
Appendix C

Biological Resources Report

June 15, 2022 (Revised September 1, 2023)

14324

Vickie Sanders, Parks Manager
County of El Dorado, Chief Administrative Office-Parks Division
330 Fair Lane, Placerville, CA 95667

Subject: Biological Resources Assessment for the Diamond Springs Community Park Project in El Dorado County, CA

Dear Ms. Sanders,

Dudek has prepared this Biological Resources Assessment (BRA) for the Diamond Springs Community Park (Proposed Project) located in community of El Dorado in unincorporated El Dorado County (County), California. The purpose of the BRA is to identify and characterize existing onsite biological resources, with particular focus on the potential of the Project site to support special-status plant and wildlife species and other sensitive resources, such as wetlands and other aquatic resources potentially under the regulatory jurisdiction of state and/or federal resource agencies. This assessment also identifies potential constraints to Project implementation posed by the presence or potential presence of sensitive resources, as well as recommendations to minimize and/or avoid impacts to these resources.

1 Project Location

The 39.59-acre Project site (APN 331-400-002 and 331-301-019) is located the unincorporated community of El Dorado, approximately 4 miles southwest of the city of Placerville, El Dorado County, California (Figure 1, Project Location). The Project site is located in the western foothills of the Sierra Nevada Mountains. The area is characterized by gently rolling foothills and low-gradient streams that flow that flow southward towards the Cosumnes River. Elevations on the Project site range from approximately 1,670 to 1,720 feet above mean sea level. The site is situated in Township 9 North, Range 10 East, and Section 1 within the 7.5-minute U.S. Geological Survey (USGS) Placerville quadrangle. The approximate center of the Project site corresponds to 38.6682004 north latitude and -120.833082 west longitude.

2 Project Description

The County is proposing the Proposed Project, an approximate 40-acre community park within the community of El Dorado. Implementation of the Project would allow for development of a vacant and underutilized property within the County. The Project would offer various passive and active recreational amenities to the local community as well as sports clubs, regional sports leagues, and nearby schools. Park elements may include a combination of recreation elements such as basketball courts, ball fields, tennis/sports courts, indoor recreation/gym buildings, as well as natural preserve and trail areas, interpretive/learning areas, open turf, public restrooms, and seating areas. Walking paths, lighting, and landscaping would may also be included as a part of the development, as would a designated parking area.

3 Methods

3.1 Preliminary Site Evaluation

Prior to conducting the survey, Dudek performed a review of pertinent online and literature sources. This consisted of a review of the following online databases and reports: the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) Trust Resource Report, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB), and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants (USFWS 2022a; CDFW 2022a; CNPS 2022a). The IPaC report was based on a query for the Project site. The CNDDDB and CNPS databases were queried for the nine USGS 7.5-minute quadrangles containing and immediately surrounding the Project site (*Placerville, Camino, Aukum, Fiddletown, Latrobe, Shingle springs, Coloma, Garden Valley, Slate Mtn.*). Following a review of these resources, Dudek biologists determined the potential for special-status plant and wildlife species to occur onsite. Determinations were based on a review of habitat types, soils, and elevation preferences, as well as the known geographic range and nearest occurrence records of each species. No protocol-level surveys for special-status species were conducted.

For this report, special-status plant and wildlife species are defined as those that are (1) listed, proposed for listing, or candidates for listing as Threatened or Endangered under the federal Endangered Species Act; (2) listed or candidates for listing as Threatened or Endangered under the California Endangered Species Act; (3) a state fully-protected species; (4) a CDFW Species of Special Concern; or (5) a species listed on the CNPS Inventory of Rare and Endangered Plants with a California Rare Plant Rank (CRPR) of 1 or 2.

3.2 Field Surveys

3.2.1 Biological Field Survey

Dudek biologists Laura Burris and Lorna Haworth performed a biological field survey of the Project site on April 28, 2022. The survey was conducted on foot to visually cover the entire Project site. Representative site photographs of the Project site are included in Attachment A.

All plant species encountered were identified to the lowest taxonomic level needed to determine rarity. Those species that could not be immediately identified were brought into the laboratory for further investigation. Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2022), and common names follow the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2022a).

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. The site was also scanned with binoculars to aid in the identification of wildlife. A list of plant and wildlife species identified on the Project site during the survey is included in Attachment B.

3.2.2 Aquatic Resources Delineation

Concurrent with the fieldwork on April 28, 2022, Laura Burris performed a preliminary field delineation on April 28, 2022, to identify and map the extent of aquatic resources within or adjacent to the Project site that are potentially subject to regulation under federal Clean Water Act (CWA) Sections 401 and 404, California Fish and Game Code Section 1600, or the provisions of the Porter-Cologne Water Quality Act.

The aquatic resources delineation was reconnaissance in nature and was not conducted to the level of detail required for aquatic resources permitting. Additional investigation will be required if aquatic resources permitting is necessary. Results of the aquatic resources delineation are incorporated into this assessment.

4 Results

4.1 Site Description

The Project site is located in the western foothills of the Sierra Nevada Mountains, in the Cosumnes River watershed. The area is characterized by gently rolling foothills and low-gradient streams that flow southward towards the Cosumnes River. Elevations on the Project site range from approximately 1,670 to 1,720 feet above mean sea level. The Project site is surrounded by residential development and open grassland and oak woodland. The Project site is located in a warm and temperate climate where average annual temperatures range from approximately 32.6°F to 91.4°F, and the average annual precipitation is 43.8 inches. On average, the months with the highest rainfall are December and January, and July has the least precipitation (WRCC 2022).

4.2 Soils

There are six soil mapping units mapped on the Project site: Diamond Springs very fine sandy loam, 9-15% slopes, mixed alluvial land, Sobrante very rocky silt loam, 3-30% slopes, Boomer-Sites loams, 9-15% slopes, Mariposa gravelly silt loam, 3-30% slopes, and Diamond Springs very rocky very fine sandy loam, 3-50% slopes (2022b) (Figure 2, Soil Types). Both the primary and secondary soil series are described below. No exposed serpentine soils or outcrops were observed on the Project site during the field survey. According to Calflora (2022), no serpentine soils are mapped on the Project site; the nearest serpentine soils are mapped near Shingle Springs northwest of the Project site. Soils on the Project site are slightly to moderately acidic (Calflora 2022).

Diamond Springs very fine sandy loam, 9-15% Slopes: This soil unit is dominated by the Diamond Springs series which consists of well drained soils formed from fine grained metamorphosed acid igneous and rhyolitic rocks. Diamond Springs series are on gentle to steep slopes in a semiarid climate. None of the soil map unit is classified as hydric (USDA 2022c). This map unit comprises the northwestern portion of the Project site.

Mixed alluvial land: This soil unit contains soils formed in alluvium from mixed sources. Texture ranges from sand to silt. This map unit is associated with Deadman Creek flowing through the eastern portion of the Project site. This soil type is associated with drainages and streams and is considered hydric.

Sobrante very rocky silt loam, 3-30% slopes: This soil unit is dominated by the Sobrante series which consists of moderately deep, well drained soils formed in material weathered from basic igneous and metamorphic rocks.

Sobranite soils are on foothills in moist subhumid climate. None of the soil map unit is classified as hydric (USDA 2022c). This map unit comprises the eastern portion of the Project site.

Boomer-Sites loams, 9-15% slopes: This soil unit is dominated (55%) by the Boomer series which consists of deep and very deep, well drained soils that formed in material weathered from metavolcanic and basic igneous rocks. Boomer soils are on foothills and mountains. The second dominant map unit is the Sites series which consists of deep or very deep, well drained soils formed in material weathered from metabasic and metasedimentary rocks. Sites soils are on summits and backslopes of mountain slopes in Mediterranean climate. None of the soil map unit is classified as hydric (USDA 2022c). This map unit comprises the eastern portion of the Project site.

Mariposa gravelly silt loam, 3-30% slopes: This soil unit is dominated by the Mariposa series which consists of moderately deep, well drained soils formed in material weathered from metasedimentary rocks. Mariposa soils are on mountains in Mediterranean climates. None of the soil map unit is classified as hydric (USDA 2022c). This map unit comprises the southern portion of the Project site.

Diamond Springs very rocky very fine sandy loam, 3-50% slopes: This soil unit is dominated by the Diamond Springs series which consists of well drained soils formed from fine grained metamorphosed acid igneous and rhyolitic rocks. Diamond Springs series are on gentle to steep slopes in a semiarid climate. None of the soil map unit is classified as hydric (USDA 2022c). This map unit comprises the southern portion of the Project site.

4.3 Hydrology

The Project site occurs within the Martinez Creek subwatershed (Hydrologic Unit Code 180400130203), within the greater Cosumnes River Watershed (Figure 3, Hydrologic Setting; CDFW 2022). The Project site is located in the foothills of the western Sierra Nevada Mountains and Deadman Creek flows north to south through the site. Water from the site drains to Deadman Creek and flows south to Martinez Creek, which drains south to the Lower North Fork Cosumnes River which in turn drains southwest to the Sacramento/San Joaquin River Delta.

The Project site contains an intermittent stream (Deadman creek) that flows in a southern direction from the northeast to south boundary of the Project site. There is an ephemeral channel and two drainage ditches from the west to east boundary of the Project site. NHD (USGS 2022) identifies Deadman's creek and NWI (USFWS 2022) identifies both the creek and wetland near the northwest Project area boundary. These datasets are mapping at a coarse scale, providing reconnaissance-level data on the presence, location, and size of waters.

4.4 Vegetation Communities and Land Cover Types

Land cover in the Project site consist of natural vegetation communities. The vegetation communities and land covers have been adapted from the Manual of California Vegetation, Online Edition (CNPS 2022). The following vegetation communities and land cover types were documented in the Project site and are described in further detail below: Baltic and Mexican rush marsh, interior live oak woodland and forest, blue oak woodland and forest, and wild oats and annual brome grassland (Figure 4, Vegetation Communities and Land Cover Types). A total of 131 species of native or naturalized plants, 80 native (61%) and 51 non-native (39%), was recorded in the Project site during the field delineation (see Attachment B).

Table 1. Vegetation Communities Mapped on the Project Site

Abbreviation	Vegetation Community/ Land Cover Type	Vegetation Alliance and CDFW Alliance Code	Sensitive? (Y/N)	Acreeage
Vegetation Communities				
<i>Herbaceous</i>				
BGA	Wild Oats and Annual Brome Grasslands	Wild Oats and Annual Brome Grasslands (<i>Avena spp.</i>) <i>Bromus diandrus</i> Association; 42.026.11	No	5.31
BR-FS	Baltic and Mexican Rush Marshes	Baltic and Mexican Rush Marshes (<i>Juncus arcticus var. balticus</i>) <i>Carex pergracilis</i> Association; 45.562.04	No	1.74
<i>Woodland</i>				
MOW	Mixed Oak Woodland	Mixed oak – Pinus Sabiniana/grass Association; 71.100.07	No	12.10
ILO-GP	Interior Live Oak – Gray Pine Woodland and Forest	Interior Live Oak – Shreve Oak Woodland and Forest (<i>Quercus wislizeni</i>) <i>Pinus sabiniana</i> /annual grass – herb Association; 71.080.42	No	6.47
BOW	Blue Oak Woodland and Forest	<i>Quercus douglasii</i> /Mixed herbaceous; 71.020.05 Association; 71.020.11	No	7.96
BO-VO	Blue Oak – Valley Oak Woodland	Blue oak woodland and forest (<i>Quercus douglasii</i>) <i>Quercus lobata</i> Association; 71.020.11	Yes	5.01
Land Cover				
DEV	Developed	NA	No	0.58
Total:				38.59

Notes: Totals may not sum due to rounding. NA: not applicable. State (S) ranks of 1-3 are considered highly imperiled by CDFW (2021a). Global (G) ranks are as follows: GX – eliminated; GH – presumed eliminated; G1 – critically imperiled; G2 – imperiled; G3 – vulnerable; G4 – apparently secure; G5 – secure.

4.4.1 Wild Oats and Annual Brome Grassland

Wild oats and annual brome grassland occurs in the southern end of the Project site. Great brome (*Bromus diandrus*) is dominant in the herbaceous layer with other mixed grasses and herbs including soft chess (*Bromus hordeaceus*), wild oats (*Avena barbata*), California poppy (*Eschscholzia californica*), sky lupine (*Lupinus nanus*), and yarrow (*Achillea millefolium*).

4.4.2 Baltic and Mexican Rush Marsh

Baltic and Mexican rush marsh occurs in two wetted meadows in the northwestern and south-central areas of the Project site. Baltic rush (*Juncus arcticus var. balticus*) is dominant or co-dominant with clustered field sedge (*Carex praegracilis*) in the herbaceous layer along with saturated soils.

4.4.3 Mixed Oak Woodland and Forest

Mixed oak woodland and forest occurs in the north and central areas of the Project site. Interior live oak (*Quercus wislizenii*) is dominant or co-dominant in the tree canopy with other species present including blue oak (*Quercus douglasii*), foothill pine (*Pinus sabiniana*), California black oak (*Quercus kelloggii*), and valley oak (*Quercus lobata*). The herbaceous layer is dominated by non-native annual grass species similar to those found in the wild oats and annual brome grassland described above.

4.4.4 Interior Live Oak – Gray Pine Woodland and Forest

Interior live oak – Shreve oak woodland and forest occurs in the northern area of the Project site. Interior live oak (*Quercus wislizenii*) is dominant or co-dominant in the tree canopy with other species present including foothill pine (*Pinus sabiniana*). The shrub layer is intermittent and comprised of Himalayan blackberry (*Rubus armeniacus*), common manzanita (*Arctostaphylos manzanita*), buckbrush (*Ceanothus cuneatus*), and poison oak (*Toxicodendron diversilobum*). The herbaceous layer is dominated by non-native annual grass species similar to those found in the wild oats and annual brome grassland described above.

4.4.5 Blue Oak Woodland and Forest

Blue oak woodland and forest occurs in the southwestern areas of the Project site. Blue oak (*Quercus douglasii*) is dominant or co-dominant in the tree canopy with other species present including valley oak (*Quercus lobata*), interior live oak (*Quercus wislizenii*), and foothill pine (*Pinus sabiniana*). The tree canopy is not densely vegetated and resembles more of a savannah than woodland or forest. The herbaceous layer is dominated by non-native annual grass species.

4.4.6 Blue Oak – Valley Oak Woodland and Forest

Blue oak and valley oak woodland and forest occurs in the eastern area of the Project site, surrounding Deadman creek. Blue oak (*Quercus douglasii*) is dominant or co-dominant in the tree canopy with other species present including valley oak (*Quercus lobata*). Breaks in the tree canopy intermittently include Himalayan blackberry (*Rubus armeniacus*) in the shrub layer. The herbaceous layer is dominated by non-native annual grass species.

4.5 Aquatic Resources

During the field delineation, Dudek mapped approximately 1.93 acres of aquatic resources anticipated to meet the criteria to be considered jurisdictional aquatic resources under federal and/or state jurisdiction (Figure 5, Aquatic Resources). These resources are listed in Table 2 below and are described in more detail further below. Findings with regard to federal jurisdiction are preliminary until verified by the Sacramento District of the U.S. Army Corps of Engineers (USACE).

Table 2. Aquatic Resources Mapped on the Project Site

Feature ID	Cowardin Code ¹	Acres ²	Linear Feet
Non-Wetland Waters			
Deadman Creek	R4	0.05	1,223.36
Ephemeral Drainage (ED-01)	R6	0.02	357.68
Drainage Ditch (D-01)	R6	<0.01	59.71
Drainage Ditch (D-02)	R6	<0.01	92.41
		Total Non-Wetland Waters	0.08
Wetlands			
Freshwater Emergent Wetland (FEW-01)	PEM	0.86	—
Freshwater Emergent Wetland (FEW-02)	PEM	0.90	—
Seasonal Wetland (SW-01)	PEM	0.07	—
Seasonal Wetland (SW-02)	PEM	0.02	—
		Total Wetlands	1.85
		Total³	1.93
			1,732.82

Source: USFWS 2013.

¹ R6 = riverine, ephemeral; PEM = Palustrine emergent wetland

² Acreage of the non-wetland waters extend to the ordinary high water mark.

³ Minor discrepancies in totals are the result of rounding differences between Excel and ArcMap

4.5.1 Wetlands

4.5.1.1 Freshwater Emergent Wetlands

Two freshwater emergent wetlands (FEW-01 and -02) totaling 1.76 acres occur within the Project site (see Attachment 1, Photo 7). These wetlands correspond to the Baltic and Mexican rush marsh described in Section 4.4.2, and are dominated by Baltic rush and field sedge, both of which are hydrophytic plants. Hydrology in these wetlands was evidenced by saturation and some standing water. Soils were dark with prominent redox features. The westernmost emergent wetland, FEW-01, appears to be fed in part by rainwater runoff from surrounding hills and groundwater due to a shallow water table. FEW-02 is also influenced by a shallow groundwater table associated with Deadman Creek.

4.5.1.2 Seasonal Wetlands

Two seasonal wetlands (SW-01 and -02) totaling 0.09 acre occur within the Project site (see Attachment 1). SW-01 is associated with an offsite drainage ditch that appears to transfer rainwater and irrigation runoff from adjacent parcels south towards Deadman Creek. A culvert under the gravel road in the central part of the Project site empties into SW-01. SW-01 is dominated by hydrophytic vegetation such as Douglas meadowfoam (*Limnanthes douglasii*) and Italian ryegrass (*Festuca perennis*). Hydrology in SW-01 is evidenced by standing water, and hydric soils are dark with prominent redox along pore lining and root channels. Water drains from SW-01 southeast through drainage ditches to FEW-02 and eventually Deadman Creek.

SW-02 is located on a stream terrace east of Deadman Creek. Hydrophytic vegetation in SW-02 includes curly dock (*Rumex crispus*),

4.5.2 Non-Wetland Waters

4.5.2.1 Deadman Creek

There is one intermittent channel (Deadman Creek) comprising approximately 1,223.36 linear feet (0.05-acre) within the Project site (see Attachment 1). Hydrology of this channel appears to be dependent on several factors: inputs during rain events and runoff from the surrounding uplands, potential input from seeps and high groundwater table, and releases from Patterson Lake, a man-made lake north of the Project site. Deadman Creek flows from the northern Project boundary south and off the Project site. The substrates in the channel vary from sandy and gravelly to cobble and small boulder. There are several small steps in the channel creating pool habitat. The channel ranges from 1 to 4 feet in width through the Project site and becomes more incised and rocky as it travels south. The margin of the channel was dominated by Douglas meadowfoam, Italian ryegrass, Baltic rush, and seep monkeyflower (*Erythraea guttata*). Evidence of OHWM included a sharp break in slope, changes in the character of soil, destruction of terrestrial vegetation, sediment sorting, bed and bank, and change in plant community and/or cover.

4.5.2.2 Ephemeral Drainage

There is one ephemeral drainage (ED-01) comprising approximately 357.68 linear feet (0.02-acre) within the Project site (see Attachment 1). Hydrology of this channel is dependent on inputs during rain events and runoff from the surrounding uplands, and contains flowing water during, and for a short duration after, precipitation events. ED-01 channels water in a westerly direction towards Deadman Creek; however, the incised channel peters out and water appears to sheet flow from the end of the channel to Deadman Creek. The channel itself was dominated by non-native upland grasses and surrounded by grassland and oak woodland species previously described in Section 4.4.6. Evidence of OHWM included a moderate break in slope, changes in the character of soil, destruction of terrestrial vegetation, bed and bank, and change in plant cover.

4.5.2.3 Drainage Ditch

There are two drainage ditches (D-01 and -02) totaling approximately 152.11 linear feet (0.02 acre) within the Project site (see Attachment 1). Both man-made drainage ditches are associated with SW-01 and FEW-02 and channel water in an easterly direction towards Deadman Creek. D-01 originates at SW-01 and channels water east to a culvert under a gravel road. D-02 drains water from D-01 east towards FEW-02 and eventually Deadman Creek. Both drainage ditches are linear depressions constructed in grassland. Evidence of OHWM included a moderate break in slope, changes in the character of soil, bed and bank, and change in plant community and/or cover. Both drainage ditches had water at the time of the survey and the banks contained hydrophytic plant species such as tall flatsedge (*Cyperus eragrostis*) and annual rabbitsfoot grass (*Polypogon monspeliensis*).

4.6 Plant and Wildlife Species Observed

A total of 131 species of native or naturalized plants, 80 native (61%) and 51 non-native (39%), were recorded on the Project site (Attachment 2). Dudek biologists directly observed, or documented via scat, sign, or call, eight native wildlife species on the Project site during the field survey. Observed wildlife species included Anna's hummingbird (*Calypte anna*), California scrub-jay (*Aphelocoma californica*), California quail (*Callipepla californica*), turkey vulture

(*Cathartes aura*), mourning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*), American robin (*Turdus migratorius*), acorn woodpecker (*Melanerpes formicivorus*), and Bewick's wren (*Thryomanes bewickii*). One non-native bird species, European starling (*Sturnus vulgaris*) was also observed. A list of the plant and wildlife species identified on the Project site during the field survey is included in Attachment B. No special-status wildlife or plants were observed during the field survey, although no species-specific or focused surveys were conducted.

4.7 Special-Status Plant and Wildlife Species

Based on the known habitat life history requirements (e.g., vegetation types, soils, and elevation preferences) of the target list of special-status plant and wildlife species identified as a result of the literature and database review described in Section 3.1, and the known geographic range and nearest occurrence records of each of these species, the potential of each of these species to occur on or adjacent to the Project site was determined (Attachment 3a, Special-Status Plant Species Potential to Occur in the Project Site Region, and Attachment 3b, Special-Status Wildlife Species Potential to Occur in the Project Site Region). The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided.

- Known to occur: the species has been documented on the Project site by a reliable source.
- High potential to occur: the species has not been documented on the Project site but is known to recently occur in the vicinity and suitable habitat is present.
- Moderate potential to occur: the species has not been documented on the Project site or in the Project vicinity, but the site is within the known range of the species and suitable habitat for the species is present.
- Low potential to occur: the species has not been documented in the Project vicinity or on the Project site, but the site is within the known range of the species; however, suitable habitat for the species onsite is of low quality.
- Not expected to occur: the Project site is outside the known geographic or elevational range of the species and/or the site does not support suitable habitat for the species.

4.7.1 Special-Status Plant Species

Results of USFWS, CNDDDB, and CNPS database searches revealed 34 special-status plant species that are known to occur in the Project site region (Figure 6, CNDDDB). Of these 17 species, 10 are not expected to occur, 5 have low potential to occur, and 3 have a moderate potential to occur. Species that not expected to occur are determined by the lack of suitable habitat or the presence of very low quality habitat within or adjacent to the Project site, the lack of documented occurrences near the Project site, and/or the site being outside of the species' known geographic or elevation range; these species are identified in Attachment 3a, but not addressed further in this report.

The 3 special-status plant species that have a moderate potential to occur are described as follows:

Nissenan manzanita (*Arctostaphylos nissenana*) is a CRPR 1B.2 species with a moderate potential to occur on the Project site. Nissenan manzanita is a perennial evergreen shrub found in chaparral or closed-cone coniferous forest from approximately 1,475-3,606 feet above sea level (CNPS 2022). It blooms February and March. Chaparral habitat is present and there are 3 documented occurrences within 5 miles southeast of the Project site (CNDDDB 2022).

Red Hills soaproot (*Chlorogalum grandiflorum*) is a CRPR 1B.2 species with a moderate potential to occur on the Project site. Red Hills soaproot is a perennial bulbiferous herb found in chaparral, cismontane woodland, or lower montane coniferous forest from approximately 805-5,540 feet above sea level (CNPS 2022). This species is sometimes found on gabbroic or serpentinite soils. It blooms May and June. Chaparral and cismontane woodland habitat are present on the Project site; while the site lacks ultramafic soils there is still a moderate potential for this species to occur. There are multiple documented occurrences within 10 miles north, west, and south of the Project site (CNDDDB 2022).

Parry's horkelia (*Horkelia parryi*) is a CRPR 1B.2 species with a moderate potential to occur on the Project site. Parry's Horkelia is a perennial herb found in chaparral and cismontane woodland from approximately 260-3,510 feet above sea level (CNPS 2022). It blooms April through September. Chaparral and cismontane woodland are present on site and the nearest documented occurrence is a historical record from 1923 within 5 miles north of the Project site (CNDDDB 2022).

4.7.2 Special-Status Wildlife Species

Results of the USFWS and CNDDDB searches revealed 10 special-status wildlife species have been previously observed and documented in the Project site region (Figure 6, CNDDDB). Of these 10 species, 6 are not expected to occur within the Project site, 2 have low potential to occur, one has moderate potential to occur, and one has high potential to occur. Species that not expected to occur are determined by the lack of suitable habitat or the presence of very low quality habitat within or adjacent to the Project site, the lack of documented occurrences near the Project site, or due to the site being outside of the species' known geographic or elevation range; these species are identified in Attachment 3b, but not addressed further in this report.

The two special-status animal species that have a high and moderate potential to occur, respectively, are described as follows:

Foothill yellow-legged frog (*Rana boylei*) has high potential to occur on the Project site. This species is protected under the federal and state Endangered Species Acts. Suitable habitat features including a freshwater stream and oak woodland are present on the Project site. The site is within the species range and there are multiple documented occurrences within 10 miles of the site, including one less than 2 miles southwest of the Project site (CNDDDB 2022). The second closest occurrence is documented south of the Project site in Martinez Creek, to which Deadman Creek is tributary. Deadman Creek onsite contains a variety of substrates, margin vegetation, gradients, and shade. It provides suitable habitat for foothill yellow-legged frog throughout its course onsite.

Western pond turtle (*Emys marmorata*) has moderate potential to occur on the Project site. This species is a CDFW species of special concern. Suitable habitat features for this species include a freshwater stream and adjacent

uplands on the Project site. The site is within the species range and there are multiple occurrences within 10 miles of the site, including one less than 2 miles southwest of the Project site (CDFW 2022).

4.7.3 Nesting Birds and Raptors

The Project site provides suitable nesting habitat for numerous local and migratory bird or raptor species protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. Specifically, trees, shrubs, and open habitat on the Project site provide suitable nesting habitat. Common bird species detected during the April 28, 2022 field survey included Anna's hummingbird (*Calypte anna*), California scrub-jay (*Aphelocoma californica*), California quail (*Callipepla californica*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaidura macroura*), European starling (*Sturnus vulgaris*), American robin (*Turdus migratorius*), acorn woodpecker (*Melanerpes formicivorus*), and Bewick's wren (*Thryomanes bewickii*). No species of concern were detected (refer to Attachment B). One active acorn woodpecker nest was observed, but a focused survey for nests was not conducted.

4.8 Sensitive Vegetation Communities

Blue oak-Valley oak woodland and forest is a sensitive vegetation community identified the Project site. This vegetation community is associated with the Deadman Creek corridor where it flows from north to south through the Project site.

5 Conclusions and Recommendations

5.1 Special-Status Plants

Based on a field assessment and literature review, there are six CRPR 1 plant species with a moderate or high potential to occur on the Project site: Nissenan manzanita, Stebbins' morning-glory, Pine Hill ceanothus, Red Hills soaproot, Pine Hill flannelbush, and Parry's Horkelia. These species were not identified on the Project site during the April 28, 2022 field survey. The field survey was outside the bloom season for Nissenan manzanita and Red Hills soaproot; however, both of these species have distinct characteristics that allows for partial identification outside the bloom season. Nissenan manzanita is distinguished from other co-occurring manzanita species in the area such as common manzanita and hoary manzanita (*Arctostaphylos viscida*) by the leaf-like inflorescence bracts, which were not present on the shrubs identified onsite. Thus, it is determined that no Nissenan manzanita is present within the Project site. Red Hills soaproot is distinguished from the more common soaproot (*C. pomeridianum* and spp.) by the size of the flower; thus, because there were several occurrences of *Chloragalum* species onsite that did not yet contain inflorescences, these individuals could not be accurately identified to a taxonomic level suitable to determine rarity. Eventual development on the Project site could result in impacts to this species if present within or immediately adjacent to the Project footprint. Impacts could include the destruction of individual plants or populations of plants that may become established in the construction footprint prior to ground disturbance.

Although Red Hills soaproot is not state or federally listed as threatened or endangered, it is considered of special status in California and, as such, impacts to this species would potentially be considered significant under CEQA. If special-status plants are determined to be in areas proposed to be impacted, and if impacts to the plants cannot be avoided, appropriate measures would need to be implemented to mitigate, pursuant to CEQA, the loss of any plants. Such mitigation measures may include, but are not limited to, translocation of special-status species,

preservation of on-site or off-site populations, or establishment of additional on-site or off-site populations at agency-approved locations.

Dudek recommends that prior to any construction-related activities, a rare plant survey shall be conducted to determine if there are any special-status plants within the project area and which may potentially be disturbed. Surveys shall be timed according to the blooming period for the target species, and known reference populations will be visited prior to surveys to confirm the species is evident and identifiable at the time of the survey. If special-status species are identified, avoidance zones may be established around plant populations to clearly demarcate areas for avoidance. Avoidance measures and buffer distances may vary between species, and the specific avoidance zone distance will be determined in coordination with the appropriate resource agencies. No construction activity or grading would be permitted within the avoidance zone. Where avoidance is infeasible, and the plant(s) are subject to removal or potential damage from construction, the project applicant shall develop and implement a mitigation plan pursuant to State and Federal regulation. The mitigation plan shall provide for no net loss of habitat and shall include, but is not limited to, relocation of the affected plants, replanting, and monitoring of relocated and planted specimens.

5.2 Special-Status Wildlife

Foothill Yellow-legged Frog. Although foothill yellow-legged frog has been documented downstream of the Project site in a larger tributary to Cosumnes River, the likelihood for this species to breed on the Project site is lessened due to insufficient hydrology and the potential for the stream to dry up during dry years. This species prefers perennial stream habitat. There is potential for foothill yellow-legged frog to use Deadman Creek for foraging and refugia when there is sufficient hydrology and connectivity to downstream habitat. Eventual Project development could potentially impact individual foothill yellow-legged frog individuals that may use Deadman Creek as refugia and/or movement habitat. As a state-listed endangered species, direct impacts to this species would be considered “take” under the California Endangered Species Act as well as a significant impact under CEQA. Dudek recommends avoiding direct impacts to Deadman Creek which could support this species. If avoidance is not feasible, Dudek recommends implementing the following measures:

- A qualified biologist familiar with foothill yellow-legged frog identification and ecology will conduct a preconstruction survey for foothill yellow-legged frog within 48 hours prior to ground-disturbance in suitable aquatic habitat. If any foothill yellow-legged frog are found, construction activities will stop in the suitable aquatic habitats, and the appropriate agencies (CDFW and/or USFWS) will be contacted immediately for further guidance.
- A qualified biological will provide environmental awareness training for construction personnel prior to the onset of work in or near suitable aquatic habitat. The training will include information on how to recognize foothill yellow-legged frog, the importance of avoiding impacts to this species, and what to do if they are found. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.
- A qualified biologist will be present on site during any ground-disturbing activities adjacent to or in aquatic habitat to monitor for foothill yellow-legged frog. The biologist has the authority to stop work if foothill yellow-legged frog are detected in the work area and could be harmed by construction.
- Prior to construction in riparian or aquatic habitat, Environmentally Sensitive Area (ESA) fencing will be established along the limits of construction adjacent to the riparian and aquatic habitats to exclude

construction activities from avoided habitat. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground-disturbing activities will be permitted in the ESA.

- Equipment fueling, maintenance, and staging shall not be conducted within 50 feet of aquatic habitat, including drainages, ponds, and seeps.

Western Pond Turtle. Although no western pond turtle were detected during the April 28, 2022 survey, Deadman Creek provides potentially suitable aquatic habitat for this species. Uplands adjacent to the creek provide potentially suitable nesting and aestivation habitat for this species. Eventual development of the Project site could impact this species if nesting or aestivation sites or individual western pond turtle are present in the construction footprint prior to ground disturbance. Direct or indirect impacts to this species would likely be considered a potentially significant impact under CEQA. To avoid or minimize impacts to WPT, Dudek recommends implementing the following measures:

- A qualified biologist shall conduct a survey for WPT within 48 hours prior to the start of construction activities in or within 50 feet of suitable aquatic habitat. If turtles are observed, additional searches for nests sites shall be conducted and any identified sites shall be delineated with high-visibility flagging or fencing and avoided during construction activities. If avoidance is not possible, the nest and/or turtle shall be removed by a qualified biologist and relocated to an appropriate location in coordination with CDFW.
- If turtles and/or nests are encountered during the preconstruction survey, a qualified biologist shall be present during grubbing and clearing activities in suitable habitat to monitor for WPT. If a turtle is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction may resume when the biologist has either relocated the turtle to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the turtle has moved away from the construction zone.

Nesting Birds. Eventual development on the Project site could involve structure and vegetation removal, which has the potential to impact nesting birds protected by the federal MBTA and California Fish and Game Code. Direct or indirect impacts to nesting birds would likely be considered a potentially significant impact under CEQA. To avoid impacting active nests, Dudek recommends conducting tree or vegetation removal outside of the nesting season (September through February). If not feasible, Dudek recommends implementing the following measures to avoid or minimize impacts to nesting birds.

- A qualified biologist shall conduct a pre-construction survey for nesting birds no more than two days prior to vegetation or structure removal or ground-disturbing activities conducted during the nesting season (February through August). The survey should cover the limits of construction and suitable nesting habitat within 500 feet for raptors and 100 feet for other nesting birds, as feasible and accessible.
- If any active nests are observed during surveys, a qualified biologist shall establish a suitable avoidance buffer from the active nest. The buffer distance will typically range from 50 to 500 feet and should be determined based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests should be established in the field with flagging, fencing, or other appropriate barriers and should be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.
- If vegetation removal activities are delayed, additional nest surveys should be conducted such that no more than 7 days elapse between the survey and vegetation removal activities.

- If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest should be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest.

5.3 Sensitive Vegetation Communities

Blue oak – valley oak woodland is a sensitive vegetation community that is also associated with a drainage that is assumed to be under the jurisdiction of the CDFW pursuant to Section 1602 of the California Fish and Game Code. Dudek recommends avoidance of this mapped community. If avoidance of this vegetation community is not feasible by eventual development on the Project site, direct impacts to button willow thicket would be considered a significant impact under CEQA and would require prior authorization from the CDFW in the form of a Streambed Alteration Agreement, which will likely require compensatory mitigation for any trimming or removal of button willow thicket. Compensatory mitigation may involve implementing a restoration and mitigation monitoring plan, prepared by a qualified botanist and approved by CDFW, to off-set vegetation impacts. These plans normally contain, at a minimum, mitigation goals and objectives, mitigation location, a discussion of actions to be implemented to mitigate the impact, performance criteria, monitoring methods, and actions to be taken in the event that the mitigation is not successful. Compensatory mitigation may take place on site or at an appropriate off-site location as approved by the CDFW.

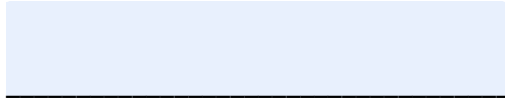
5.4 Aquatic Resources

Dudek mapped approximately 1.93 acres of aquatic resources anticipated to meet the criteria to be considered jurisdictional aquatic resources under federal and/or state jurisdiction. Findings with regard to federal jurisdiction are preliminary until verified by the Sacramento District of the USACE.

Dudek recommends that eventual development on the Project site avoid aquatic resources where possible. Impacts to jurisdictional aquatic resources would be considered a significant impact under CEQA and would require aquatic resource permits from the USACE, RWQCB, and/or CDFW (e.g., 404 Nationwide Permit, 401 Water Quality Certification and 1600 Streambed Alteration Agreement), as well as a Preliminary Jurisdictional Delineation from the USACE to document aquatic resources onsite within USACE jurisdiction. In addition, compensatory mitigation may be required for permanent impacts to aquatic resources to ensure no net loss of these resources. Potential compensatory mitigation options include purchasing mitigation credits from an agency-approved wetlands mitigation bank or paying an agency-approved in-lieu fee. Where direct impacts to jurisdictional aquatic resources can be avoided, exclusion fencing should be installed between the avoided aquatic resource and limits of disturbance to protect from indirect impacts. A qualified wetland specialist should guide installation of the exclusion fencing. Appropriate best management practices and spill prevention measures should also be implemented to ensure protection of jurisdictional aquatic resources during Project construction.

If you have any questions or concerns regarding the content of this report, please contact me at 916.835.9671 or lburris@dudek.com.

Sincerely,



Laura Burris
Senior Biologist

Att.: *Figures 1-6*
Attachment 1 Photo Log
Attachment 2a Plant Compendium
Attachment 2b Wildlife Compendium
Attachment 3a Plant Species Potential to Occur
Attachment 3b Wildlife Species Potential to Occur
cc: *Christine Fukasawa, Dudek*

6 References Cited

- Calflora: Information on California plants for education, research and conservation. [web application]. Updated August 19, 2021. Berkeley, California: The Calflora Database [a non-profit organization]. Available: <https://www.calflora.org/>. Accessed April 2022.
- CCH (California Consortium of Herbaria). 2022. Consortium of California Herbaria. University of California, Berkeley. ucjeps.berkeley.edu/consortium/
- CDFW (California Department of Fish and Wildlife). 2022a. RareFind 5. California Natural Diversity Database. CDFW, Biogeographic Data Branch. Accessed April 2022. <https://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>.
- CDFW. 2022b. California Wildlife Habitat Relationships: Life History Accounts and Range Maps. Accessed January 2022. <https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range>
- CDFW. 2022c. California Natural Community List. Biogeographic Data Branch, Sacramento, CA. August 18, 2021. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>.
- CNPS (California Native Plant Society). 2001. CNPS Botanical Survey Guidelines. California Native Plant Society, Sacramento, CA. December 9, 1983, revised June 2, 2001. Accessed April 2022. https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf
- CNPS, Rare Plant Program. 2022a. Inventory of Rare and Endangered Plants (online edition, v9-01 1.0). California Native Plant Society, Sacramento, CA. Accessed April 2022. <http://www.rareplants.cnps.org>
- CNPS. 2022b. A Manual of California Vegetation Online. Accessed April 2022. <http://vegetation.cnps.org/>.
- Jepson Flora Project. 2022. Jepson eFlora. Berkeley, California: University of California. Accessed April 2022. <http://ucjeps.berkeley.edu/IJM.html>.

USDA (United States Department of Agriculture). 2022a. NRCS (Natural Resources Conservation Service). The PLANTS Database (<http://plants.usda.gov>, 09/16/2021). National Plant Data Team, Greensboro, NC USA.

USDA. 2022b. Web Soil Survey for Lassen County. NRCS, Soil Survey Staff. Accessed April 2022. <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

USDA. 2022c. "Hydric Soils of the United States". NRCS, Soil Survey Staff. Accessed April 2022. <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>.

USFWS (United States Fish and Wildlife Service). 2022a. IPaC (Information for Planning and Consultation) Search. Accessed January 2022. <https://ecos.fws.gov/ipac/>.

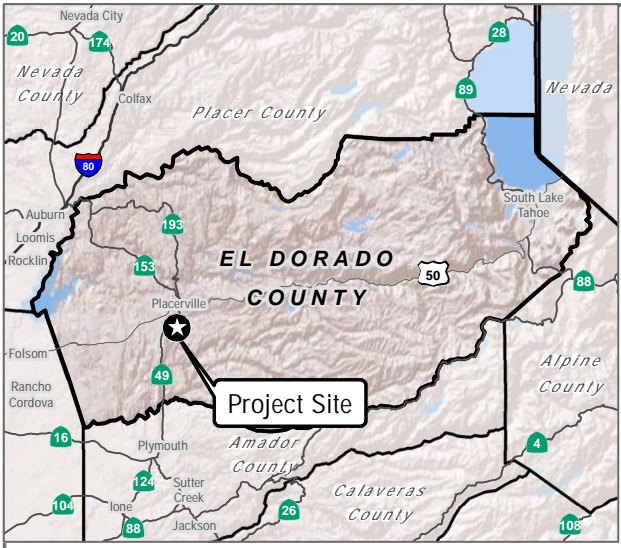
USFWS. 2022b. "The National Wetlands Inventory." Accessed April 2022. fws.gov/wetlands/NWI/index.html.

USGS (U.S. Geological Survey). 2022. "Placerville, CA" [map]. 7.5-Minute Series (Topographic). Accessed May 2022. <https://www.usgs.gov/core-science-systems/ngp/tnm-delivery/>.

WRCC (Western Regional Climate Center). 2022. Historical Climate Information: Placerville, California (046960). Accessed April 2022. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6960>.



Figures 1-6

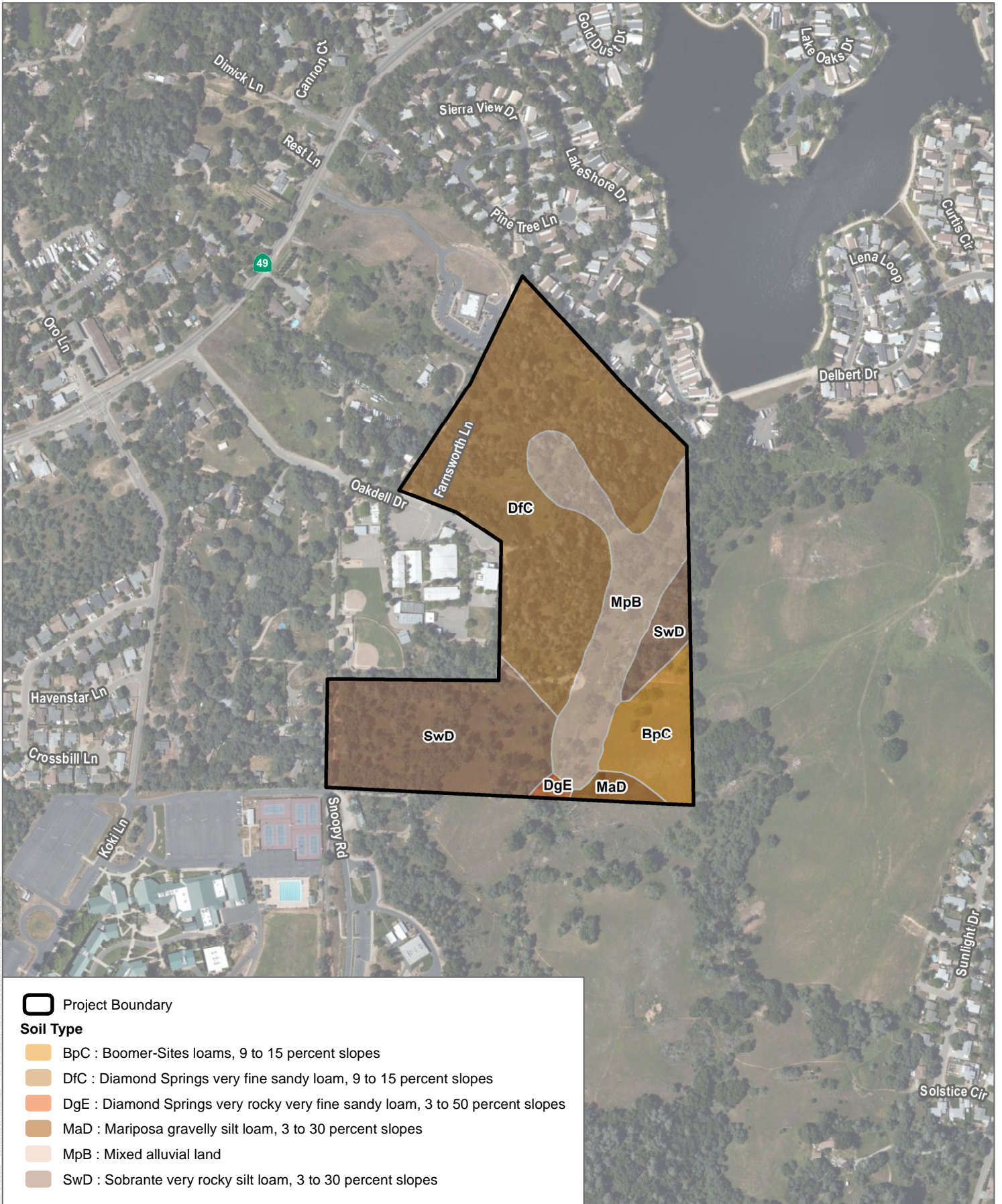


SOURCE: Bing Maps 2021, OpenStreetMap









FIGURE 1

Project Site and Vicinity

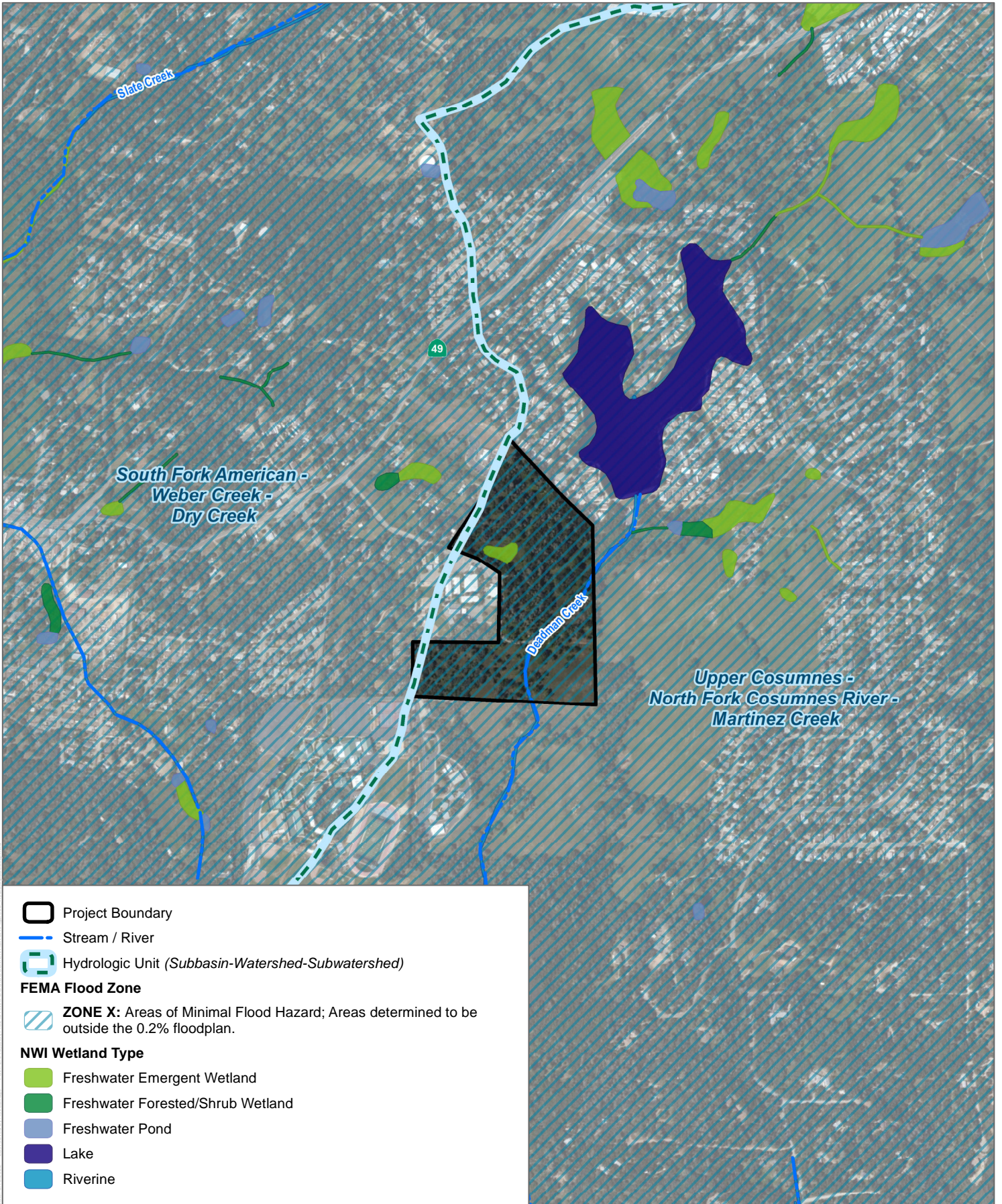


 Project Boundary

Soil Type

-  BpC : Boomer-Sites loams, 9 to 15 percent slopes
-  DfC : Diamond Springs very fine sandy loam, 9 to 15 percent slopes
-  DgE : Diamond Springs very rocky very fine sandy loam, 3 to 50 percent slopes
-  MaD : Mariposa gravelly silt loam, 3 to 30 percent slopes
-  MpB : Mixed alluvial land
-  SwD : Sobranite very rocky silt loam, 3 to 30 percent slopes

SOURCE: Bing Maps 2021, OpenStreetMap



SOURCE: Bing Maps 2021, OpenStreetMap

FIGURE 3

Hydrologic Setting



SOURCE: Bing Maps 2021, OpenStreetMap

FIGURE 4

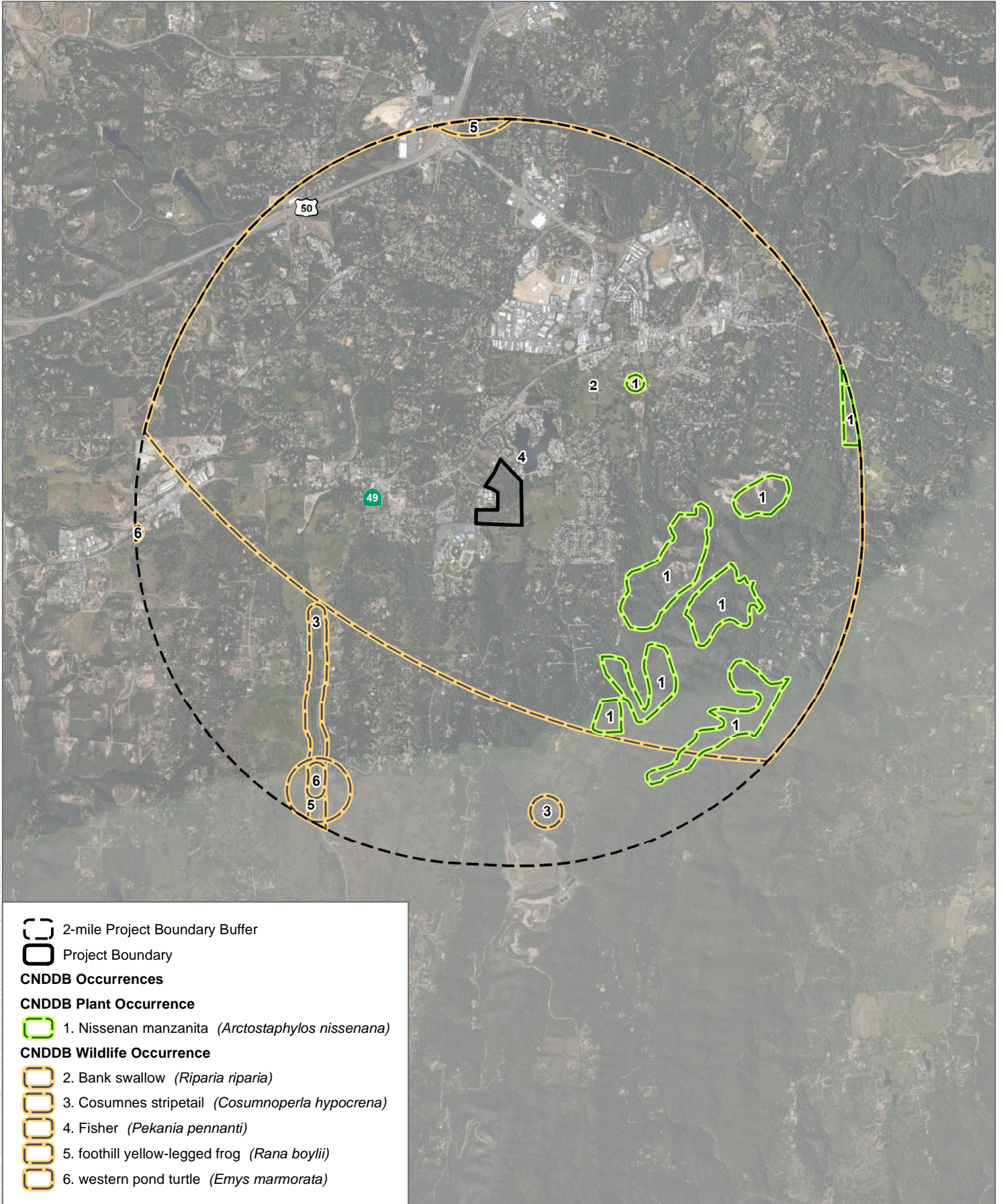
Vegetation Communities and Land Cover Types











SOURCE: Bing Maps 2021, OpenStreetMap

FIGURE 5

Aquatic Resources Delineation



-  2-mile Project Boundary Buffer
-  Project Boundary
- CNDDB Occurrences**
- CNDDB Plant Occurrence**
-  1. Nissenan manzanita (*Arctostaphylos nissenana*)
- CNDDB Wildlife Occurrence**
-  2. Bank swallow (*Riparia riparia*)
-  3. Cosumnes stripetail (*Cosumnoperla hypocrena*)
-  4. Fisher (*Pekania pennanti*)
-  5. foothill yellow-legged frog (*Rana boylei*)
-  6. western pond turtle (*Emys marmorata*)

SOURCE: Bing Maps 2021, OpenStreetMap

FIGURE 6
CNDDB Occurrences within 2 Miles



Attachment A

Representative Project Site Photos



Photo 1. View of interior live oak and gray pine woodland in the northern portion of the project site.



Photo 2. View of mixed oak woodland in the central portion of the project site.

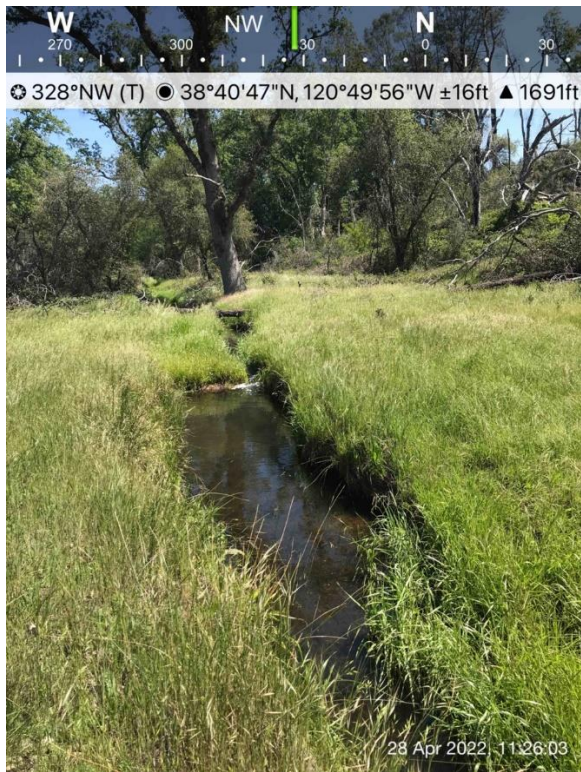


Photo 3. View of the start of Deadman Creek within the project boundary along the east side.



Photo 4. View of great brome association at the southeast corner of the project site.



Photo 5. View of mixed grassland at the southeast corner of the project site.



Photo 6. View of the end of Deadman Creek within the project boundary along the south.



Photo 7. View of Baltic rush – field sedge in the south-central portion of the project site.



Photo 8. View of blue oak savannah in the southwestern portion of the project site.



Attachment B

List of Plant and Wildlife Species Observed on the Project Site

Row Labels**VASCULAR SPECIES****EUDICOTS**

ANACARDIACEAE—Sumac Or Cashew Family
 Toxicodendron diversilobum—poison oak

APIACEAE—Carrot Family
 Sanicula bipinnatifida—purple sanicle
 Sanicula crassicaulis—Pacific blacksnakeroot
 Scandix pecten-veneris—shepherdsneedle*
 Torilis arvensis—spreading hedgeparsley*

ASTERACEAE—Sunflower Family
 Achillea millefolium—common yarrow
 Agoseris grandiflora—bigflower agoseris
 Baccharis pilularis—coyote brush
 Carduus pycnocephalus—Italian plumeless thistle*
 Centaurea solstitialis—yellow star-thistle*
 Cirsium vulgare—bull thistle*
 Hypochaeris glabra—smooth cat's ear*
 Hypochaeris radicata—hairy cat's ear*
 Lactuca serriola—prickly lettuce*
 Logfia gallica—narrowleaf cottonrose*
 Madia elegans—common madia
 Matricaria discoidea—disc mayweed
 Micropus californicus—q-tips
 Pseudognaphalium luteoalbum—Jersey cudweed*
 Psilocarphus tenellus—slender woollyheads
 Taraxacum officinale—common dandelion*
 Tragopogon porrifolius—salsify*
 Wyethia glabra—Coast Range mule-ears

BORAGINACEAE—Borage Family
 Amsinckia menziesii—Menzies' fiddleneck
 Eriodictyon californicum—California yerba santa
 Nemophila heterophylla—small baby blue eyes
 Plagiobothrys nothofulvus—popcorn flower
 Plagiobothrys stipitatus—stalked popcornflower

BRASSICACEAE—Mustard Family
 Barbarea orthoceras—American yellowrocket
 Thysanocarpus curvipes—sand fringe pod

CAPRIFOLIACEAE—Honeysuckle Family
 Lonicera hispidula—pink honeysuckle
 Symphoricarpos albus—common snowberry

CARYOPHYLLACEAE—Pink Family
 Cerastium glomeratum—sticky chickweed*
 Stellaria media—common chickweed*

ERICACEAE—Heath Family
 Arbutus menziesii—madrone
 Arctostaphylos manzanita—common manzanita
 Arctostaphylos viscida—whiteleaf manzanita

FABACEAE—Legume Family
 Acemison americanus—Spanish clover
 Acemison wrangelianus—Chilean bird's-foot trefoil

Total count of species: **131**
 Total native species 80 61%
 Total non-native species: 51 39%

Text to copy and paste (special, unformatted text) into results section of BTR:

A total of 131 species of native or naturalized plants, 80 native (61%) and 51 non-native (39%), was recorded on the site (see Appendix A).

Right click and select refresh below for list of CRPR species on site:

On Project Site? X = Yes X

Scientific Name—Common Name	Status (Federal/State/CRPR)
Grand Total	

Cytisus scoparius—broom*
 Genista monspessulana—French broom*
 Lavandula stoechas—French lavender*
 Lupinus bicolor—miniature lupine
 Lupinus nanus—sky lupine
 Trifolium campestre—field clover*
 Trifolium dubium—suckling clover*
 Trifolium hirtum—rose clover*
 Trifolium subterraneum—subterranean clover*
 Trifolium willdenovii—tomcat clover
 Vicia hirsuta—tiny vetch*
 Vicia sativa—garden vetch*
 Vicia villosa—winter vetch*
 FAGACEAE—Oak Family
 Quercus douglasii—blue oak
 Quercus kelloggii—California black oak
 Quercus lobata—valley oak
 Quercus wislizeni var. wislizeni—interior live oak
 GERANIACEAE—Geranium Family
 Erodium botrys—longbeak stork's bill*
 Geranium dissectum—cutleaf geranium*
 Geranium molle—dovefoot geranium*
 JUGLANDACEAE—Walnut Family
 Juglans hindsii—Northern California black walnut
 LAMIACEAE—Mint Family
 Marrubium vulgare—horehound*
 Mentha pulegium—pennyroyal*
 Salvia sonomensis—creeping sage
 LIMNANTHACEAE—Meadowfoam Family
 Limnanthes douglasii—Douglas' meadowfoam
 LYTHRACEAE—Loosestrife Family
 Lythrum hyssopifolia—hyssop loosestrife*
 MALVACEAE—Mallow Family
 Sidalcea asprella—dwarf checkerbloom
 MONTIACEAE—Montia Family
 Claytonia parviflora—streambank springbeauty
 OROBANCHACEAE—Broom-rape Family
 Castilleja attenuata—attenuate Indian paintbrush
 Castilleja lineariloba—no common name
 PAPAVERACEAE—Poppy Family
 Eschscholzia californica—California poppy
 PHRYMACEAE—Lopseed Family
 Erythranthe guttata—common monkey flower
 PLANTAGINACEAE—Plantain Family
 Collinsia heterophylla—purple Chinese houses
 Plantago lanceolata—narrowleaf plantain*
 Veronica peregrina—neckweed
 POLEMONIACEAE—Phlox Family
 Leptosiphon bicolor—true babystars
 Leptosiphon parviflorus—variable linanthus
 Navarretia leucocephala ssp. leucocephala—whitehead navarretia
 POLYGONACEAE—Buckwheat Family
 Pterostegia drymarioides—woodland pterostegia

Rumex acetosella—common sheep sorrel*
Rumex crispus—curly dock*

RANUNCULACEAE—Buttercup Family
Delphinium variegatum—royal larkspur
Ranunculus aquatilis—white water crowfoot
Ranunculus muricatus—spinyfruit buttercup*
Ranunculus occidentalis—western buttercup

RHAMNACEAE—Buckthorn Family
Ceanothus cuneatus—wedge leaf ceanothus, buck brush
Frangula californica ssp. tomentella—California buckthorn
Frangula californica—California coffee berry

ROSACEAE—Rose Family
Drymocallis glandulosa—sticky cinquefoil
Heteromeles arbutifolia—toyon
Prunus cerasifera—cherry plum*
Rubus armeniacus—Himalayan blackberry*

RUBIACEAE—Madder Family
Galium aparine—stickywilly
Galium porrigens—graceful bedstraw

SALICACEAE—Willow Family
Salix lasiolepis—arroyo willow

SCROPHULARIACEAE—Figwort Family
Verbascum thapsus—common mullein*

SOLANACEAE—Nightshade Family
Solanum xanti—Purple nightshade

VALERIANACEAE—Valerian Family
Plectritis macrocera—longhorn plectritis

VIOLACEAE—Violet Family
Viola purpurea—goosefoot violet

VISCAEAE—Mistletoe Family
Phoradendron leucarpum—oak mistletoe

FERNS AND FERN ALLIES
PTERIDACEAE—Brake Family
Pentagramma triangularis—goldback fern

GYMNOSPERMS AND GNETOPHYTES
CUPRESSACEAE—Cypress Family
Calocedrus decurrens—incense cedar

PINACEAE—Pine Family
Pinus ponderosa—Ponderosa pine
Pinus sabiniana—foothill pine

MONOCOTS
AGAVACEAE—Agave Family
Chlorogalum pomeridianum—wavyleaf soap plant

CYPERACEAE—Sedge Family
Carex bolanderi—Bolander's sedge
Carex fracta—fragile sheath sedge
Carex praegracilis—clustered field sedge

IRIDACEAE—Iris Family
Sisyrinchium bellum—western blue-eyed grass

JUNACEAE—Rush Family
Juncus balticus—no common name
Juncus bufonius—toad rush
Juncus xiphioides—irisleaf rush

Luzula comosa—Pacific woodrush
LILIACEAE—Lily Family
Calochortus monophyllus—yellow star-tulip
POACEAE—Grass Family
Aira caryophyllea—silver hairgrass*
Avena barbata—slender oat*
Briza minor—little quakinggrass*
Bromus diandrus—ripgut brome*
Bromus hordeaceus—soft brome*
Cynosurus echinatus—annual dogtails*
Elymus caput-medusae—medusahead*
Elymus glaucus—blue wildrye
Festuca bromoides—brome fescue*
Festuca myuros—rat-tail fescue*
Festuca perennis—perennial rye grass*
Hordeum marinum—seaside barley*
Hordeum murinum—mouse barley*
Pleuropogon californicus—annual semaphoregrass
Poa bulbosa—bulbous bluegrass*
Poa pratensis—Kentucky blue grass*
Poa secunda—onesided bluegrass
THEMIDACEAE—Brodiaea Family
Dipterostemon capitatus—bluedicks

On Project Site? X = Yes X

Row Labels

BIRDS

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

JAYS, MAGPIES & CROWS

CORVIDAE—CROWS & JAYS

Aphelocoma californica—California scrub-jay

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

PIGEONS & DOVES

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

STARLINGS & ALLIES

STURNIDAE—STARLINGS

Sturnus vulgaris—European starling*

THRUSHES

TURDIDAE—THRUSHES

Turdus migratorius—American robin

WOODPECKERS

PICIDAE—WOODPECKERS & ALLIES

Melanerpes formicivorus—acorn woodpecker

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

TOTAL SPECIES COUNT: 9

Total Native Species: 8

Total Non-Native Species: 1

Right click and select refresh below for list of special-status species on site.

On Project Site? X = Yes X

Scientific Name-Common Name **Status (Federal/State)**

Grand Total

B-AZBV	<i>Vireo belli arizonae</i>	Arizona Bell's vireo	None/SE	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
B-LBVI	<i>Vireo belli pusillus</i>	least Bell's vireo	FE/SE	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
B-CAVI	<i>Vireo cassinii</i>	Cassin's vireo	None/None	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	Added Oct 2016 because included in the kerata lookup table.
B-WAVI	<i>Vireo gilvus</i>	warbling vireo	None/None	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
B-HUVI	<i>Vireo huttoni</i>	Hutton's vireo	None/None	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
B-PLVI	<i>Vireo plumbeus</i>	plumbeous vireo	None/None	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
B-BHVI	<i>Vireo solitarius</i>	blue-headed vireo	None/None	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
B-GRVI	<i>Vireo vicinior</i>	gray vireo	None/SSC	Birds	BIRDS	Vireos	VIREOS	Vireonidae	VIREONIDAE	VIREOS	VIREONIDAE—VIREOS	
M-DEKI	<i>Vulpes macrotis arsipus</i>	desert kit fox	None/None	Mammals	MAMMALS	Canids	CANIDS	Canidae	CANIDAE	WOLVES & FOXES	CANIDAE—WOLVES & FOXES	
M-SIKF	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE/ST	Mammals	MAMMALS	Canids	CANIDS	Canidae	CANIDAE	WOLVES & FOXES	CANIDAE—WOLVES & FOXES	
M-REFO	<i>Vulpes vulpes</i>	red fox	None/None	* Mammals	MAMMALS	Canids	CANIDS	Canidae	CANIDAE	WOLVES & FOXES	CANIDAE—WOLVES & FOXES	
B-YHBL	<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	None/SSC	Birds	BIRDS	Blackbirds, Orioles & Allies	BLACKBIRDS, ORIOLES & ALLIES	Icteridae	ICTERIDAE	BLACKBIRDS	ICTERIDAE—BLACKBIRDS	
R-GNLI	<i>Xantusia hershawi</i>	granite night lizard	None/None	Reptiles	REPTILES	Lizards	LIZARDS	Xantusiidae	XANTUSIIDAE	NIGHT LIZARDS	XANTUSIIDAE—NIGHT LIZARDS	
R-INLI	<i>Xantusia riversiana</i>	island night lizard	FPO/None	Reptiles	REPTILES	Lizards	LIZARDS	Xantusiidae	XANTUSIIDAE	NIGHT LIZARDS	XANTUSIIDAE—NIGHT LIZARDS	
R-DNLI	<i>Xantusia vigilis</i>	desert night lizard	None/None	Reptiles	REPTILES	Lizards	LIZARDS	Xantusiidae	XANTUSIIDAE	NIGHT LIZARDS	XANTUSIIDAE—NIGHT LIZARDS	
A-AFCF	<i>Xenopus laevis</i>	African clawed frog	None/None	* Amphibians	AMPHIBIANS	Frogs	FROGS	Ranidae	RANIDAE	TRUE FROGS	RANIDAE—TRUE FROGS	
M-MOGS	<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	None/ST	Mammals	MAMMALS	Squirrels	SQUIRRELS	Sciuridae	SCIURIDAE	SQUIRRELS	SCIURIDAE—SQUIRRELS	Previously Spermophilus mohavensis
M-RTGS	<i>Xerospermophilus tereticaudus</i>	round-tailed ground squirrel	None/None	Mammals	MAMMALS	Squirrels	SQUIRRELS	Sciuridae	SCIURIDAE	SQUIRRELS	SCIURIDAE—SQUIRRELS	Previously Spermophilus tereticaudus
X	B-MODO	<i>Zenaidura macroura</i>	mourning dove	None/None	Birds	BIRDS	Pigeons & Doves	PIGEONS & DOVES	Columbidae	COLUMBIDAE	PIGEONS & DOVES	
	B-GCSP	<i>Zonotrichia atricapilla</i>	golden-crowned sparrow	None/None	Birds	BIRDS	New World Sparrows	NEW WORLD SPARROWS	Passerellidae	PASSERELLIDAE	NEW WORLD SPARROWS	
	B-WCSP	<i>Zonotrichia leucophrys</i>	white-crowned sparrow	None/None	Birds	BIRDS	New World Sparrows	NEW WORLD SPARROWS	Passerellidae	PASSERELLIDAE	NEW WORLD SPARROWS	



Attachment C

Special-Status Plant Species Potential to Occur in the Project Site
Region

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Allium jepsonii</i>	Jepson's onion	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Serpentinite, Volcanic/perennial bulbiferous herb/Apr–Aug/985–4,330	Not expected to occur. Chaparral and cismontane woodland habitat are present on the project site. The project site lacks serpentinite soils. There are two documented occurrences within 10 miles northwest of the project site (CNDDDB 2022).
<i>Arctostaphylos nissenana</i>	Nissenan manzanita	None/None/1B.2	Chaparral, Closed-cone coniferous forest; Rocky/perennial evergreen shrub/Feb–Mar/1,475–3,605	Moderate potential to occur. Chaparral habitat is present on the project site. There are three documented occurrences within 5 miles southeast of the project site (CNDDDB 2022).
<i>Calochortus clavatus</i> var. <i>avivus</i>	Pleasant Valley mariposa-lily	None/None/1B.2	Lower montane coniferous forest/perennial bulbiferous herb/May–July/1,000–5,905	Not expected to occur. No suitable vegetation present.
<i>Calystegia stebbinsii</i>	Stebbins' morning-glory	FE/SE/1B.1	Chaparral, Cismontane woodland; Gabbroic (sometimes), Seeps (sometimes)/perennial rhizomatous herb/Apr–July/605–3,575	Low potential to occur. Chaparral and cismontane woodland habitat are present on the project site; however gabbroic soils are not present. There are multiple documented occurrences within 10 miles west of the project site (CNDDDB 2022).
<i>Calystegia vanzuukiae</i>	Van Zuuk's morning-glory	None/None/1B.3	Chaparral, Cismontane woodland; Gabbroic, Serpentinite/perennial rhizomatous herb/May–Aug/1,640–3,870	Not expected to occur. The project site lacks gabbroic and serpentinite soils. There are no documented occurrences within 10 miles of the project site (CNDDDB 2022).
<i>Campylopodiella stenocarpa</i>	flagella-like atractylocarpus	None/None/2B.2	Cismontane woodland/moss//330–1,640	Not expected to occur. There are no documented occurrences within 10 miles of the project site (CNDDDB 2022).
<i>Carex cyrtostachya</i>	Sierra arching sedge	None/None/1B.2	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Riparian	Not expected to occur. The site is outside of the species' known elevation range.

			forest/perennial herb/May–Aug/2,000–4,460	
<i>Carex xerophila</i>	chaparral sedge	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Gabbroic, Serpentinite/perennial herb/Mar–June/1,440–2,525	Not expected to occur. The project site lacks gabbroic and serpentinite soils.
<i>Ceanothus roderickii</i>	Pine Hill ceanothus	FE/SR/1B.1	Chaparral, Cismontane woodland; Gabbroic (sometimes), Serpentinite (sometimes)/perennial evergreen shrub/Apr–June/805–3,575	Low potential to occur. Chaparral and cismontane woodland habitat are present on the project site; however, no gabbroic or serpentine soils present. There are multiple documented occurrences within 10 miles west of the project site and no occurrences within 5 miles (CNDDDB 2022).
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Gabbroic, Serpentinite/perennial bulbiferous herb/May–June/805–5,540	Moderate potential to occur. Chaparral and cismontane woodland habitat are present on the project site. The project site lacks gabbroic and serpentinite soils; however, this species can be found on non-ultramafic substrates. There is 1 documented occurrence 2 miles west of the project and multiple documented occurrences within 10 miles north, west, and south of the project (CNDDDB 2022).
<i>Fremontodendron decumbens</i>	Pine Hill flannelbush	FE/SR/1B.2	Chaparral, Cismontane woodland; Gabbroic (sometimes), Rocky, Serpentinite (sometimes)/perennial evergreen shrub/Apr–July/1,390–2,490	Low potential to occur. Chaparral and cismontane woodland habitat are present on the project site; however, no gabbroic or serpentine soils present. There are multiple documented occurrences within 10 miles west of the project (CNDDDB 2022).
<i>Galium californicum ssp. sierrae</i>	El Dorado bedstraw	FE/SR/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Gabbroic/perennial herb/May–June/330–1,915	Not expected to occur. The project site lacks gabbroic soils.

<i>Horkelia parryi</i>	Parry's horkelia	None/None/1B.2	Chaparral, Cismontane woodland/perennial herb/Apr–Sep/260–3,510	Moderate potential to occur. Chaparral and cismontane woodland habitat are present on the project site. The nearest documented occurrence is a historical record from 1923 within 5 miles north of the project site (CNDDDB 2022).
<i>Packera layneae</i>	Layne's ragwort	FT/SR/1B.2	Chaparral, Cismontane woodland/perennial herb/Apr–Aug/655–3,555	Not expected to occur. The project site lacks gabbroic or serpentine soils.
<i>Phacelia stebbinsii</i>	Stebbins' phacelia	None/None/1B.2	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps/annual herb/May–July/2,000–6,590	Not expected to occur. The site is outside of the species' known elevation range.
<i>Viburnum ellipticum</i>	oval-leaved viburnum	None/None/2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest/perennial deciduous shrub/May–June/705–4,590	Low potential to occur. Chaparral and cismontane woodland habitat are present on the project site. The nearest documented occurrence is a historical record from 1923 within 5 miles north of the project site (CNDDDB 2022).
<i>Wyethia reticulata</i>	El Dorado County mule ears	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest/perennial herb/Apr–Aug/605–2,065	Not expected to occur. The project site lacks stony red clay gabbroic soils.



Attachment D

Special-Status Wildlife Species Potential to Occur in the Project Site
Region

Scientific Name	Common Name	Status (Federal/ State)	Habitat	Potential to Occur
Amphibians				
Rana boylei pop. 5	Foothill yellow-legged frog – south Sierra DPS	FPT/ST	Rocky streams and rivers with open banks in forest, chaparral, and woodland	High potential to occur. Suitable habitat features for this species, including a freshwater stream and oak woodland, are present on the Project site. There are multiple CNDDDB occurrences within 10 miles of the site. Most records are considered locally extirpated however two records in 1994 and 2017 (7-8 miles from the site) are presumed extant (CNDDDB 2022).
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. Suitable habitat features with flowing freshwater are not present on the Project site. The nearest CNDDDB occurrence is 7 miles from the site, recorded in 1942 and presumed extant (CNDDDB 2022).
Birds				
Accipiter gentilis (nesting)	northern goshawk	None/SSC	Nests primarily in middle- and higher-elevation dense conifer forests; winters at lower elevations along coast, foothills, and northern deserts in riparian and pinyon–juniper woodland	Not expected to occur. The site is not within the expected geographic range of this species. Suitable dense conifer nesting habitat for this species is not present on the Project site. The nearest CNDDDB occurrence is 10 miles from the site, recorded in 1980 and presumed extant (CNDDDB 2022).
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Low potential to occur. Suitable habitat features for this species, including a freshwater stream and emergent vegetation, are present on the Project site but provide marginal nesting habitat. The nearest CNDDDB occurrence is 7 miles from the site, recorded in 2011 and presumed extant (CNDDDB 2022).
Riparia riparia (nesting)	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Not expected to occur. The site is not within the expected geographic range of this species. Suitable vertical nesting habitat for this species is not present on the Project site. The nearest CNDDDB occurrence is a

				historical record within the site, recorded in 1873 and presumed extant (CNDDDB 2022).
Strix nebulosa (nesting)	great gray owl	None/SE	Nests in old-growth red fir, mixed-conifer, lodgepole pine habitats near wet meadows used for foraging	Not expected to occur. The site is not within the expected geographic range of this species. No suitable high canopy forest nesting habitat present on the Project site. The nearest CNDDDB occurrence is 7 miles from the site, recorded in 2008 and presumed extant (CNDDDB 2022).
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Low potential to occur. Suitable grassland and woodland habitat for this species is present on the Project site. The nearest CNDDDB occurrence is 14 miles from the site, recorded in 2004 and presumed extant (CNDDDB 2022).
Pekania pennanti	fisher	None/SSC	Ranges widely in forested regions; uses heavy stands of mixed species of mature trees	Not expected to occur. The site is not within the expected geographic range of this species. No suitable old growth habitat is present on the Project site. The nearest CNDDDB occurrence is a large, unspecified polygon that includes project site, recorded in 1916 and presumed extant (CNDDDB 2022).
Reptiles				
Emys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Moderate potential to occur. Suitable habitat features for this species, including a flowing freshwater stream and adjacent uplands, are present on the Project site. There are multiple CNDDDB occurrences within 10 miles of the site; all are presumed extant, recorded from 1993 to 2016 (CNDDDB 2022).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley-foothill hardwood, conifer, riparian, pine-cypress, juniper, and annual grassland habitats	Not expected to occur. Suitable habitat types for this species are not present on the Project site. There are multiple CNDDDB occurrences within 10 miles of the site; all are presumed extant, recorded from 1995 to 2007 (CNDDDB 2022).

