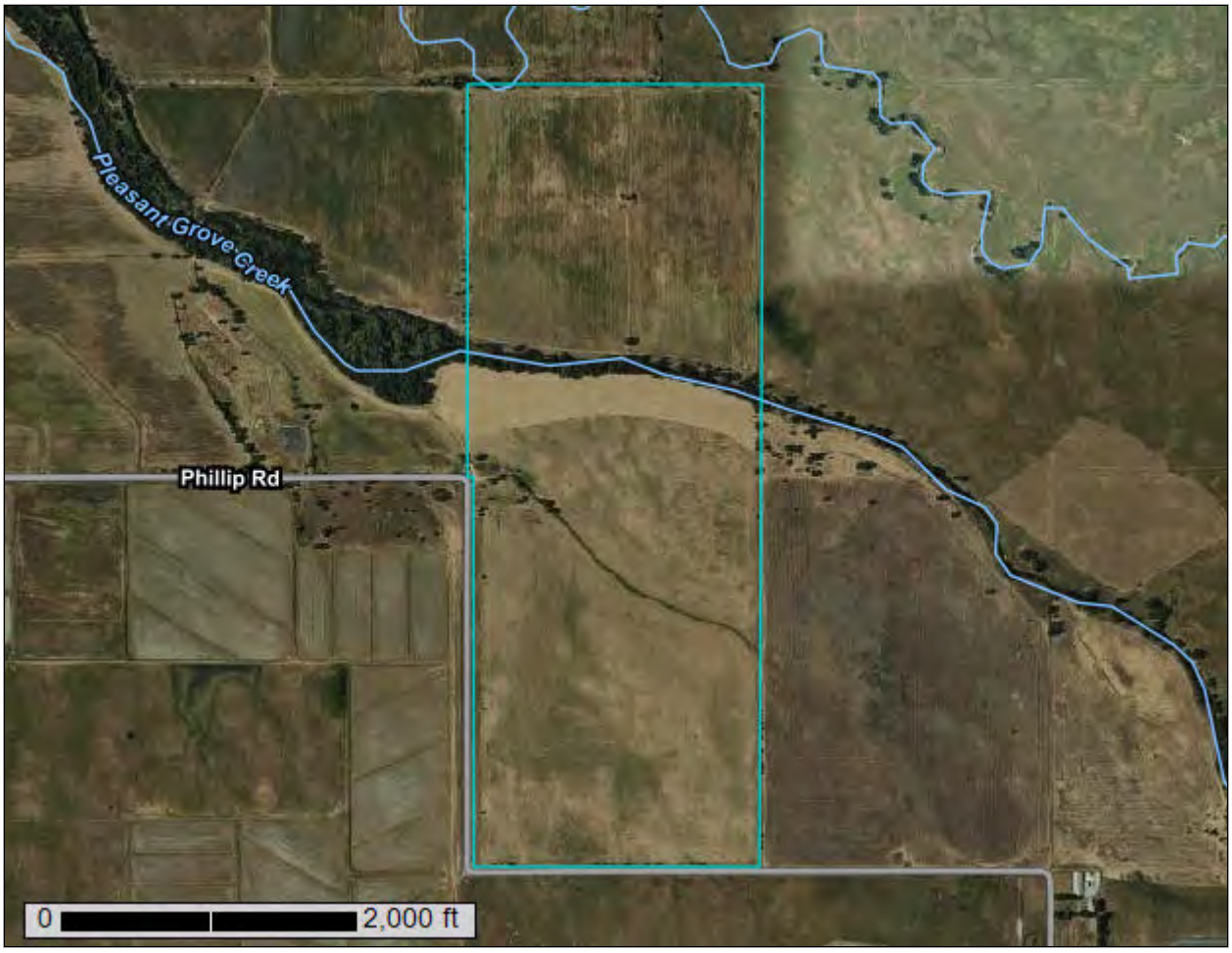
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Placer County, California, Western Part

## 6282 Phillip Rd




May 13, 2022

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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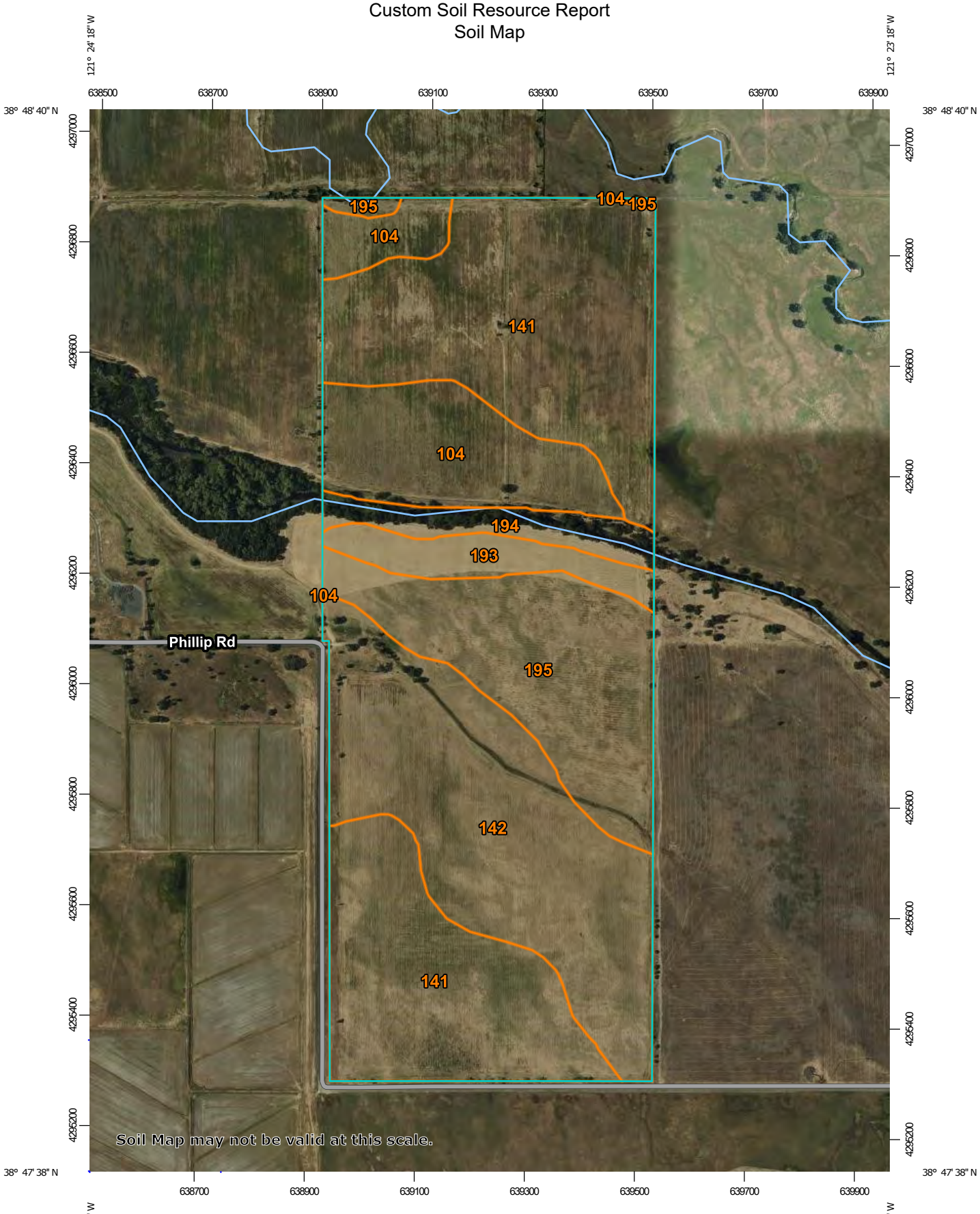
# Contents

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map




Map Scale: 1:9,370 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Placer County, California, Western Part
Survey Area Data: Version 13, Sep 3, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 5, 2019—May 12, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 104 | Alamo-Fiddyment complex, 0 to 5 percent slopes | 29.3 | 12.4% |
| 141 | Cometa-Fiddyment complex, 1 to 5 percent slopes | 91.9 | 38.9% |
| 142 | Cometa-Ramona sandy loams, 1 to 5 percent slopes | 58.4 | 24.7% |
| 193 | Xerofluvents, occasionally flooded | 9.5 | 4.0% |
| 194 | Xerofluvents, frequently flooded | 8.8 | 3.7% |
| 195 | Xerofluvents, hardpan substratum | 38.4 | 16.3% |
| **Totals for Area of Interest** | | **236.3** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Placer County, California, Western Part

## 104—Alamo-Fiddyment complex, 0 to 5 percent slopes

### Map Unit Setting

*National map unit symbol:* hfyc
*Elevation:* 50 to 500 feet
*Mean annual precipitation:* 10 to 22 inches
*Mean annual air temperature:* 61 degrees F
*Frost-free period:* 230 to 300 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Alamo and similar soils:* 50 percent
*Fiddyment and similar soils:* 30 percent
*Minor components:* 20 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Alamo

#### Setting

*Landform:* Depressions
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium

#### Typical profile

*H1 - 0 to 9 inches:* clay
*H2 - 9 to 37 inches:* clay
*H3 - 37 to 41 inches:* indurated

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* 37 to 41 inches to duripan
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* OccasionalNone
*Frequency of ponding:* None
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Available water supply, 0 to 60 inches:* Low (about 5.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* D
*Ecological site:* R017XY902CA - Duripan Vernal Pools
*Hydric soil rating:* Yes

### Description of Fiddyment

#### Setting

*Landform:* Ridges
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from sedimentary rock

#### Typical profile

*H1 - 0 to 12 inches:* loam
*H2 - 12 to 28 inches:* clay loam
*H3 - 28 to 35 inches:* indurated
*H4 - 35 to 39 inches:* weathered bedrock

#### Properties and qualities

*Slope:* 1 to 5 percent
*Depth to restrictive feature:* 20 to 35 inches to duripan; 35 to 39 inches to lithic bedrock
*Drainage class:* Well drained
*Runoff class:* High
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Low (about 4.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* C
*Ecological site:* R017XY902CA - Duripan Vernal Pools
*Hydric soil rating:* No

### Minor Components

#### San joaquin, sandy loam

*Percent of map unit:* 10 percent
*Ecological site:* R017XY903CA - Stream Channels and Floodplains
*Hydric soil rating:* No

#### Cometa, sandy loam

*Percent of map unit:* 5 percent
*Ecological site:* R017XY903CA - Stream Channels and Floodplains
*Hydric soil rating:* No

#### Kaselburg, loam

*Percent of map unit:* 5 percent
*Ecological site:* R017XY903CA - Stream Channels and Floodplains
*Hydric soil rating:* No

## 141—Cometa-Fiddyment complex, 1 to 5 percent slopes

### Map Unit Setting

*National map unit symbol:* hfzk
*Elevation:* 20 to 400 feet
*Mean annual precipitation:* 10 to 23 inches
*Mean annual air temperature:* 61 to 63 degrees F
*Frost-free period:* 230 to 300 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Cometa and similar soils:* 40 percent
*Fiddyment and similar soils:* 30 percent
*Minor components:* 30 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Cometa

#### Setting

*Landform:* Terraces
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 18 inches:* sandy loam
*H2 - 18 to 29 inches:* clay
*H3 - 29 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 1 to 5 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Very low (about 2.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* D
*Ecological site:* R017XD093CA - CLAYPAN
*Hydric soil rating:* No

### Description of Fiddyment

#### Setting

*Landform:* Ridges
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from siltstone

#### Typical profile

*H1 - 0 to 12 inches:* loam
*H2 - 12 to 28 inches:* clay loam
*H3 - 28 to 35 inches:* indurated
*H4 - 35 to 39 inches:* weathered bedrock

#### Properties and qualities

*Slope:* 1 to 5 percent
*Depth to restrictive feature:* 20 to 35 inches to duripan; 35 to 39 inches to lithic bedrock
*Drainage class:* Well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Very low (about 2.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 4e
*Land capability classification (nonirrigated):* 4e
*Hydrologic Soil Group:* D
*Ecological site:* R017XD093CA - CLAYPAN
*Hydric soil rating:* No

### Minor Components

#### Kaseberg, loam

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

#### San joaquin, sandy loam

*Percent of map unit:* 10 percent
*Hydric soil rating:* No

#### Ramona, sandy loam

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

#### Alamo, clay

*Percent of map unit:* 5 percent
*Landform:* Depressions
*Hydric soil rating:* Yes

## 142—Cometa-Ramona sandy loams, 1 to 5 percent slopes

### Map Unit Setting

*National map unit symbol:* hfzl
*Elevation:* 20 to 3,500 feet
*Mean annual precipitation:* 10 to 23 inches
*Mean annual air temperature:* 63 degrees F
*Frost-free period:* 230 to 320 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Cometa and similar soils:* 50 percent
*Ramona and similar soils:* 30 percent
*Minor components:* 20 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Cometa

#### Setting

*Landform:* Terraces
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 18 inches:* sandy loam
*H2 - 18 to 29 inches:* clay
*H3 - 29 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 1 to 5 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Very low (about 2.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

### Description of Ramona

#### Setting

*Landform:* Terraces
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from granite

#### Typical profile

*H1 - 0 to 6 inches:* sandy loam
*H2 - 6 to 14 inches:* loam
*H3 - 14 to 55 inches:* sandy clay loam
*H4 - 55 to 73 inches:* gravelly sandy loam

#### Properties and qualities

*Slope:* 1 to 5 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*Runoff class:* Medium
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 8.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 3e
*Land capability classification (nonirrigated):* 3e
*Hydrologic Soil Group:* C
*Hydric soil rating:* No

### Minor Components

#### San joaquin

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

#### Fiddyment

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

#### Xerofluvent

*Percent of map unit:* 5 percent
*Landform:* Drainageways
*Hydric soil rating:* Yes

#### Alamo

*Percent of map unit:* 5 percent
*Landform:* Depressions
*Hydric soil rating:* Yes

## 193—Xerofluvents, occasionally flooded

### Map Unit Setting

*National map unit symbol:* hg17
*Elevation:* 20 to 500 feet
*Mean annual precipitation:* 14 to 20 inches
*Mean annual air temperature:* 59 to 64 degrees F
*Frost-free period:* 250 to 270 days
*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Xerofluvents, occasionally flooded, and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Xerofluvents, Occasionally Flooded

#### Setting

*Landform:* Flood plains
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium derived from mixed rocks

#### Typical profile

*H1 - 0 to 30 inches:* stratified loamy sand to fine sandy loam
*H2 - 30 to 48 inches:* stratified loamy sand to fine sandy loam to silt loam
*H3 - 48 to 55 inches:* stratified loam to silty clay loam to clay

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Moderately well drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 30 to 60 inches
*Frequency of flooding:* NoneOccasional
*Frequency of ponding:* Occasional
*Calcium carbonate, maximum content:* 5 percent
*Available water supply, 0 to 60 inches:* Moderate (about 7.9 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 2w
*Land capability classification (nonirrigated):* 2w
*Hydrologic Soil Group:* A
*Hydric soil rating:* No

**Minor Components**

**Unnamed**

*Percent of map unit:* 10 percent
*Landform:* Drainageways
*Hydric soil rating:* Yes

## 194—Xerofluvents, frequently flooded

**Map Unit Setting**

*National map unit symbol:* hg18
*Elevation:* 0 to 1,500 feet
*Mean annual precipitation:* 14 to 20 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 250 to 270 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Xerofluvents, frequently flooded, and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Xerofluvents, Frequently Flooded**

**Setting**

*Landform:* Drainageways
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium

**Typical profile**

*H1 - 0 to 15 inches:* stratified loamy sand to fine sandy loam
*H2 - 15 to 37 inches:* stratified loamy sand to fine sandy loam to silt loam
*H3 - 37 to 55 inches:* stratified loam to silty clay loam to clay

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Very low
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
*Depth to water table:* About 30 to 57 inches
*Frequency of flooding:* FrequentNone
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Available water supply, 0 to 60 inches:* Moderate (about 8.1 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 4w
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* B
*Hydric soil rating:* Yes

**Minor Components**

**Unnamed**

*Percent of map unit:* 10 percent
*Landform:* Drainageways
*Hydric soil rating:* Yes

## 195—Xerofluvents, hardpan substratum

**Map Unit Setting**

*National map unit symbol:* hg19
*Elevation:* 300 to 3,500 feet
*Mean annual precipitation:* 30 to 40 inches
*Mean annual air temperature:* 61 to 64 degrees F
*Frost-free period:* 200 to 300 days
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Xerofluvents and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Xerofluvents**

**Setting**

*Landform:* Flood plains
*Landform position (two-dimensional):* Toeslope
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Alluvium

**Typical profile**

*H1 - 0 to 40 inches:* stratified loam to clay loam
*H2 - 40 to 44 inches:* indurated

**Properties and qualities**

*Slope:* 0 to 5 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Runoff class:* Low
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* About 0 inches

*Frequency of flooding:* OccasionalNone
*Frequency of ponding:* None
*Available water supply, 0 to 60 inches:* Moderate (about 6.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w
*Land capability classification (nonirrigated):* 3w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* No

**Minor Components**

**Alamo**

*Percent of map unit:* 10 percent
*Landform:* Depressions
*Ecological site:* R017XY903CA - Stream Channels and Floodplains
*Hydric soil rating:* Yes

**Unnamed**

*Percent of map unit:* 3 percent
*Landform:* Drainageways
*Hydric soil rating:* Yes

**Unnamed**

*Percent of map unit:* 2 percent
*Landform:* Drainageways
*Hydric soil rating:* Yes

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# APPENDIX B – CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB)

# Multiple Occurrences per Page

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Pleasant Grove (3812174))<br /> AND (Federal Listing Status IS (Endangered OR Threatened) OR State Listing Status IS (Endangered OR Threatened))

***Buteo swainsoni*** **Element Code:** ABNKC19070

Swainson's hawk

| | | | | | |
|---|---|---|---|---|---|
| **Listing Status:** | **Federal:** | None | **CNDDB Element Ranks:** | **Global:** | G5 |
| | **State:** | Threatened | | **State:** | S4 |
| | **Other:** | BLM_S-Sensitive, IUCN_LC-Least Concern | | | |
| **Habitat:** | **General:** | BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES. | | | |
| | **Micro:** | REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS. | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Occurrence No.** | 1482 | **Map Index:** 62610 | **EO Index:** 62647 | **Element Last Seen:** | 2001-07-09 |
| **Occ. Rank:** | Unknown | | **Presence:** Presumed Extant | **Site Last Seen:** | 2001-07-23 |
| **Occ. Type:** | Natural/Native occurrence | | **Trend:** Unknown | **Record Last Updated:** | 2013-02-27 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.75717 / -121.43283 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4290996 E636169 | **Elevation (ft):** | 70 |
| **PLSS:** | T11N, R05E, Sec. 32, SE (M) | **Acres:** | 0.0 |

**Location:** WEST SIDE OF COUNTRY ACRES LANE, 0.4 MILE NORTH OF BASELINE (RIEGO) ROAD, 5 MILES WEST OF ROSEVILLE.

**Detailed Location:** MAPPED TO COORDINATES FROM CDFW NEST RECORDS, 2000-2004.

**Ecological:** NEST TREE WAS A 40' EUCALYPTUS; SURROUNDED BY GRASSLAND (DRYLAND PASTURE) IN ALL DIRECTIONS.

**General:** NEST DISCOVERED ON 8 JUN 2001. PARTIALLY-FEATHERED YOUNG IN NEST ON 9 JUL 2001; FLEDGED BY 23 JUL 2001.

**Owner/Manager:** UNKNOWN

| | | | | | |
|---|---|---|---|---|---|
| **Occurrence No.** | 1483 | **Map Index:** 62612 | **EO Index:** 62649 | **Element Last Seen:** | 2001-07-23 |
| **Occ. Rank:** | Unknown | | **Presence:** Presumed Extant | **Site Last Seen:** | 2001-07-23 |
| **Occ. Type:** | Natural/Native occurrence | | **Trend:** Unknown | **Record Last Updated:** | 2013-02-27 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.78156 / -121.44386 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4293687 E635165 | **Elevation (ft):** | 60 |
| **PLSS:** | T11N, R05E, Sec. 20, SW (M) | **Acres:** | 0.0 |

**Location:** N SIDE OF CURRY CREEK, ABOUT 0.4 MI E OF S BREWER RD CROSSING & 2.1 MI NNE OF BASELINE RD AT BREWER RD, W OF ROSEVILLE.

**Detailed Location:** MAPPED TO COORDINATES FROM CDFW NEST RECORDS, 2000-2004.

**Ecological:** 2001 NEST IN 25' WILLOW SURROUNDED BY FALLOW/RUDERAL LAND; VERNAL POOLS SUSPECTED NEARBY. ANOTHER NEST SITE ACTIVE EARLY IN THE SEASON WAS OBSERVED ABOUT 524 M TO THE SE; THIS WAS PROBABLY A FAILED NEST ATTEMPT BY THE SAME PAIR.

**General:** NESTING PAIR OBSERVED ON MULTIPLE VISITS MAY-JUL 2001; ADULT OBS FEEDING 1 DOWNY YOUNG ON 23 JUL, FLEDGING SUCCESS UNKNOWN.

**Owner/Manager:** UNKNOWN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 2116 | **Map Index:** | 88293 | **EO Index:** | 89304 | **Element Last Seen:** | 2012-07-16 |
| **Occ. Rank:** | Excellent | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2012-07-16 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2013-03-15 |

| | |
|---|---|
| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Placer |

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.83862 / -121.44963 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4300010 E634556 | **Elevation (ft):** | 55 |
| **PLSS:** | T11N, R05E, Sec. 05, NW (M) | **Acres:** | 0.0 |

| | |
|---|---|
| **Location:** | ALONG KING SLOUGH ABOUT 0.5 MILE SSE OF S BREWER RD AT E CATLETT RD AND 2 MILES NE OF PLEASANT GROVE. |
| **Detailed Location:** | MAPPED TO COORDINATES GIVEN ON FIELD SURVEY FORM. |
| **Ecological:** | NEST IN LARGE WILLOW TREE ALONG SLOUGH, LARGEST IN VICINITY. WITHIN RIPARIAN HABITAT DOMINATED BY TYPHA, WITH RICE FIELDS TO THE NORTH AND FALLOW LAND TO THE SOUTH. |
| **General:** | NEST MONITORED BEFORE AND DURING BREWER RD BRIDGE CONSTRUCTION IN 2012; NESTING PAIR OBSERVED, 2 YOUNG WERE FLEDGED. |
| **Owner/Manager:** | PVT |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 2117 | **Map Index:** | 88294 | **EO Index:** | 89305 | **Element Last Seen:** | 2009-08-19 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2009-08-19 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2013-02-27 |

| | |
|---|---|
| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Sutter |

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.82377 / -121.47875 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4298320 E632057 | **Elevation (ft):** | 45 |
| **PLSS:** | T11N, R04E, Sec. 12, N (M) | **Acres:** | 0.0 |

| | |
|---|---|
| **Location:** | S SIDE OF HOWSLEY RD, IN PLEASANT GROVE; ABOUT 2.1 MI SW OF E CATLETT RD AT S BREWER RD. |
| **Detailed Location:** | MAPPED TO POINT FROM CDFW SHAPEFILE OF 2009 NEST RECORDS. |
| **Ecological:** | NEST IN 20' WILLOW WITH CROPLAND TO THE NORTH AND PASTURE AND FALLOW LAND TO THE SOUTH. |
| **General:** | NEST WITH YOUNG OBSERVED ON 19 AUG 2009; FLEDGING SUCCESS UNKNOWN. |
| **Owner/Manager:** | UNKNOWN |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 2118 | **Map Index:** | 88296 | **EO Index:** | 89307 | **Element Last Seen:** | 2001-05-03 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2001-05-03 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2013-02-27 |

| | |
|---|---|
| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Sutter |

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.80797 / -121.49155 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4296548 E630974 | **Elevation (ft):** | 40 |
| **PLSS:** | T11N, R04E, Sec. 14, NE (M) | **Acres:** | 0.0 |

| | |
|---|---|
| **Location:** | S SIDE OF FIFIELD RD AND PLEASANT GROVE CREEK, ABOUT 0.4 MI W OF PLEASANT GROVE RD JUNCTION & 1.5 MI E OF NATOMAS RD. |
| **Detailed Location:** | MAPPED TO POINT FROM CDFW 2000-2004 NEST RECORDS. |
| **Ecological:** | NEST IN 80' EUCALYPTUS SURROUNDED WITH CROPLAND AND SOME PASTURE TO THE SOUTHWEST. |
| **General:** | ACTIVE NEST, INCUBATION OBSERVED ON 3 MAY 2001; NEST SUCCESS UNKNOWN. |
| **Owner/Manager:** | UNKNOWN |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 2119 | **Map Index:** | 88299 | **EO Index:** | 89309 | **Element Last Seen:** | 2010-04-19 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2010-04-19 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2013-02-27 |

| | |
|---|---|
| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Sutter |

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.78107 / -121.49934 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4293552 E630347 | **Elevation (ft):** | 35 |
| **PLSS:** | T11N, R04E, Sec. 23, SW (M) | **Acres:** | 0.0 |

| | |
|---|---|
| **Location:** | NORTH SIDE OF SANKEY RD, ABOUT 0.1 MI NE OF NATOMAS RD INTERSECTION AND 0.6 MI WNW OF PLEASANT GROVE RD INTERSECTION. |
| **Detailed Location:** | MAPPED TO PROVIDED COORDINATES. |
| **Ecological:** | NEST TREE IN SPARSELY-TREED YARD OF RURAL HOMESTEAD; SURROUNDING HABITAT INCLUDED PASTURE DOMINATED BY NON-NATIVE GRASS, AND AGRICULTURAL LAND. |
| **General:** | ACTIVE NEST MONITORED IN 2010; NESTING PAIR OBSERVED, 2 YOUNG FLEDGED IN JUL. |
| **Owner/Manager:** | UNKNOWN |

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|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 2120 | **Map Index:** | 88305 | **EO Index:** | 89316 | **Element Last Seen:** | 2013-06-24 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2013-06-24 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2013-12-04 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Placer |

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|---|---|---|---|
| **Lat/Long:** | 38.78020 / -121.45067 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4293526 E634576 | **Elevation (ft):** | 50 |
| **PLSS:** | T11N, R05E, Sec. 29, NW (M) | **Acres:** | 0.0 |

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|---|---|
| **Location:** | ALONG CURRY CREEK, JUST EAST OF S BREWER RD; ABOUT 2 MILES NORTH OF BASELINE RD AT BREWER RD, WEST OF ROSEVILLE. |
| **Detailed Location:** | MAPPED TO COORDINATES & LOCATIONS FROM FIELD SURVEY FORMS, "ABOUT 100-150 FEET EAST OF S. BREWER ROAD AND 2.0 MILES NORTH OF BASELINE ROAD...TREE IS SOUTHEAST OF THE BRIDGE THAT CROSSES CURRY CREEK." |
| **Ecological:** | 2009 NEST IN WILLOWS, ABOUT 30' UP. PAIR RETURNED TO SAME NEST IN SUBSEQUENT YEARS. SURROUNDED BY GRAZING LAND, SEVERAL VERNAL POOLS NEARBY. |
| **General:** | SWAINSON'S HAWK OBSERVED ON NEST ON 21 APR AND 5 MAY 2009; NEST SUCCESS UNKNOWN. NESTING PAIR OBSERVED THROUGH JUN 2013; CHICK SEEN IN NEST ON 24 JUN 2013. |
| **Owner/Manager:** | PVT |

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| **Occurrence No.** | 2121 | **Map Index:** | 88307 | **EO Index:** | 89318 | **Element Last Seen:** | 2010-XX-XX |
| **Occ. Rank:** | Excellent | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2010-XX-XX |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2013-03-15 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer, Sutter

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|---|---|---|---|
| **Lat/Long:** | 38.76759 / -121.46922 | **Accuracy:** | 1/10 mile |
| **UTM:** | Zone-10 N4292099 E632988 | **Elevation (ft):** | 45 |
| **PLSS:** | T11N, R05E, Sec. 30, SW (M) | **Acres:** | 0.0 |

**Location:** E SIDE OF LOCUST RD, ABOUT 0.4 MI S OF JACKSON RD JUNCTION & 1.5 MI NW OF BREWER RD AT BASELINE RD; N OF RIO LINDA.

**Detailed Location:** MAPPED TO PROVIDED MAP.

**Ecological:** NEST IN EUCALYPTUS TREES ON MITIGATION BANK PROPERTY, ADJACENT TO RESTORED VERNAL POOL ANNUAL GRASSLAND.

**General:** NESTING PAIR OBSERVED IN 2009; NEST SUCCESS UNKNOWN. PAIR REPORTEDLY RETURNED TO NEST IN 2010; SUCCESS UNKNOWN.

**Owner/Manager:** PVT

### *Agelaius tricolor*

**Element Code:** ABPBXB0020

tricolored blackbird

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|---|---|---|---|---|---|
| **Listing Status:** | **Federal:** | None | **CNDDB Element Ranks:** | **Global:** | G1G2 |
| | **State:** | Threatened | | **State:** | S2 |
| | **Other:** | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern | | | |
| **Habitat:** | **General:** | HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA. | | | |
| | **Micro:** | REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY. | | | |

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| **Occurrence No.** | 584 | **Map Index:** | 96884 | **EO Index:** | 98112 | **Element Last Seen:** | 2014-04-19 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2015-04-16 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2016-02-01 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

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|---|---|---|---|
| **Lat/Long:** | 38.81829 / -121.40799 | **Accuracy:** | 1/10 mile |
| **UTM:** | Zone-10 N4297816 E638210 | **Elevation (ft):** | 70 |
| **PLSS:** | T11N, R05E, Sec. 10, NW (M) | **Acres:** | 0.0 |

**Location:** ABOUT 1 MI ESE OF SUNSET BLVD AT PETTIGREW RD, 1 MI WSW OF SUNSET BLVD AT AMORUSO WAY, W OF LINCOLN.

**Detailed Location:** COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "GLEASON RANCH SUNSET BLVD WEST." MAPPED TO PROVIDED LOCATION IN PORTAL.

**Ecological:** AREA FLOODED DUE TO BROKEN IRRIGATION PIPE, BLACKBERRY BRAMBLES REMOVED TO FIX PIPE, SIGNIFICANT RUNNING WATER NO LONGER EXISTS (2011). EXCELLENT HABITAT WITH HIMALAYAN BLACKBERRY, TULES, ADJACENT WATER, & FORAGING AROUND SITE IN 2014.

**General:** ~4,000 BIRDS OBSERVED ON 25 APR 2008; OBS INDICATED THAT MOST NEST BUILDING COMPLETE W/ EGG LAYING & INCUBATION IN PROGRESS. 0 OBS ON 16 APR 2011. ~6,500 BIRDS OBS NESTING ON 19 APR 2014; 0 BY 23 MAY. 200 OBS ON 9 APR 2015, 0 BY 16 APR.

**Owner/Manager:** PVT

### *Oncorhynchus mykiss irideus pop. 11*

**Element Code:** AFCHA0209K

steelhead - Central Valley DPS

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|---|---|---|---|---|---|
| **Listing Status:** | **Federal:** | Threatened | **CNDDB Element Ranks:** | **Global:** | G5T2Q |
| | **State:** | None | | **State:** | S2 |
| | **Other:** | AFS_TH-Threatened | | | |
| **Habitat:** | **General:** | POPULATIONS IN THE SACRAMENTO AND SAN JOAQUIN RIVERS AND THEIR TRIBUTARIES. | | | |
| | **Micro:** | | | | |

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|---|---|---|---|---|---|
| **Occurrence No.** | 4 | **Map Index:** 90980 | **EO Index:** 92029 | **Element Last Seen:** | 2007-XX-XX |
| **Occ. Rank:** | Unknown | | **Presence:** Presumed Extant | **Site Last Seen:** | 2007-XX-XX |
| **Occ. Type:** | Natural/Native occurrence | | **Trend:** Unknown | **Record Last Updated:** | 2013-12-03 |

**Quad Summary:** Roseville (3812173), Pleasant Grove (3812174), Verona (3812175), Gold Hill (3812182), Lincoln (3812183)

**County Summary:** Placer, Sutter

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|---|---|---|---|
| **Lat/Long:** | 38.89835 / -121.25897 | **Accuracy:** | non-specific area |
| **UTM:** | Zone-10 N4306937 E650978 | **Elevation (ft):** | |
| **PLSS:** | T12N, R06E, Sec. 12 (M) | **Acres:** | 2745.0 |

**Location:** AUBURN RAVINE UPSTREAM TO GOLD HILL DAM (=LOWER AUBURN RAVINE 1 DIVERSION DAM).

**Detailed Location:** MAPPED TO REACH OF STREAM CURRENTLY NAVIGABLE BY STEELHEAD (SH) PER CA FISH PASSAGE ASSESSMENT DATABASE. AS OF 2003, HEMPHILL DAM (38.897, -121.252) WAS THE U/S LIMIT TO MIGRATION. ANECDOTES OF RUNS IN 1930S AS FAR U/S AS WISE POWERHOUSE.

**Ecological:** SEASONAL, LOW-ELEV CK NOW YR-ROUND FROM TRANSFERS & NUISANCE FLOWS. SH POORLY DOCUMENTED. LIKELY SPAWNING & REARING AREA; SMALL FRY OBSERVED IN SPRING, JUVENILES YR-ROUND. 1/2-POUNDERS REPORTED. STOCKED W/OUT-OF-BASIN RAINBOW TROUT 1948-59.

**General:** 1992 SCALE ANALYSIS (N=1) & '95-96 SURVEYS INDICATED ANADROMY. JUVS CAUGHT IN '98-99 SURVEYS; INCL. APPARENT SMOLTS IN '98. JUVS & ADS 10-287 MM CAUGHT IN CDFW SURVEYS NOV-DEC 2004 & APR '05, ANADROMY PRESUMED. DETECTED 2007, PER CDFW DATA.

**Owner/Manager:** UNKNOWN

### *Branchinecta lynchi*

**Element Code:** ICBRA03030

vernal pool fairy shrimp

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|---|---|---|---|---|---|
| **Listing Status:** | **Federal:** | Threatened | **CNDDB Element Ranks:** | **Global:** | G3 |
| | **State:** | None | | **State:** | S3 |
| | **Other:** | IUCN_VU-Vulnerable | | | |
| **Habitat:** | **General:** | ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MOUNTAINS, AND SOUTH COAST MOUNTAINS, IN ASTATIC RAIN-FILLED POOLS. | | | |
| | **Micro:** | INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS. | | | |

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| **Occurrence No.** | 137 | **Map Index:** | 34810 | **EO Index:** | 2496 | **Element Last Seen:** | 1999-02-25 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 1999-02-25 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2011-07-08 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

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|---|---|---|---|
| **Lat/Long:** | 38.78337 / -121.44842 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4293880 E634766 | **Elevation (ft):** | 60 |
| **PLSS:** | T11N, R05E, Sec. 20, SW (M) | **Acres:** | 59.8 |

**Location:** NORTHEAST OF CURRY CREEK AT SOUTH BREWER ROAD, ABOUT 3 MILES SOUTHEAST OF PLEASANT GROVE.

**Detailed Location:** BASELINE BREWER MITIGATION SITE; A TOTAL OF 46 WATERBODIES WERE SURVEYED IN FEBRUARY/MARCH 1996. PROPERTY MANAGER: EVERGREEN MANAGEMENT.

**Ecological:** CONSTRUCTED AND EXISTING SEASONAL WATERBODIES WITHIN NON-NATIVE ANNUAL GRASSLAND. LASTHENIA FREMONTII, NAVARRETIA LEUCOCEPHALA, & ELOCHARIS MACROSTACHYA DOMINANT. LINDERIELLA OCCIDENTALIS ALSO PRESENT IN MITIGATION SITE.

**General:** 1996: B. LYNCHI OBS IN 7 POOLS (#105, 122, 140 & 143 OBS >50; POOLS #131, 133 & 148 OBS <50). 1997: 10'S OBS IN #107 & 142. 1998: 100'S OBS IN VP# 121, 142 & 143; 1000'S OBS IN VP #122. 1999: 100'S OBS IN MANY POOLS WITHIN MONITORED AREA.

**Owner/Manager:** PVT-ROSEVILLE 150 PARTNERSHIP

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| **Occurrence No.** | 155 | **Map Index:** | 33674 | **EO Index:** | 30808 | **Element Last Seen:** | 1997-01-16 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 1997-01-16 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-08-19 |

**Quad Summary:** Roseville (3812173), Pleasant Grove (3812174)

**County Summary:** Placer

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|---|---|---|---|
| **Lat/Long:** | 38.78731 / -121.34962 | **Accuracy:** | non-specific area |
| **UTM:** | Zone-10 N4294468 E643339 | **Elevation (ft):** | 100 |
| **PLSS:** | T11N, R06E, Sec. 19 (M) | **Acres:** | 2551.0 |

**Location:** VICINITY OF FIDDYMENT RD, FROM PLEASANT GROVE BLVD TO ABOUT 3 MILES NORTH, ROSEVILLE.

**Detailed Location:** MAPPED TO INCLUDE 1993 DETECTION LOCATIONS GIVEN AS T11N R6E SECTION 18 (SUGNET ID #91), T11N R5E SECTION 25 (SUGNET ID #89), AND BOUNDARY OF AREA SURVEYED IN 1997 IN SECTIONS 19 AND 30. EXACT LOCATIONS UNKNOWN.

**Ecological:** AERIAL PHOTOS INDICATE DEVELOPMENT IN THE VICINITY OF THE 1993 DETECTIONS; HABITAT MAY HAVE BEEN LOST. 1997: A MITIGATION AREA WITH SEASONAL WETLANDS, REFERENCE VERNAL POOLS, AND CONSTRUCTED POOLS IN ANNUAL GRASSLAND/OAK WOODLAND.

**General:** FOUND IN 3 OF 3 BASINS SAMPLED IN SEC 18, 16 JAN 1993. FOUND IN 5 OF 31 BASINS SAMPLED IN SEC 25, 27 JAN 1993. FOUND IN 71 BASINS, 16 JAN 1997.

**Owner/Manager:** UNKNOWN

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| **Occurrence No.** | 175 | **Map Index:** | 93436 | **EO Index:** | 30604 | **Element Last Seen:** | 2011-02-28 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2011-02-28 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-08-11 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Sutter |

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|---|---|---|---|
| **Lat/Long:** | 38.77301 / -121.49631 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4292661 E630625 | **Elevation (ft):** | 35 |
| **PLSS:** | T11N, R04E, Sec. 26, E (M) | **Acres:** | 0.0 |

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| **Location:** | WEST SIDE OF RAILROAD TRACKS, 0.7 MILE SW OF THE INTERSECTION OF PLEASANT GROVE RD AND SANKEY RD, WEST OF ROSEVILLE. |
| **Detailed Location:** | 1993 LOCATION GIVEN ONLY AS T11N, R4E, SECTION 26. MAPPED TO COORDINATES GIVEN FOR 2011 DETECTION. |
| **Ecological:** | 1993: MANMADE ROADSIDE DITCHES; LEPIDURUS PACKARDI ALSO OBSERVED. 2011: SMALL (3 FOOT X 3 FOOT) VERNAL POOL IN PASTURE DOMINATED BY NON-NATIVE GRASSES; DISTURBANCE FROM PIG FARMING EVIDENT. |
| **General:** | FOUND IN 1 OF 1 FEATURE SURVEYED ON 12 MAR 1993 (SUGNET RECORD #86). 5 REPRODUCTIVE ADULTS OBSERVED ON 28 FEB 2011. |
| **Owner/Manager:** | UNKNOWN |

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| **Occurrence No.** | 319 | **Map Index:** | 47287 | **EO Index:** | 48240 | **Element Last Seen:** | 2002-01-21 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2002-01-21 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2002-07-12 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Placer |

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|---|---|---|---|
| **Lat/Long:** | 38.85698 / -121.38635 | **Accuracy:** | non-specific area |
| **UTM:** | Zone-10 N4302143 E640013 | **Elevation (ft):** | 90 |
| **PLSS:** | T12N, R05E, Sec. 26 (M) | **Acres:** | 325.8 |

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| **Location:** | AITKEN RANCH MITIGATION BANK, ALONG AUBURN RAVINE SOUTH OF MOORE ROAD, N OF PLEASANT GROVE BLVD AND WEST OF DOWD AVE. |
| **Detailed Location:** | |
| **Ecological:** | HABITAT CONSISTS OF LIGHTLY GRAZED ANNUAL GRASSLAND AND VERNAL POOL LANDSCAPE. SWAINSON'S HAWK OBSERVED FORAGING (SPRING, SUMMER, FALL) IN VICINITY. SITE IS A CONSERVATION BANK. SURROUNDING LAND COMPRISED OF RICE FARMING AND CATTLE GRAZING. |
| **General:** | 21 JAN 2002: POPULATION OF POOL ESTIMATED TO BE IN 100'S; 1 MALE AND 1 FEMALE COLLECTED. |
| **Owner/Manager:** | PVT-WILDLANDS INC |

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| **Occurrence No.** | 626 | **Map Index:** | 78877 | **EO Index:** | 79848 | **Element Last Seen:** | 2015-01-14 |
| **Occ. Rank:** | Excellent | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2015-01-14 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2017-03-01 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Placer |

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|---|---|---|---|
| **Lat/Long:** | 38.81464 / -121.42896 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4297380 E636396 | **Elevation (ft):** | 65 |
| **PLSS:** | T11N, R05E, Sec. 09, SW (M) | **Acres:** | 65.0 |

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|---|---|
| **Location:** | REASON FARMS ENVIRONMENTAL PRESERVE. WEST OF PETTIGREW ROAD AND NORTH OF PLEASANT GROVE CREEK. |
| **Detailed Location:** | THE PRESERVE EXTENDS NORTH TO SUNSET BLVD WEST, BUT THE NORTHERN PORTION CONSISTS OF FALLOW AG FIELDS WITH NO VERNAL POOLS. MAPPED TO LOCATIONS GIVEN FOR OCCUPIED POOLS IN 2007, 2009, & 2010 REPORTS. |
| **Ecological:** | PRESERVE WITH VERNAL POOL GRASSLAND AND FALLOW AGRICULTURAL FIELDS; INCLUDED CREATED/RESTORED WETLANDS AND VERNAL POOLS AS WELL AS NATURAL/HISTORIC VERNAL POOLS AND WETLANDS. SITE USED FOR CATTLE GRAZING. |
| **General:** | 10S TO 100S DETECTED IN 4 OF 17 BASINS SAMPLED MAR 2007. 100S DETECTED IN 9 POOLS ON 4 FEB 2009. 100S TO 1000S DETECTED IN 12 OF 17 POOLS SAMPLED JAN-FEB 2010. 10S DETECTED IN 1 POOL, 25 JAN 2013. 100S DETECTED IN 5 POOLS, 2015. |
| **Owner/Manager:** | CITY OF ROSEVILLE |

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|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 706 | **Map Index:** | 93437 | **EO Index:** | 94575 | **Element Last Seen:** | 2011-02-28 |
| **Occ. Rank:** | Fair | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2011-02-28 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-10-31 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Sutter |

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|---|---|---|---|
| **Lat/Long:** | 38.75872 / -121.48810 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4291088 E631364 | **Elevation (ft):** | 40 |
| **PLSS:** | T11N, R04E, Sec. 36, W (M) | **Acres:** | 0.0 |

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|---|---|
| **Location:** | ALONG PLEASANT GROVE ROAD, 0.5 MILE NORTH OF RIEGO ROAD, NORTH OF RIO LINDA. |
| **Detailed Location:** | MAPPED TO COORDINATES GIVEN ON 2011 FIELD SURVEY FORM. NEAR ROAD AND ABANDONED RAILROAD GRADE. |
| **Ecological:** | 15 X 50 FOOT VERNAL POOL IN PASTURE DOMINATED BY NON-NATIVE GRASSES. VERNAL POOLS AND SEASONAL WETLANDS SCATTERED THROUGHOUT. |
| **General:** | 7 REPRODUCTIVE ADULTS OBSERVED ON 28 FEB 2011. |
| **Owner/Manager:** | UNKNOWN |

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| **Occurrence No.** | 728 | **Map Index:** | 93488 | **EO Index:** | 94617 | **Element Last Seen:** | 2014-03-25 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2014-03-25 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-11-14 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Placer |

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|---|---|---|---|
| **Lat/Long:** | 38.83591 / -121.41708 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4299758 E637387 | **Elevation (ft):** | 75 |
| **PLSS:** | T11N, R05E, Sec. 04 (M) | **Acres:** | 143.0 |

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| **Location:** | BETWEEN EAST CATLETT RD AND SUNSET BLVD WEST, FROM ABOUT 1-2 MILES EAST OF SOUTH BREWER RD, 5 MILES SW OF LINCOLN. |
| **Detailed Location:** | JOHN D. VINCENT VERNAL POOL PRESERVE (T12N R5E SEC 33) AND TOAD HILL RANCH MITIGATION BANK (T11N R5E SEC 3 AND EAST HALF OF T11N R5E SEC 4). MAPPED TO LOCATIONS GIVEN FOR OCCUPIED POOLS. |
| **Ecological:** | TWO PRESERVES TOTALLING 1,947 ACRES, WITH ABOUT 72 ACRES OF CREATED AND NATURAL VERNAL POOLS AND VERNAL SWALES IN GRAZED ANNUAL GRASSLAND. CLAM SHRIMP CYSTS (EULIMNADIA SP) FOUND AT TOAD HILL IN 2009 AND PRESUMED NON-NATIVE/INTRODUCED. |
| **General:** | JOHN D: FOUND IN UP TO 5 OF 69 POOLS, 2007. IN 11 POOLS, 2009. IN UP TO 10 POOLS, 2 FEB 2011. IN 7-8 POOLS, 2013. TOAD HILL: 0 FOUND IN DRY SAMPLES, 2009. ADULTS IN 8 OF 200 POOLS, 2012. IN 5 OF 115 POOLS, 2013. IN 3 OF 200 POOLS, 2014. |
| **Owner/Manager:** | PVT-WILDLANDS, INC |

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| **Occurrence No.** | 729 | **Map Index:** | 93489 | **EO Index:** | 94621 | **Element Last Seen:** | 2018-03-26 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2018-03-26 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2020-05-22 |

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| **Quad Summary:** | Pleasant Grove (3812174) |
| **County Summary:** | Placer, Sutter |

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|---|---|---|---|
| **Lat/Long:** | 38.76889 / -121.46588 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4292248 E633276 | **Elevation (ft):** | 50 |
| **PLSS:** | T11N, R05E, Sec. 30, SW (M) | **Acres:** | 91.0 |

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| **Location:** | LOCUST ROAD MITIGATION BANK, WEST SIDE OF LOCUST RD, 0.3 TO 0.7 MILE SE OF INTERSECTION WITH JACKSON RD, N OF RIO LINDA. |
| **Detailed Location:** | MAPPED TO LOCATIONS OF OCCUPIED POOLS. |
| **Ecological:** | 75 ACRE MITIGATION BANK WITH ABOUT 12 ACRES OF CREATED VERNAL POOLS AND SWALES IN ANNUAL GRASSLAND. SURROUNDING LAND USED FOR GRAZING AND RICE PRODUCTION. |
| **General:** | 50 FOUND IN 17 POOLS ON 16 FEB 2010. >100 FOUND IN 25 POOLS ON 26 JAN 2011. FOUND IN 28 OF 41 POOLS SAMPLED FEB-MAR 2012. MORE THAN 100 FOUND IN 26 OF 29 POOLS SAMPLED JAN-MAR 2013. FOUND IN 3 POOLS DURING 2018 SURVEYS. |
| **Owner/Manager:** | PVT-WILDLANDS, INC |

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| **Occurrence No.** | 731 | **Map Index:** | 93512 | **EO Index:** | 94645 | **Element Last Seen:** | 2016-02-08 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2016-02-08 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2016-05-26 |

**Quad Summary:** Roseville (3812173), Pleasant Grove (3812174)

**County Summary:** Placer

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|---|---|---|---|
| **Lat/Long:** | 38.80961 / -121.37438 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4296904 E641146 | **Elevation (ft):** | 90 |
| **PLSS:** | T11N, R05E, Sec. 13 (M) | **Acres:** | 45.0 |

**Location:** 0.7 TO 1.4 MILES WNW OF THE INTERSECTION OF HAYDEN PARKWAY AND FIDDYMENT ROAD, NW OF ROSEVILLE.

**Detailed Location:** 1993 DETECTIONS IN VICINITY, EXACT LOCATIONS UNKNOWN. 2005 DETECTION ON WEST ROSEVILLE SPECIFIC PLAN OPEN SPACE PRESERVE. 2007-2008 SURVEYS WERE ON "CREEKVIEW PROPERTY." 2009 DETECTIONS ON AMORUSO PROPERTY. 2016, ON FIDDYMENT WFB PARCELS.

**Ecological:** 1993: NATURAL VERNAL POOLS. 2005: NATURAL VERNAL POOLS ON PRESERVE; SURROUNDING AREA IS BEING DEVELOPED. 2009: VALLEY GRASSLAND WITH SCATTERED VERNAL POOLS, SWALES, AND SEASONAL WETLANDS.

**General:** FOUND IN 16 OF 52 POOLS IN SEC 13 & 4 OF 9 POOLS IN SEC 14, 1993 (SUGNET IDS #87 & 88). 100S FOUND IN 1 POOL, 2005. BRANCHINECTA CYSTS FOUND IN 11 BASINS, 2007. NOT FOUND IN 2007-08 WET SEASON. IN 10 POOLS, 2009. IN 4 POOLS, 2016.

**Owner/Manager:** PVT, CITY OF ROSEVILLE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 732 | **Map Index:** | 93527 | **EO Index:** | 94660 | **Element Last Seen:** | 2009-02-25 |
| **Occ. Rank:** | Excellent | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2009-02-25 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-09-24 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.81713 / -121.38204 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4297727 E640465 | **Elevation (ft):** | 100 |
| **PLSS:** | T11N, R05E, Sec. 11, NE (M) | **Acres:** | 10.0 |

**Location:** 0.5 TO 0.7 MILE SE OF INTERSECTION OF SUNSET BLVD WEST AND AMORUSO WAY, NW OF ROSEVILLE.

**Detailed Location:** AMORUSO PROPERTY, POOLS SW-48 AND VP-80.

**Ecological:** VALLEY GRASSLAND WITH SCATTERED VERNAL POOLS, SWALES, AND SEASONAL WETLANDS.

**General:** FOUND IN 15 POOLS, 2009 (2 MAPPED HERE, SEE ALSO OCCURRENCES #731 AND 788).

**Owner/Manager:** PVT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 788 | **Map Index:** | 93938 | **EO Index:** | 95067 | **Element Last Seen:** | 2009-02-25 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2009-02-25 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-11-13 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.82357 / -121.39483 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4298422 E639342 | **Elevation (ft):** | 90 |
| **PLSS:** | T11N, R05E, Sec. 11, NW (M) | **Acres:** | 14.0 |

**Location:** SOUTH SIDE OF SUNSET BLVD WEST, JUST WEST OF ITS INTERSECTION WITH AMORUSO WAY, NW OF ROSEVILLE.

**Detailed Location:** AMORUSO PROPERTY, POOLS VP-5, VP-15, AND VP-45.

**Ecological:** VALLEY GRASSLAND WITH SCATTERED VERNAL POOLS, SWALES, AND SEASONAL WETLANDS.

**General:** FOUND IN 15 POOLS, 2009 (3 MAPPED HERE, SEE ALSO OCCURRENCES #731 AND 732).

**Owner/Manager:** PVT

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 789 | **Map Index:** | 93941 | **EO Index:** | 95071 | **Element Last Seen:** | 2011-01-12 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2011-01-12 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-09-24 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.81593 / -121.45079 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4297491 E634498 | **Elevation (ft):** | 60 |
| **PLSS:** | T11N, R05E, Sec. 08 (M) | **Acres:** | 69.0 |

**Location:** BOTH SIDES OF S BREWER RD, 0.5 TO 0.8 MILE SOUTH OF SUNSET BLVD WEST, NORTH OF PLEASANT GROVE CREEK, NW OF ROSEVILLE.

**Detailed Location:** MAPPED TO COORDINATES GIVEN FOR OCCUPIED POOLS ON CLEMETSON PROPERTY.

**Ecological:** GRAZED ANNUAL GRASSLAND AND RIPARIAN CORRIDOR.

**General:** TENS TO THOUSANDS DETECTED IN 11 FEATURES ON 7 JAN AND 9 ON 12 JAN 2011.

**Owner/Manager:** PVT

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 790 | **Map Index:** | 93942 | **EO Index:** | 95072 | **Element Last Seen:** | 2011-01-17 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2011-01-17 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2014-09-24 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.82233 / -121.46023 | **Accuracy:** | 80 meters |
| **UTM:** | Zone-10 N4298187 E633666 | **Elevation (ft):** | 55 |
| **PLSS:** | T11N, R05E, Sec. 07, NE (M) | **Acres:** | 0.0 |

**Location:** 0.5 MILE WSW OF THE INTERSECTION OF SUNSET BLVD WEST AND SOUTH BREWER ROAD, NEAR PLEASANT GROVE, NW OF ROSEVILLE.

**Detailed Location:** CLEMETSON PROPERTY. MAPPED TO COORDINATES GIVEN FOR FEATURE SW-2.

**Ecological:** GRAZED ANNUAL GRASSLAND AND RIPARIAN CORRIDOR.

**General:** HUNDREDS DETECTED ON 17 JAN 2011.

**Owner/Manager:** PVT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 940 | **Map Index:** | B5544 | **EO Index:** | 118512 | **Element Last Seen:** | 2018-03-29 |
| **Occ. Rank:** | Good | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2018-03-29 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2020-05-22 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.82867 / -121.4412 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4298919 E635308 | **Elevation (ft):** | 65 |
| **PLSS:** | T11N, R05E, Sec. 5, SE (M) | **Acres:** | 3.0 |

**Location:** 0.6 MILES ENE OF BREWER RD AT SUNSET BLVD, PLEASANT GROVE, NW OF ROSEVILLE.

**Detailed Location:** IN TOAD HILL RANCH MITIGATION BANK. MAPPED ACCORDING TO PROVIDED MAP.

**Ecological:** SITE APPEARS TO BE CREATED WETLANDS FROM AN AREA THAT WAS FORMERLY USED FOR RICE FARMING.

**General:** FOUND IN 5 SMALL POOLS OF 67 SAMPLED ON 29 MAR 2018; POOLS MAY HAVE BEEN INOCULATED.

**Owner/Manager:** PVT

## *Lepidurus packardi*

**Element Code:** ICBRA10010

vernal pool tadpole shrimp

| | | | | | |
|---|---|---|---|---|---|
| **Listing Status:** | **Federal:** | Endangered | **CNDDB Element Ranks:** | **Global:** | G4 |
| | **State:** | None | | **State:** | S3 |
| | **Other:** | IUCN_EN-Endangered | | | |
| **Habitat:** | **General:** | INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER. | | | |
| | **Micro:** | POOLS COMMONLY FOUND IN GRASS-BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED AND HIGHLY TURBID. | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 27 | **Map Index:** | 94804 | **EO Index:** | 30805 | **Element Last Seen:** | 2013-02-11 |
| **Occ. Rank:** | Excellent | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 2013-02-11 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 2015-01-12 |

**Quad Summary:** Pleasant Grove (3812174), Sheridan (3812184)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.87837 / -121.39081 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4304510 E639584 | **Elevation (ft):** | 90 |
| **PLSS:** | T12N, R05E, Sec. 23, W (M) | **Acres:** | 79.0 |

**Location:** BETWEEN MARKHAM AND AUBURN RAVINES, FROM ABOUT 0.1 TO 0.9 MILE S OF WILLIAM LN AND 0.5 TO 0.9 MILE W OF S DOWD RD.

**Detailed Location:** S-MOST 2 POLYGONS MAPPED TO 1995-1996 DETECTIONS ON USAF LINCOLN COMMUNICATIONS FACILITY. REMAINING POLYGONS REPRESENT 2006-2013 DETECTIONS ON WESTERN PLACER SCHOOLS CONSERVATION BANK (WPCB) (EXACT LOCATIONS NOT GIVEN FOR 2006 DETECTIONS).

**Ecological:** 1995-1996: VERNAL POOLS IN ANNUAL GRASSLAND/OAK SAVANNA. 2006-2013: 220-ACRE PRESERVE (UP FROM 98 ACRES IN 2006) WITH MORE THAN 100 NATURALLY-OCCURRING VERNAL POOLS.

**General:** USAF: CARAPACES FOUND, 1994; 1 ADULT FOUND, 1995; 100S IN 4 POOLS, 2 COLLECTED (CASIZ#106745) 15 FEB 1996; 0 FOUND DEC 2009. WPCB: FOUND IN >25 POOLS, 2006; 50 IN 10 POOLS, 2009; >100 IN 8 POOLS, 3 FEB 2011; >100 IN 2 POOLS 11 FEB 2013.

**Owner/Manager:** DOD, PVT-WILDLANDS, INC

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 103 | **Map Index:** | 33706 | **EO Index:** | 30603 | **Element Last Seen:** | 1993-03-12 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 1993-03-12 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 1997-03-11 |

| | |
|---|---|
| **Quad Summary:** | Pleasant Grove (3812174), Verona (3812175) |
| **County Summary:** | Sutter |

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.81675 / -121.49758 | **Accuracy:** | 3/5 mile |
| **UTM:** | Zone-10 N4297513 E630435 | **Elevation (ft):** | 40 |
| **PLSS:** | T11N, R04E, Sec. 11 (M) | **Acres:** | 0.0 |

| | |
|---|---|
| **Location:** | SOUTHWEST OF THE INTERSECTION OF PLEASANT GROVE ROAD AND HOWSLEY ROAD. |
| **Detailed Location:** | ROADSIDE DITCHES SOMEWHERE IN SECTION 11. |
| **Ecological:** | MANMADE ROADSIDE DITCHES. |
| **General:** | LEPIDURUS PACKARDI OBSERVED IN THE 2 FEATURES INSPECTED. SUGNET RECORD #185. NO B. LYNCHI OBSERVED. |
| **Owner/Manager:** | UNKNOWN |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Occurrence No.** | 104 | **Map Index:** | 33707 | **EO Index:** | 30605 | **Element Last Seen:** | 1993-03-12 |
| **Occ. Rank:** | Unknown | | | **Presence:** | Presumed Extant | **Site Last Seen:** | 1993-03-12 |
| **Occ. Type:** | Natural/Native occurrence | | | **Trend:** | Unknown | **Record Last Updated:** | 1997-03-11 |

| | |
|---|---|
| **Quad Summary:** | Pleasant Grove (3812174), Verona (3812175) |
| **County Summary:** | Sutter |

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.77305 / -121.49794 | **Accuracy:** | 3/5 mile |
| **UTM:** | Zone-10 N4292663 E630483 | **Elevation (ft):** | 35 |
| **PLSS:** | T11N, R04E, Sec. 26 (M) | **Acres:** | 0.0 |

| | |
|---|---|
| **Location:** | SOUTHWEST OF THE INTERSECTION OF PLEASANT GROVE ROAD AND SANKEY ROAD. |
| **Detailed Location:** | ROADSIDE DITCHES SOMEWHERE IN SECTION 26. |
| **Ecological:** | MANMADE ROADSIDE DITCHES. |
| **General:** | LEPIDURUS PACKARDI OBSERVED IN THE ONE FEATURE INSPECTED. SUGNET RECORD #186. B. LYNCHI ALSO OBSERVED. |
| **Owner/Manager:** | UNKNOWN |

## *Gratiola heterosepala*

**Element Code:** PDSCR0R060

Boggs Lake hedge-hyssop

| | | | | | |
|---|---|---|---|---|---|
| **Listing Status:** | **Federal:** | None | **CNDDB Element Ranks:** | **Global:** | G2 |
| | **State:** | Endangered | | **State:** | S2 |
| | **Other:** | Rare Plant Rank - 1B.2, BLM_S-Sensitive | | | |
| **Habitat:** | **General:** | MARSHES AND SWAMPS (FRESHWATER), VERNAL POOLS. | | | |
| | **Micro:** | CLAY SOILS; USUALLY IN VERNAL POOLS, SOMETIMES ON LAKE MARGINS. 4-2410 M. | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Occurrence No.** | 96 | **Map Index:** 74381 | **EO Index:** | 75373 | **Element Last Seen:** 2008-05-06 |
| **Occ. Rank:** | Good | | **Presence:** | Presumed Extant | **Site Last Seen:** 2008-05-06 |
| **Occ. Type:** | Natural/Native occurrence | | **Trend:** | Unknown | **Record Last Updated:** 2009-04-06 |

**Quad Summary:** Pleasant Grove (3812174)

**County Summary:** Placer

| | | | |
|---|---|---|---|
| **Lat/Long:** | 38.80549 / -121.38999 | **Accuracy:** | specific area |
| **UTM:** | Zone-10 N4296423 E639798 | **Elevation (ft):** | 88 |
| **PLSS:** | T11N, R05E, Sec. 14, NW (M) | **Acres:** | 0.0 |

**Location:** NORTH OF PLEASANT GROVE CREEK, APPROX. 1.5 AIR MILES NW OF R. F. FIDDYMENT RANCH, NW OF ROSEVILLE.

**Detailed Location:** MAPPED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 14 ACCORDING TO LAT/LONG COORDINATES PROVIDED BY FISHER.

**Ecological:** OCCURS IN ONE OF THE DEEPER BASIN VERNAL POOLS IN THE AREA; ONLY VERNAL POOL WITH STANDING WATER AT TIME OF SURVEY (1-2"). ASSOCIATED WITH ERYNGIUM VASEYI, NAVARRETIA LEUCOCEPHALA, DOWNINGIA BICORNUTA, AND THE RARE DOWNINGIA PUSILLA.

**General:** 1000-1500 PLANTS OBSERVED IN 2006. 1000 PLANTS OBSERVED IN A SUBSEQUENT VISIT IN 2008.

**Owner/Manager:** PVT

# APPENDIX C – U.S. FISH AND WILDLIFE SERVICE IPAC

**IPaC** **U.S. Fish & Wildlife Service**

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.



## Location

Placer County, California

## Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

# Reptiles

| NAME | STATUS |
|---|---|
| Giant Garter Snake Thamnophis gigas<br>Wherever found<br>No critical habitat has been designated for this species.<br>https://ecos.fws.gov/ecp/species/4482 | Threatened |

# Fishes

| NAME | STATUS |
|---|---|
| Delta Smelt Hypomesus transpacificus<br>Wherever found<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>https://ecos.fws.gov/ecp/species/321 | Threatened |

# Insects

| NAME | STATUS |
|---|---|
| Monarch Butterfly Danaus plexippus<br>Wherever found<br>No critical habitat has been designated for this species.<br>https://ecos.fws.gov/ecp/species/9743 | Candidate |
| Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus<br>Wherever found<br>There is **final** critical habitat for this species. The location of the critical habitat is not available.<br>https://ecos.fws.gov/ecp/species/7850 | Threatened |

# Crustaceans

| NAME | STATUS |
|---|---|

Conservancy Fairy Shrimp Branchinecta conservatio — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8246

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2246

# Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.



# Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

**The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.



| NAME | BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.) |
|---|---|

Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726



# Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

**Probability of Presence** (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

**Breeding Season** (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort** (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

**No Data** (–)
A week is marked as having no data if there were no survey events for that week.

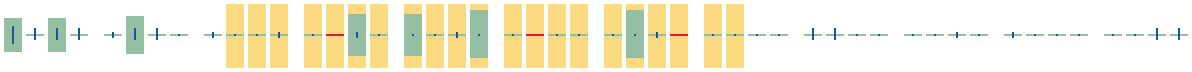
**Survey Timeframe**
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



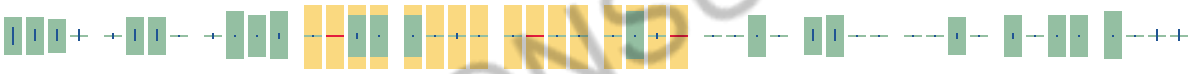
▪ probability of presence ▪ breeding season | survey effort – no data

Short-billed Dowitcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tricolored Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Yellow-billed Magpie BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)





**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

**Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

**What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.



# Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA

Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

**Data limitations**

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

**Data exclusions**

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.



# Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

# Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.



### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should

seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

# APPENDIX D - PHOTO PLATE

1. Escarpment looking east

2. Escarpment looking west

*February 23, 2022*

**Cox Planning Solutions**
**Philip RD, Placer County, CA**


3. Water inputs to south end of parcel "detention basin"


4. South parcel eastern drainage ditch


5. Interior live oak at northwest corner of south side of parcel

6. Valley oaks at northwest corner along south side of parcel escarpment

7. Northern irrigation canal looking east

8. Northern irrigation channel at northwest corner looking west

*February 23, 2022*

**Cox Planning Solutions**
**Philip RD, Placer County, CA**

9. Debris obstruction along northern irrigation canal

*February 23, 2022*

**Cox Planning Solutions**
**Philip RD, Placer County, CA**

**10. Photo showing DP6 in VP4.** *September 16, 2025*

**11. Photo showing DP14 in VP9. Burn left no identifiable vegetation.** *September 16, 2025*

**12. Photo showing DP16 in VP10, with hoof prints in soil left from the wet season.** *September 16, 2025*

**13. Photo showing upland point DP24. Area was determined to lack wetland features due to soil containing roadbase and fill with very little redox.** *September 16, 2025*