# APPENDIX 4

# Biological Resources Assessment & Aquatic Resources Delineation Technical Report

*Well #8 and Potable Water Distribution Pipeline Project*

*Frazier Park Public Utilities District, Kern County, California*

June 27, 2026

# Contents



# Appendices

# 1 Introduction

The Frazier Park Public Utilities District (FPPUD or District) is proposing to implement a water infrastructure project with two components for which the District is seeking funding from the State Water Resources Control Board's (SWRCB) Division of Drinking Water (DDW). The first project component is a new potable water well, proposed District Well #8. The second project component is the replacement of approximately 18,300 feet of District potable water distribution pipelines in three of the District's service areas, Summit Area, Lower Summit Area, and Texas Trail.

On behalf of Tom Dodson & Associates, HDR, Inc. (HDR) has prepared this Biological Resources Assessment (BRA) and Aquatic Resources Delineation (ARD) technical report for the District's proposed Well #8 and Potable Water Distribution Pipeline Project (Project). The proposed Project would update and improve critical water storage and distribution infrastructure for the community of Frazier Park, located in unincorporated Kern County, California. Since the proposed Project would involve state (and possibly federal) grant funds, this BRA-ARD technical report was prepared in accordance with the standards required by the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) review processes.

The BRA fieldwork was conducted by HDR biologist Daniel Smith in June of 2026. The purpose of the biological resources field surveys was to address potential effects of the Project on designated Critical Habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA), as well as any species otherwise designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS). The Project area was assessed for sensitive species known to occur locally. Attention was focused on those state and/or federally listed as threatened or endangered species and California Fully Protected species that have been documented in the vicinity of the Project area, whose habitat requirements are present within or adjacent to the proposed Project footprint. Results of the habitat assessment are intended to provide sufficient baseline information to determine if the Project is likely to result in any adverse effects on sensitive biological resources and to identify potential mitigation measures to offset those effects.

In addition to the biological resources field survey, the Project site was assessed for the presence of state and/or federal jurisdictional aquatic resources potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and the Porter Cologne Water Quality Control Act (Porter-Cologne), and the CDFW under Section 1602 of the California Fish and Game Code (FGC), respectively.

## 1.1 Project Description

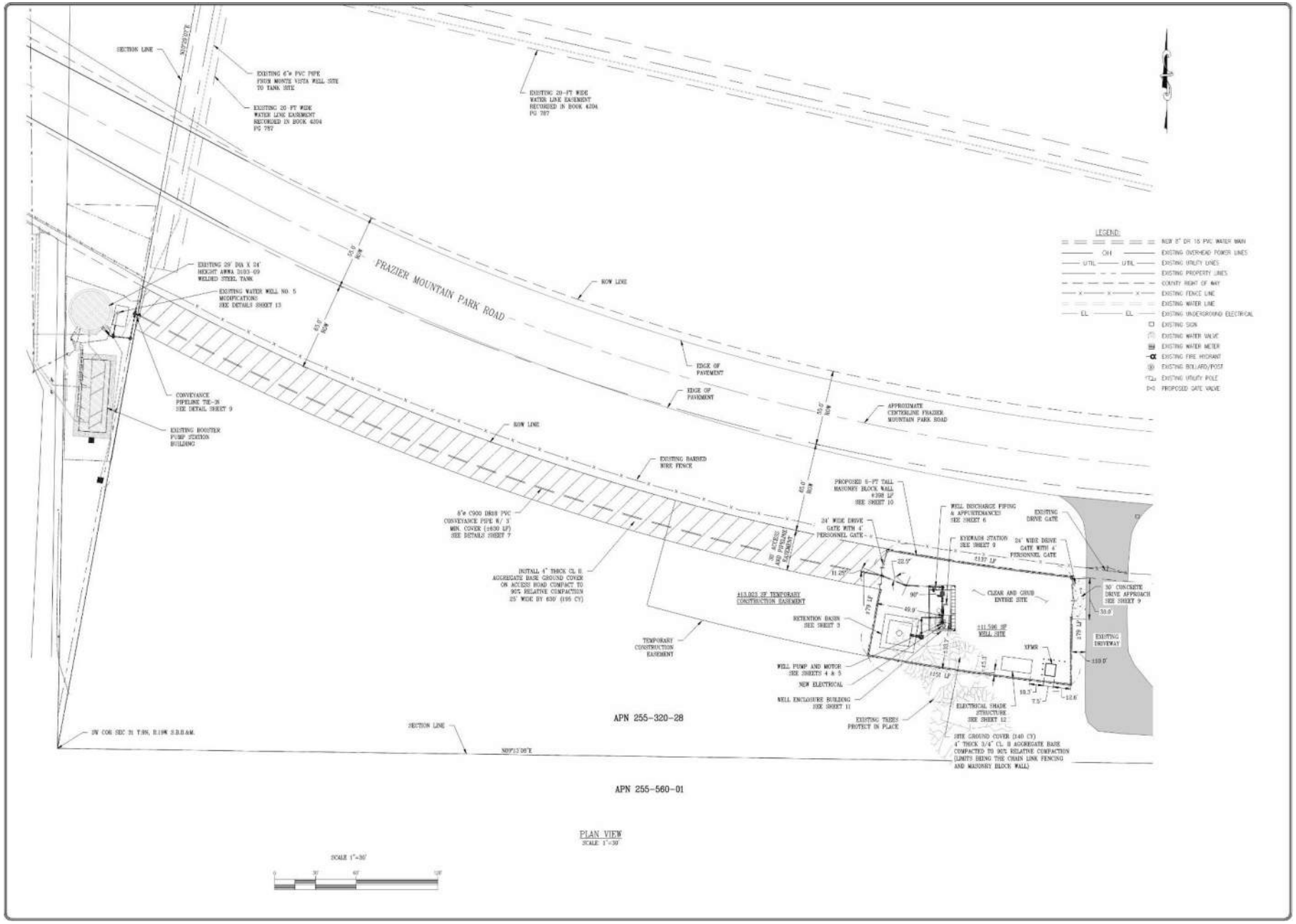
### 1.1.1 New Well #8 Facilities

The District proposes to construct the new Well #8 facilities within an 11,596 square foot (sf) site (approximately 1/4 acre) located just south of Frazier Mountain Park Road, a little west of this road's intersection with Mt. Pinos Way. (Figure 1, Page 3). A well drilling rig (Direct Rotary Rig) will be brought onto the site to drill the well, which will require about two to three weeks (14-21 days) to complete. Once drilling is completed, equipment will be brought onsite to complete the well for production. An

existing driveway is located on the east side of the site and the District will install a separate 24-foot access driveway with entry gates (vehicle and personnel) to the new Well #8 site. A 6-foot-high masonry block wall will be installed around the site, with entry gates on the west and east. West of the site an area of about 13,000 sf will be set aside with a temporary construction easement for equipment staging and laydown. Additional facilities to be installed within the boundary of the well site include the following: electrical, well pump and motor, retention basin, well enclosure building, gravel ground cover, well discharge piping, eye wash stand, and other well support equipment (Figure 1, Page 3).

West of the enclosed well site, a new graded and compacted road (25 feet wide) will be installed to connect the well to the water storage tank located at the existing Well #5 site. Well #5 is located about 630 feet west of proposed Well #8. The existing storage tank and a pump station are located at this site as shown on Page 3, Figure 1. Within the proposed right-of-way (ROW), an 8-inch PVC pipeline will connect the two well sites, and a 25-foot-wide graded/compacted connector road will be installed within a 30-foot easement owned by the District (Figure 1, Page 3).

Once the above water infrastructure is installed, Well #8 can be placed in operation and based on preliminary testing it is forecast to yield about 500 gallons per minute (gpm) of flow.




Source: Dee Jaspar & Associates, Inc. – Civil Engineers

**Figure 1. New Well #8 Site Plan**

### 1.1.2 Replacement Pipelines

The District's potable water distribution system is older, has been deteriorating, and in some areas no longer meets current fire flow requirements. To address these current limitations, the District has embarked on a pipeline replacement program for specific areas within the District's service area. Figures 4c through 4f on Pages 9 through 12 show the locations where 8-inch diameter PVC water mains will be installed to replace existing water lines. Most of the 18,300 lineal feet of 8-inch pipeline (of the District's total of approximately 100,000 lineal feet) within these two areas will be installed within existing road ROW, with the Elm Tank to McGhee Tank alignment located on undisturbed and lightly disturbed land immediately adjacent to developed areas (Figure 4d, Page 10).

The pipelines will be installed using standard trenching methods. It is estimated that overall an average of 200 lineal feet of pipeline can be installed per day. Average depth of trenches is estimated to be 4 feet to 6 feet in depth. Two crews are assumed to be installing the replacement pipe at the same time and installation will occur over a period of 45 to 60 working days. Concurrent with pipeline installation, the District will install the following support equipment: gate valves, fire hydrants, pressure reducing stations, and blow-off assemblies.

Once funding is acquired, the District will issue requests for proposals and award contracts to the winning bidders to install the new District potable water infrastructure summarized above.

## 1.2 Project Location

The Project area is generally located approximately 40 miles northwest of Santa Clarita and 40 miles south of Bakersfield, just north of the Kern County/Ventura County line, in the unincorporated community of Frazier Park, Kern County, California (Figure 2, Page 5). The Project area is depicted on the *Frazier Mountain* U. S. Geological Survey's (USGS) 7.5-Minute Series Quadrangle map, situated within the following Sections, Township, and Ranges (San Bernardino Base Meridian) (Figure 3, Page 6):

- Sections 25, 26, 35, and 36 of Township 9 North, Range 20 West, and Section 6 of Township 8 North, Range 19 West (replacement pipelines);
- Section 31 of Township 9 North, Range 19 West (new Well #8 site)

Specifically, the Project area is located approximately 3.2 miles west of the Frazier Mountain Park Road exit off Interstate 5 (I-5) at the easternmost end of the Project area (proposed new Well #8 site) and extends westward through the community of Frazier Park for approximately 1.2 miles (Figures 3-4a, Pages 6-7). The new Well #8 facilities will occupy an area of about 1/4 acre located just south of Frazier Mountain Park Road, a little west of this road's intersection with Mt. Pinos Way. Figures 4a and 4b show the location of proposed Well #8 and the pipeline alignment that connects Well #8 to the water storage tank located at Well #5. The whole of proposed Well #8 infrastructure improvements are shown on Figure 1, Page 3. Figures 4a and 4c through 4f on Pages 7 and 9 through 12 show the location of the proposed pipeline alignments (18,300 linear feet (LF)) that will be replaced if this project is approved.

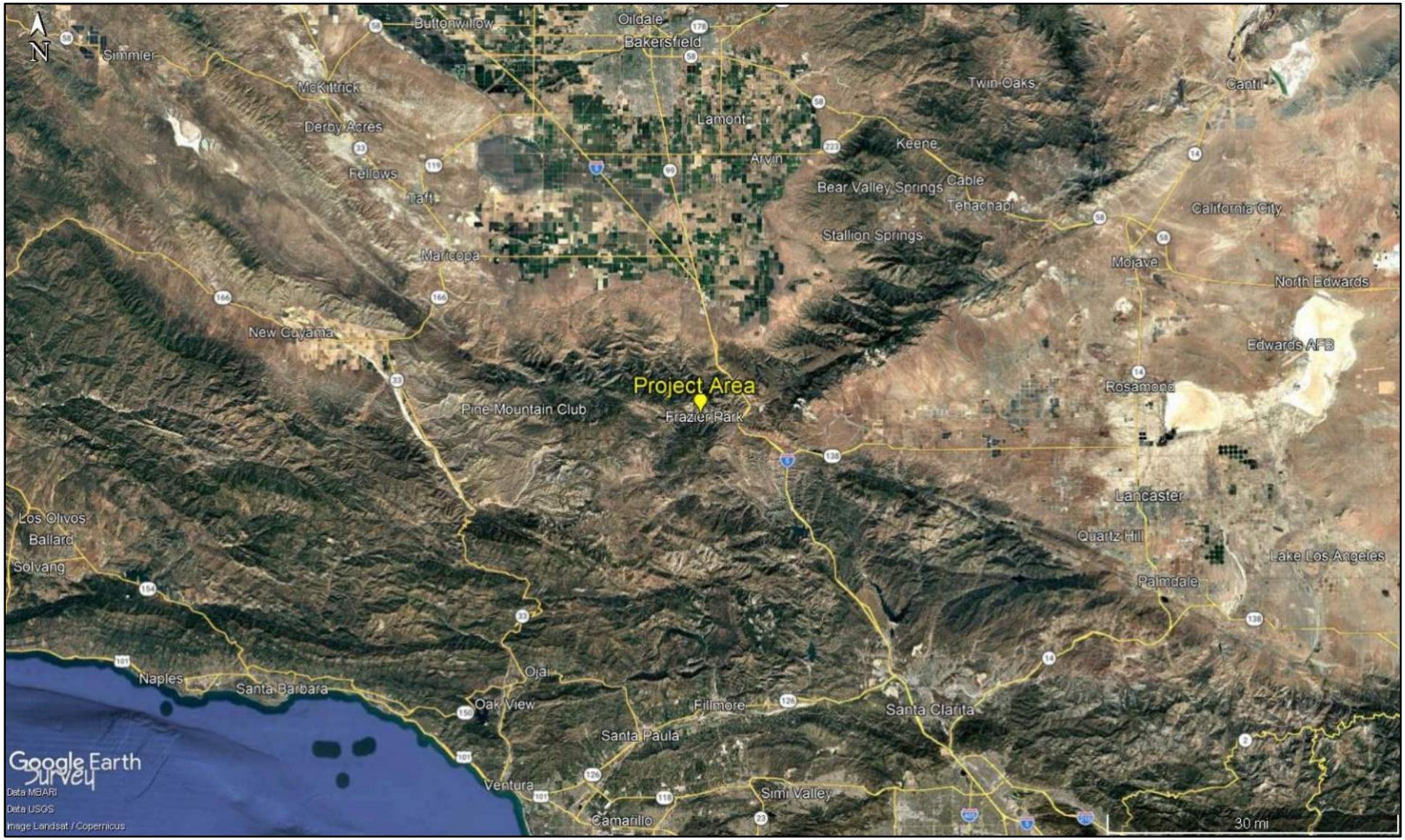



**Figure 2. Regional Vicinity Map**

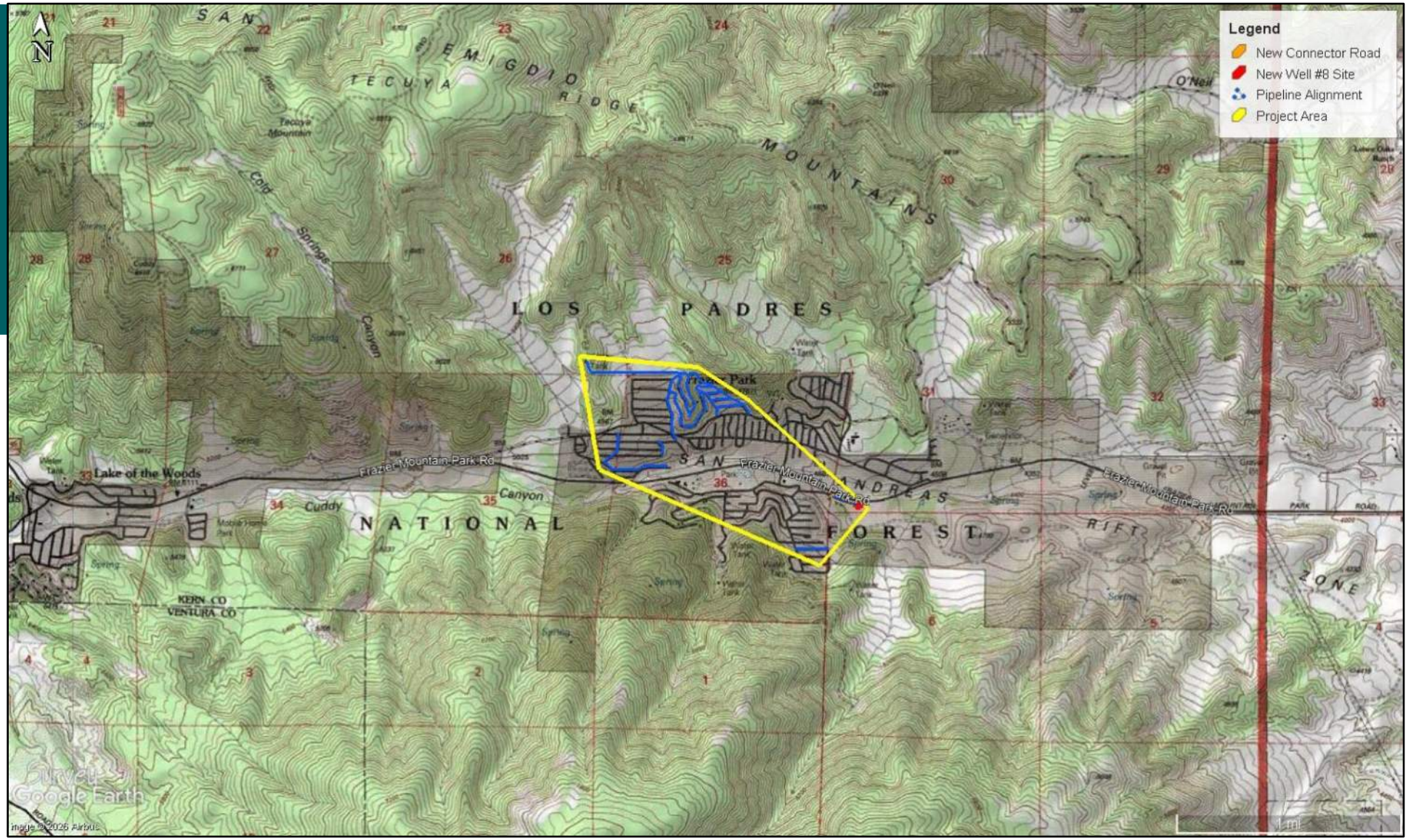



**Figure 3. Topographic Map of Project Area**


**Figure 4a. Aerial Photograph of Project Area**


**Figure 4b. Aerial Photograph of New Well #8 Site & Connector Road with Conveyance Pipeline Alignment**


**Figure 4c. Aerial Photograph of Replacement Pipeline Alignments within the Neighborhood North of Mt. Pinos Way**


**Figure 4d. Aerial Photograph of Replacement Pipeline Alignment from Elm Storage Tank to McGhee Storage Tank**


**Figure 4e. Aerial Photograph of Replacement Pipeline Alignments within Mead Trail, Grant Trail, Logan Trail, & Julian Trail**


**Figure 4f. Aerial Photograph of Replacement Pipeline Alignment within Texas Trail**

## 1.3 Environmental Setting

The Project area is situated in the geographically based ecological classification known as the Northern Transverse Range – Level IV ecoregion, of the Southern California Mountains – Level III ecoregion (Griffith et al. 2016). The goal of regional ecological classifications is to reduce variability based on spatial covariance in climate, geology, topography, climax vegetation, hydrology, and soils. The Southern California Mountains have a Mediterranean climate of hot dry summers and moist cool winters. Although Mediterranean types of vegetation such as chaparral and oak woodlands predominate in this region, the elevations are considerably higher, the summers are slightly cooler, and precipitation amounts are greater than in adjacent ecoregions, resulting in denser vegetation and some large areas of coniferous woodlands. In parts of the Transverse Range, a general slope effect causes distinct ecological differences. The south-facing slopes typically have higher precipitation (30-40 inches) compared to many of the north slopes of the range (15-20 inches), but high evaporation rates on the south contribute to a cover of chaparral. On the north side of parts of the ecoregion, lower evaporation, lower annual temperatures, and slower snow melt allows for a coniferous forest that blends into desert montane habitats as it approaches the Mojave Desert ecoregion boundary (Griffith et al. 2016).

The Project area is within the Frazier Park area of unincorporated Kern County, which is situated within Cuddy Canyon in the San Emigdio Mountains (Transverse Range), between Frazier Mountain to the south and the Tecuya Mountain to the north. The terrain of the Project area ranges from relatively flat to steeply sloped, surrounded by steep canyon slopes. Elevations within the Project area range from approximately from 4,555 feet above mean sea level (amsl) at the proposed new Well #8 site, to 5,380 feet amsl where the proposed replacement pipeline terminates at the existing McGhee Storage Tank.

The Project area is within a hot dry-summer Mediterranean climate (Csa), subject to both seasonal and annual variations in temperature and precipitation. Average annual maximum temperatures within this region peak at 86.8 degrees Fahrenheit (° F) in August and fall to an average annual minimum temperature of 34.4° F in February. Average annual precipitation is greatest from November through April and reaches a peak in February (2.69 inches). Precipitation is lowest in the month of July (0.04 inches). Annual total precipitation averages 12.76 inches.

Hydrologically, the Project area is situated within an undefined Hydrologic Sub-Area (HSA 556.30), which comprises an approximately 206,706-acre drainage area within the larger Middle Kern-Upper Tehachapi-Grapevine Watershed (HUC 18030012). The Project Area is within Cuddy Canyon, along Cuddy Creek, which is an ephemeral stream that flows generally west to east through the Project Area.

According to the U.S. Department of Agriculture, Natural Resources Conservation Service's (USDA-NRCS) Web Soil Survey, the Project area is mapped within the following soil types:

- *Orthents-Fluvents complex, 0 to 15 percent slopes*: Orthents consist of coarse sandy loam, sandy loam, and gravelly sandy loam horizons comprised of alluvium. This soil type is well drained, with low runoff, and has not been identified as a hydric soil. Fluvents consist of sandy loam, stratified gravelly sand to sandy loam, and stratified gravelly sand to gravelly sandy loam horizons comprised of alluvium. This soil type is also well drained, with low runoff, and has not been identified as a hydric soil.
- *Lodo-Modjeska-Botella families association, 10 to 70 percent slopes*: Lodo family soils consist of sandy loam and gravelly sandy loam horizons comprised of residuum weathered from

sandstone over unweathered bedrock. This soil type is somewhat excessively drained, with moderate runoff, and has not been identified as a hydric soil. Modjeska family soils consist of sandy loam and very gravelly sandy loam horizons comprised of residuum weathered from granodiorite over unweathered bedrock. This soil type is well drained, with moderate runoff, and has not been identified as a hydric soil. Botella family soils consist of sandy loam and gravelly sandy clay loam horizons comprised of residuum weathered from sandstone over unweathered bedrock. This soil type is also well drained, with moderate runoff, and has not been identified as a hydric soil.

The Project area consists of a mix of urban and semi-rural residential landscapes surrounded by open space. The proposed Project footprint is almost entirely within existing disturbed environments consisting of existing roads, District facilities, and previously cleared/graded parcels that no longer support any native habitats.

# 2 Assessment Methodology

## 2.1 Biological Resources Assessment

Data regarding biological resources in the vicinity of the Project site were obtained through literature review, desktop evaluation, and field investigation. Prior to performing the field surveys, available databases, and documentation relevant to the Project area were reviewed for documented occurrences of sensitive species that could potentially occur in the vicinity of the Project site. The USFWS Information for Planning and Consultation System (IPaC) and the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data in the *Frazier Mountain* and *Cuddy Valley* USGS 7.5-Minute Series Quadrangles. The Project area was assessed for its potential to support special status species known or expected to occur in the vicinity of the Project site (within approximately 3 miles). Therefore, the records search was conducted for the two USGS quads that overlap within a 3-mile radius of the Project site. These databases contain records of reported occurrences of state and/or federally listed species or otherwise sensitive species and habitats that may occur within the Project vicinity. Other available technical information on the biological resources of the area was also reviewed including previous surveys and recent findings.

### 2.1.1 Biological Resources Assessment Field Survey

HDR biologist Daniel Smith conducted a biological resources assessment of the Project area on June 3, 2026. Wildlife species were detected during field surveys by sight, calls, tracks, scat, and/or other sign. In addition to the species observed, expected wildlife usage of the site was determined based on known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species survey was to identify potential habitat for special status wildlife that may occur in the Project vicinity.

***Floristic Botanical Field Survey***

The BRA field survey also included a floristic botanical field survey of the Project site conducted by HDR biologist Daniel Smith. In accordance with the CDFW's March 20, 2018, "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities," the survey was conducted during the appropriate time of year, when the target species were both evident and identifiable. The target species included those special status plant species identified in the CNDDB and CNPSEI database searches for which suitable habitat is present within the proposed Project footprint. Target species included:

- Abrams' oxytheca (*Acanthoscyphus parishii* var. *abramsii*)
- Mt. Pinos onion (*Allium howellii* var. *clokeyi*)
- Lemmon's jewelflower (*Caulanthus lemmonii*)
- Mt. Pinos larkspur (*Delphinium parryi* ssp. *purpureum*)
- Fort Tejon woolly sunflower (*Eriophyllum lanatum* var. *hallii*)
- Pine green-gentian (*Frasera neglecta*)
- Inland gilia (*Gilia interior*)

- Cuyama gilia (*Gilia latiflora* ssp. *cuyamensis*)
- Pine gilia (*Gilia leptantha* ssp. *pinetorum*)
- San Gabriel Mountains sunflower (*Hulsea vestita* ssp. *gabrielensis*)
- Spring lessingia (*Lessingia tenuis*)
- Tehachapi monardella (*Monardella linoides* ssp. *oblonga*)
- Robbins' nemacladus (*Nemacladus secundiflorus* var. *robbinsii*)
- Transverse range phacelia (*Phacelia exilis*)
- Grey-leaved violet (*Viola pinetorum* ssp. *grisea*)

The floristic botanical field survey was conducted on June 3, 2026. Survey transect lines were spaced 5 meters (approximately 16 feet) apart to provide 100 percent visual coverage of the entire ground surface wherever suitable habitat was present within the proposed Project footprint (i.e., the Elm Tank to McGhee Tank replacement pipeline alignment). Appendix C provides a complete list of all plant species observed within the Project site during survey.

## 2.2 Aquatic Resources Delineation

HDR also evaluated the proposed Project footprint for the presence of riverine/riparian/wetland habitat and jurisdictional aquatic resources, i.e., Waters of the U.S. (WOTUS), as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW. Prior to the field visit, aerial photographs of the Project area were viewed and compared with the surrounding USGS 7.5-Minute Topographic Quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Project "My Waters" Google Earth Pro data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) "Web Soil Survey" was reviewed for soil types found within the Project Area to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Upstream and downstream connectivity of waterways (if present) were reviewed on Google Earth Pro aerial photographs and topographic maps to determine jurisdictional status. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Water Mark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents listed below:

- *USACE – Corps of Engineers Wetlands Delineation Manual, Wetlands Research Program Technical Report Y-87-1 (on-line edition), January 1987 - Final Report.*
- *USACE – Jurisdictional Determination Form Instructional Guidebook (JD Form Guidebook), May 30, 2007.*
- *USACE – A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (A Delineation Manual), August 2008.*
- *USACE – Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), September 2008.*

- *USACE – Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (Minimum Standards), January 2016.*

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: hydrophytic *vegetation*, hydric *soils*, and wetland *hydrology*.

► *Hydrophytic vegetation*: Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2018 National Wetland Plant Lists for the Arid West Region (USACE 2018). Each species on the lists is rated with a wetland indicator category, as shown in Table 1. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

**Table 1. Wetland Indicator Vegetation Categories**

| Category | Probability |
|---|---|
| Obligate Wetland (OBL) | Almost always occur in wetlands (estimated probability >99%) |
| Facultative Wetland (FACW) | Usually occur in wetlands (estimated probability 67 to 99%) |
| Facultative (FAC) | Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%) |
| Facultative Upland (FACU) | Usually occur in non-wetlands (estimated probability 67 to 99%) |
| Obligate Upland (UPL) | Almost always occur in non-wetlands (estimated probability >99%) |

► *Hydric Soil*: Soil maps from the USDA-NRCS Web Soil Survey (USDA 2023) were reviewed for soil types found within the Project Area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are several indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Munsell 2000). Soil pits are dug (when necessary) to an approximate depth of 16-20 inches to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

- *Wetland Hydrology*: The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987 and USACE 2008)

Evaluation of CDFW jurisdiction followed guidance in the FGC and "A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607 California Fish and Game Code" (CDFG 1994). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent of associated riparian vegetation.

# 3 Results

## 3.1 Existing Biological and Physical Conditions

As previously discussed, the proposed Project footprint is almost entirely within existing disturbed environments consisting of existing roads, District facilities, and previously cleared/graded parcels that no longer support any native habitats. However, the proposed replacement pipeline within the Elm Tank to McGhee Tank alignment is located on undisturbed and lightly disturbed land immediately adjacent to developed areas (Figure 4d, Page 10). Existing disturbances within the Project area include residential and commercial development, paved and unpaved roads, vehicular and pedestrian traffic, District maintenance operations at existing facilities, and vegetation removal.

### 3.1.1 Habitat

The proposed Well #8 site consists mostly of bare ground, with some sparse ruderal vegetation consisting of nonnative grasses (*Avena sp.*, *Bromus* spp., and *Hordeum murinum*), coastal heron's bill (*Erodium cicutarium*), and short podded mustard (*Hirschfeldia incana*) (Appendix B: Site Photos). There are several large oak trees (*Quercus* sp.) in the vicinity of the Well #8 site; however, the Project will avoid all existing trees, and no trees will be removed, disturbed, or harmed by construction activities.

Most of the proposed replacement pipeline alignments are within existing roads surrounded by residential development. The proposed replacement pipeline within the Elm Tank to McGhee Tank alignment is located partially within a previously graded District ROW and partially within undisturbed habitat immediately adjacent residential development (Figure 4d, Page 10). Plant communities present within and adjacent the proposed Elm Tank to McGhee Tank replacement pipeline alignment include *Artemisia tridentata* Shrubland Alliance (big sagebrush), *Eriodictyon* spp. Shrubland Alliance (yerba santa scrub), *Arctostaphylos glauca* Shrubland Alliance (bigberry manzanita chaparral), and *Pinus monophyla* Woodland Alliance (singleleaf pinyon woodland). A complete list of plant species identified within the Project area during the BRA-ARD field survey is included in Appendix C.

### 3.1.2 Wildlife

The proposed Project footprint is almost entirely within existing roads and District facilities. During the field surveys, special attention was focused on those Project components that are within or adjacent vacant parcels and other undeveloped areas (i.e., Elm Tank to McGhee Tank replacement pipeline alignment), where special status species are more likely to occur.

***Amphibians and Reptiles***

The only herp species observed or otherwise detected within the Project area during the reconnaissance level survey were western side-blotched lizard (*Uta stansburiana elegans*). Other herp species expected to occur within or adjacent to the Elm Tank to McGhee Tank replacement pipeline alignment include western whiptail (*Aspidoscelis tigris*), northern Pacific rattlesnake (*Crotalus oreganus*), coast horned lizard (*Phrynosoma blainvillii*), gopher snake (*Pituophis catenifer*), and western fence lizard (*Sceloporus occidentalis*).

***Birds***

Birds were the most observed wildlife group within the Project area and species observed or otherwise detected during the field survey included:

- California Scrub-jay (*Aphelocoma californica*)
- Anna's Hummingbird (*Calypte anna*)
- Common Raven (*Corvus corax*)
- Steller's Jay (*Cyanocitta stelleri*)
- Nuttall's Woodpecker (*Dryobates nuttallii*)
- Brewer's Blackbird (*Euphagus cyanocephalus*)
- Dark-eyed Junco (*Junco hyemalis*)
- Acorn Woodpecker (*Melanerpes formicivorus*)
- California Towhee (*Melozone crissalis*)
- House Sparrow (*Passer domesticus*)
- Black-headed Grosbeak (*Pheucticus melanocephalus*)
- Spotted Towhee (*Pipilo maculatus*)
- Western Bluebird (*Sialia mexicana*)
- White-breasted Nuthatch (*Sitta carolinensis*)
- Lesser Goldfinch (*Spinus psaltria*)
- European Starling (*Sturnus vulgaris*)
- Violet-green Swallow (*Tachycineta thalassina*)
- American Robin (*Turdus migratorius*)

***Mammals***

No mammal species were observed or otherwise detected within the Project area during the field survey. Mammal species expected to occur within or adjacent the Project site include coyote (*Canis latrans*), Merriam's chipmunk (*Neotamias merriami*), dusky-footed woodrat (*Neotoma fuscipes*), mule deer (*Odocoileus hemionus*), California ground squirrel (*Otospermophilus beecheyi*), western gray squirrel (*Sciurus griseus*), and desert cottontail (*Sylvilagus audubonii*), and American black bear (*Ursus americanus*). It should be noted that many mammal species expected to occur in the Project area are nocturnal and not likely to be observed during daytime field surveys. Additionally, no focused small mammal trapping surveys were conducted as part of the BRA field survey effort.

## 3.2 Special Status Species and Habitats

According to the CNDDB and CNPSEI, 49 special status species (26 plant species, 23 animal species) and three sensitive habitats have been documented in the *Frazier Mountain* and *Cuddy Valley* USGS 7.5-Minute Series Quadrangles. This list of sensitive species and habitats includes any state and/or federally listed or proposed for listing as threatened or endangered species, California Fully Protected

species, CDFW designated Species of Special Concern, and otherwise Special Animals documented in the *Frazier Mountain* and *Cuddy Valley* quads. “Special Animals” is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species.” CDFW considers the taxa on this list to be those of greatest conservation need.

The USFWS IPaC search identified four additional federally listed species as potentially occurring in the regional vicinity of the Project site. A complete list of all special status species identified by the IPaC, CNDDB, and CNPSEI databases as potentially occurring in the vicinity of the Project site is provided in Appendix E. Of the 53 special status species identified by the USFWS IPaC, CNDDB, and CNPSEI queries, seven are state and/or federally listed or proposed for listing as threatened or endangered species, one is a candidate species for listing under CESA, and one is a CDFW “Fully Protected” species. Table 2 (below) provides a list of all state and/or federally listed or proposed threatened and endangered species, as well as state candidate and fully protected species identified by the IPaC, CNDDB, and CNPSEI queries, where they are found (locally [within 1 mile], adjacent to the Project site, or within the Project site), if suitable habitat for that species exists within the Project site and whether the Project may affect that species.

**Table 2. Listed Species Identified in the USFWS IPaC, CNDDB, and/or CNPSEI Species Lists**

| Scientific Name | Common Name | Status | Found Locally | Found Adjacent | Found Within | Suitable Habitat | Project Affect |
|---|---|---|---|---|---|---|---|
| **Insects:** | | | | | | | |
| *Bombus crotchii* | Crotch's bumble bee | SCE | Yes | No | No | Yes | No effect (avoidance) |
| *Danaus plexippus* | Monarch butterfly | FPT | Yes | No | No | Adult foraging | No effect |
| **Amphibians:** | | | | | | | |
| *Batrachoseps stebbinsi* | Tehachapi slender salamander | ST | No | No | No | None | No effect |
| **Birds:** | | | | | | | |
| *Empidonax traillii extimus* | Southwestern willow flycatcher | FE/SE | No | No | No | None | No effect |
| *Gymnogyps californianus* | California condor | FE/SE | No | No | No | None | No effect |
| **Reptiles:** | | | | | | | |
| *Actinemys marmorata* | Northwestern pond turtle | FPT | No | No | No | None | No effect |
| *Charina umbratica* | Southern rubber boa | ST | No | No | No | None | No effect |
| **Mammals:** | | | | | | | |
| *Vulpes macrotis mutica* | San Joaquin kit fox | FE/ST | No | No | No | None | No effect |

**Notes:**

| | |
|---|---|
| FT = Federally Threatened | ST = State Threatened |
| FE = Federally Endangered | SE = State Endangered |
| FPT = Federally Proposed Threatened | SCT = State Candidate Threatened |
| FPE = Federally Proposed Endangered | SCE = State Candidate Endangered |
| FD = Federally Delisted | SFP = State Fully Protected |

### 3.2.1 Special Status Species

The Project area is outside the current and historic range of the San Joaquin kit fox. Additionally, there is no habitat suitable for Tehachapi slender salamander, southwestern willow flycatcher, northwestern pond turtle, or southern rubber boa within the Project area. Furthermore, there is no suitable nesting habitat for California condor within the Project area, which is subject to a high degree of human disturbance. Therefore, San Joaquin kit fox, Tehachapi slender salamander, southwestern willow flycatcher, northwestern pond turtle, southern rubber boa, and California condor are not expected to occur within the Project area, and the Project will have no effect on these species.

Although the coast horned lizard (*Phrynosoma blainvillii*) is not state or federally listed or proposed for listing as threatened or endangered species, the coast horned lizard is considered a "Species of Special Concern" (SSC) by the CDFW, and there is a potential for this species to occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment. Therefore coast horned lizard will be included in the discussion below.

In addition to the discussion below, an analysis of the likelihood for occurrence of all special status species identified by the USFWS IPaC, CNDDB, and CNPS queries is provided in Appendix A. This analysis considers species' range as well as documentation within the vicinity of the Project site and includes the habitat requirements for each species and the potential for their occurrence on site, based on required habitat elements and range relative to the current site conditions.

***Crotch's Bumble Bee – Candidate for Listing as Endangered (State)***

The Crotch's bumble bee is a candidate species for listing as endangered under the CESA. This species occurs almost exclusively in California and has been described as having historically occupied grasslands and shrublands in southern to central California, but primarily in the Central Valley. Crotch's bumble bee is classified as a short-tongued bumble bee species, and preferred forage plants may include *Antirrhinum, Asclepias, Clarkia, Chaenactis, Dendromecon, Eschscholzia, Eriogonum, Lupinus, Medicago, Phacelia,* and *Salvia* (Williams et al. 2014; CNDDB 2026). It is assumed that suitable habitat may contain any of the following: 1) areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows and forage plants; 2) potential nest habitat (late February through late October) containing underground abandoned small mammal burrows, perennial bunch grasses and/or thatched annual grasses, brush piles, old bird nests, dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2015); and 3) overwintering sites (November through early February) utilized by mated queens in self-excavated hibernacula potentially in soft, disturbed soil (Goulson 2010), sandy, well-drained, or loose soils, under leaf litter or other debris (Williams et al. 2014) with ground cover requisites such as barren areas, tree litter, bare-patches within short grass in areas lacking dense vegetation.

> *Findings*: According to the CNDDB, Crotch's bumble bee was documented in the vicinity of Frazier Park in 1980, and there are several more recent observations (2023, 2025) within 10 miles of the Project site. According to iNaturalist, the nearest documented Crotch's bumble

bee occurrence (2026) is approximately 3 miles southwest of the Project site. There are several potential Crotch's bumble bee forage plant species present at low cover within and adjacent the proposed Elm Tank to McGhee Tank replacement pipeline alignment, including at least one preferred genus (*Eriogonum* spp.). Therefore, this species has a moderate potential to occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment. No other areas within the Project site are potentially suitable for Crotch's bumble bee and this species is not expected to occur elsewhere within the Project site.

***Monarch Butterfly – Proposed Threatened (Federal)***

The USFWS has proposed to list the monarch butterfly as threatened under the federal ESA. The adult monarch butterfly is characterized by bright orange wings surrounded by a black border with white spots and covered with black veins (USFWS 2024). During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.), and larvae emerge after two to five days. Monarch butterflies have four life stages: egg, larva, pupa, and adult. Larvae emerge from eggs after two to five days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days while feeding on milkweed, then pupate into chrysalis before eclosing 6 to 14 days later as an adult butterfly. Multiple generations of adult butterflies are produced during the breeding season, typically living two to five weeks, while overwintering migratory adults live six to nine months (USFWS 2024).

There are two North American migratory populations; the migratory population located east of the Rocky Mountains overwinters in Mexico and the migratory population located west of the Rocky Mountains primarily overwinters in California and Baja California, Mexico (USFWS 2024). The location and structure of the overwintering sites along the coast of California provide the specific microclimate needed for survival in the western overwintering areas. There are approximately 400 groves that have been occupied, but only a portion of these sites are occupied in any given year. The overwintering sites, typically close to the coast, span approximately 1.225 kilometers (0.761 miles) of coastline. These groves are populated by a variety of tree species, including blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*) all of which act as roost trees (USFWS 2024). Suitable overwintering groves provide temperatures above freezing but not too warm, low light intensity, solar radiation, high water vapor pressure, wind speeds lower than 2 meters per second, access to fresh water, nectar sources, intact canopy, and an open interior.

*Findings*: According to iNaturalist, the nearest documented monarch butterfly breeding occurrence (2025) is just west of the proposed replacement pipeline alignment within Mead Trail. However, the milkweed (*Asclepias* spp.) host plants required for breeding and larval development are absent from the Project site. Furthermore, the nearest documented winter roost site for this species is approximately 40 miles southwest of the Project site, and there is no suitable overwintering monarch habitat within the Project area. Therefore, monarch butterflies are not expected to occur on site.

***Coast Horned Lizard – Species of Special Concern (State)***

The coast horned lizard, or Blainville's horned lizard, is a flat-bodied lizard with a wide oval-shaped body (2.5 to 4.5 inches in length from snout to vent), scattered enlarged pointed scales on the upper body and tail, and a large crown of horns or spines on the head. This species occurs in the Sierra Nevada foothills from Butte County to Kern County, and throughout the central and southern California coast. Its elevational range extends up to 1200 m (4,000 feet) in the Sierra Nevada foothills and up to 1800 m (6,000 feet) in the mountains of southern California. Coast horned lizards are found in open

country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Morey 2000). This species relies on camouflage for protection and often hesitates to move at the approach of a predator. Horned lizards often bask in the early morning on the ground or on elevated objects such as low boulders or rocks. Predators and extreme heat are avoided by horned lizards by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed into the soil under surface objects such as logs or rocks, in mammal burrows, or in crevices (Morey 2000). Coast horned lizards primarily feed on harvester ants in the genera *Pogonomyrmex* and *Veromessor* but will also consume other insects. They forage on the ground in open areas, usually between shrubs and often near ant nests (Morey 2000). Primary threats to this species resulting in its decline include habitat destruction from urban and agricultural development, and the spread of nonnative, invasive ant species, which displace the native ant food source.

> *Findings*: According to the CNDDB and personal observations, coast horned lizards have been documented in the immediate vicinity of the Project as recently as 2024. There is suitable habitat for this species within and adjacent the proposed Elm Tank to McGhee Tank replacement pipeline alignment. Therefore, this species has a high potential to occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment. No other areas within the Project site are potentially suitable for coast horned lizards and this species is not expected to occur elsewhere within the Project site.

### 3.2.2 Special Status Habitats

The Project area is not within or adjacent any USFWS designated Critical Habitat or other sensitive habitats. The nearest Critical Habitat unit is approximately 5 miles north of the Project area. This Critical Habitat unit is part of the Tejon Ranch unit of USFWS designated Critical Habitat for the federally listed as endangered California condor. However, no portion of the Project site is within or adjacent this Critical Habitat unit, or any other Critical Habitat.

The CNDDB query also identified the following three sensitive habitats as potentially occurring in the Project vicinity:

- Valley Needlegrass Grassland
- Valley Oak Woodland
- Wildflower Field

None of these three sensitive habitats occur within the Project site, which consists mostly of disturbed/developed areas, with big sagebrush, yerba santa scrub, bigberry manzanita chaparral, and singleleaf pinyon woodland habitats present within the proposed Elm Tank to McGhee Tank replacement pipeline alignment.

## 3.3 Aquatic Resources Delineation

The Project area is within an undefined Hydrologic Sub-Area (HSA 556.30), which comprises an approximately 206,706-acre drainage area within the larger Middle Kern-Upper Tehachapi-Grapevine Watershed (HUC 18030012). This watershed is primarily within Kern County, with small portions in San Luis Obispo and Ventura Counties. The Middle Kern-Upper Tehachapi-Grapevine Watershed is bound on the north by the Tulare Lake Bed, Upper Poso, and Upper Kern Watersheds; on the east/southeast by the South Fork Kern and Antelope-Fremont Valleys Watersheds; on the south by

the Santa Clara Watershed; and on the west/southwest by the Carrizo Plain and Cuyama Watersheds. The approximately 2,617-square-mile (6,779-square-kilometer) Middle Kern-Upper Tehachapi-Grapevine Watershed is situated at the southern end of the Central Valley and drains portions of the Sierra Nevada to the east, the Transverse Ranges to the south and the Temblor Range to the west.

### 3.3.1 Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in WOTUS under Section 404 of the CWA. The Environmental Protection Agency (EPA) and USACE currently define WOTUS as:

1. Waters used either currently, previously, or susceptible to future use in interstate or foreign commerce, the territorial seas, and interstate waters.

2. Impoundments of waters otherwise defined as WOTUS, except for impoundments of those WOTUS that are identified in 5 (below).

3. Relatively permanent, standing, or continuously flowing tributaries to the WOTUS described in 1 and 2 (above).

4. Wetlands that are adjacent to waters described in 1 (above), or relatively permanent, standing or continuously flowing bodies of water identified in 2 or 3 (above) that have a continuous surface connection with those waters.

5. Intrastate lakes and ponds not identified in 1 through 4 (above) that are relatively permanent, standing, or continuously flowing bodies of water with a continuous surface connection to the waters identified in 1 or 3 (above).

   *Findings*: There are no wetland or non-wetland WOTUS present within or adjacent the Project site. The Project area is within Cuddy Canyon, along Cuddy Creek, which flows generally west to east through the Project area. Cuddy Creek is an ephemeral stream that receives surface water flows for only brief durations and in direct response to precipitation. Cuddy Creek terminates at Castac Lake approximately 5 miles east (downstream) of the Project area. However, no portion of Cuddy Creek or any other aquatic resources potentially subject to regulation by the USACE or RWQCB under Sections 404/401 of the CWA occur within or adjacent the Project site. Therefore, the Project will not impact any WOTUS and no CWA Sections 404/401 permitting will be required.

### 3.3.2 CDFW Streambed and “Waters of the State”

Under Sections 1600 through 1607 of the California FGC, the CDFW has jurisdiction over lakes, rivers, streams, or other aquatic resources, stream-dependent wildlife resources, and riparian habitats. This jurisdiction can include, but is not limited to intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, USGS blue-line streams, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance that support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994).

Additionally, the State Water Resources Control Board (SWRCB) and the nine RWQCBs in California are given regulatory jurisdiction over “waters of the State” under Porter-Cologne to protect water quality throughout California. Waters of the State are defined in Section 13050(e) of Porter-Cologne as “[…] any surface or groundwater, including saline waters, within the boundaries of the State.”

*Findings*: There are no aquatic resources, stream-dependent wildlife resources, or riparian habitats within or adjacent the Project site. Therefore, the Project will not impact any aquatic resources or habitats subject to regulation by the CDFW under Section 1602 of the FGC, nor will it impact any "waters of the State" subject to regulation by the RWQCB under Porter-Cologne.

# 4 Effects Analysis

The Crotch's bumble bee is a candidate species for listing as endangered under CESA. There is some suitable habitat and a moderate potential for this species to occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment. Crotch's bumble bee avoidance measures are recommended in the following section of this report (Section 5 – Conclusions and Recommendations). There is no suitable habitat present within or adjacent the Project site for any of the other state or federally listed or proposed for listing as threatened or endangered species, CESA candidate species, or fully protected species identified in the USFWS IPaC, CNDDB, or CNPSEI database searches conducted for the Project. Therefore, with implementation of the Crotch's bumble bee avoidance measures described in Section 5 of this report, the Project will have no effect on any state or federally listed or proposed for listing as threatened or endangered species, CESA candidate species, or fully protected species.

The proposed Project will have no effect on USFWS designated Critical Habitat. Furthermore, the proposed Project will have no effect on any resources protected under the Coastal Barriers Resources Act, Coastal Zone Management Act, Fish and Wildlife Conservation Act, Magnuson-Stevens Fishery Conservation and Management Act, the Protection of Wetlands – Executive Order 11990 or Wild and Scenic Rivers Act, respectively.

The proposed Project will not impact any federally jurisdictional waters subject to regulation by the USACE under Section 404 of the CWA or the RWQCB under Section 401 of the CWA, respectively. Furthermore, the Project will not impact any aquatic resources or habitats subject to regulation by the CDFW under Section 1602 of the California FGC or the RWQCB under Porter-Cologne, respectively.

There is vegetation and man-made structures within the Project area that could provide suitable nest sites for nesting birds. Most native bird species and their active nests (i.e., with eggs or young) are protected from unlawful take by the federal Migratory Bird Treaty Act (MBTA) of 1918. Additionally, the State of California provides protection for native bird species and their nests in the FGC under Sections 3503, 3503.5, 3511, 3513, and 3800, respectively (Appendix D: Regulatory Framework). Therefore, nesting bird avoidance measures are recommended in Section 5 of this report. With implementation of the nesting bird avoidance measures described in Section 5 of this report, the Project will have no effect on nesting birds.

# 5 Conclusions and Recommendations

## 5.1 Sensitive Biological Resources

A BRA and floristic botanical field survey that provided 100 percent visual coverage of the entire ground surface of the Project site (where feasible and appropriate) was conducted by HDR biologist Daniel Smith on June 3, 2026, to identify special status plant species and potential habitat for special status wildlife species within the Project area. The Project site included the proposed footprints for the District's proposed new Well #8 facilities and replacement pipeline alignments. The result of the field survey was that no special status plant species were observed in the Project area, and the Project site does not support suitable habitat for any of the federally listed or proposed for listing as threatened or endangered species, or state fully protected species identified in the USFWS IPaC, CNDDB, or CNPSEI database searches conducted for the Project. Furthermore, the Project will have no effect on any special status habitats, including any USFWS designated Critical Habitat for any federally listed species.

Most of the Project site is completely disturbed and no longer supports any native habitat (Appendix B: Site Photos). The proposed Well #8 site consists mostly of bare ground, with some sparse, ruderal, nonnative vegetation. There are several large oak trees in the vicinity of the Well #8 site; however, the Project will avoid all existing trees, and no trees will be removed, disturbed, or harmed by construction activities. Most of the proposed replacement pipeline alignments are within existing roads surrounded by residential development. However, the proposed replacement pipeline within the Elm Tank to McGhee Tank alignment is located partially within a previously graded District ROW and partially within undisturbed habitat immediately adjacent residential development. There is potentially suitable upland scrub habitat within and adjacent the proposed Elm Tank to McGhee Tank replacement pipeline alignment for the CESA candidate for listing as endangered Crotch's bumble bee and the coast horned lizard, which is a CDFW SSC. No other special status species are expected to occur within the Project site.

### 5.1.1 Special Status Species

***Crotch's Bumble Bee***

To avoid any potential Project related impacts to Crotch's bumble bee, it is recommended that a focused Crotch's bumble bee survey be conducted along the proposed Elm Tank to McGhee Tank replacement pipeline alignment during the colony active period (i.e., April-August).

- The survey should be conducted by a qualified biologist and should consist of at least three (3) site visits spaced 2-4 weeks apart during the colony active period. If protocol presence/absence surveys determine that Crotch's bumble bee is absent from the site, no further action would be required.
- If Crotch's bumble bee is found within the Project site during protocol surveys and Project impacts to this species cannot be avoided, an Incidental Take Permit (ITP) from the CDFW would be required prior to initiation of any Project activities that could impact this species.

Alternatively, all initial Project related ground disturbing activities (i.e., clearing/grubbing) that occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment may be conducted

under the direct supervision of a qualified biologist during the colony active period (i.e., April-August), when the probability of Crotch's bumble bee detection is highest.

- The Project Proponent should prepare and implement a Crotch's Bumble Bee Avoidance and Monitoring Plan that would be submitted to CDFW for review and approval prior to initiation of ground disturbing activities within the proposed Elm Tank to McGhee Tank replacement pipeline alignment. The Monitoring Plan should include details on avoidance and monitoring actions, such as but not limited to:
    - monitoring and surveying of potential nesting sites prior to ground disturbing activities;
    - monitoring of vegetation removal in areas of suitable habitat;
    - implementation of a Crotch's bumble bee education program from the qualified biologist with physical training materials (e.g., pamphlet or brochure);
    - avoidance buffers around suspected nesting sites determined by the biologist;
    - measures to be taken if Crotch's bumble bee is observed foraging; and
    - procedures for herbicide and pesticide application.
- A qualified biologist meeting the surveyor qualifications described in the 2023 "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species" should be present on site during all initial Project related ground disturbing activities within the proposed Elm Tank to McGhee Tank replacement pipeline alignment to ensure that any potential impacts to Crotch's bumble bee are avoided.
- The biologist should conduct at least 3 pre-construction surveys within the section of the Project site with suitable habitat that is scheduled for ground disturbing activities. Pre-construction surveys should encompass all areas of potential suitable habitat on the Project site including rodent burrows, floral resources, sloping areas or areas under trees with leaf litter, and a buffer around the Project site as determined by the biologist. If a nest is suspected but not confirmed, the biologist should flag the potential nest for avoidance and monitor the nest for activity according to the Crotch's Bumble Bee Avoidance and Monitoring Plan.
- If Crotch's bumble bee is found within the Project site during pre-construction surveys or construction monitoring and Project impacts to this species cannot be avoided, all activities likely to impact the species must cease immediately and an ITP from the CDFW would be required prior to resuming any Project activities that could impact this species.

***Coast Horned Lizard***

To avoid any potential Project related impacts to coast horned lizard, the following avoidance measures are recommended:

- For any Project activity that involves construction or ground-disturbing activities within the proposed Elm Tank to McGhee Tank replacement pipeline alignment, all construction workers should be required to participate in environmental awareness training. The training should inform Project personnel on: (1) special status species that may occur in the work area and (2) procedures to follow in the event a special status species is encountered within the Project area during construction.
- A qualified biologist should be present during construction or ground-disturbing activities within the proposed Elm Tank to McGhee Tank replacement pipeline alignment to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with Project

construction activities. Any coast horned lizards encountered on site prior to or during construction activities shall be captured by hand and relocated to adjacent appropriate habitat, at least 200 feet from the Project disturbance limits. The relocation site should be well-shaded, with a mix of dense brush and adjacent exposed bare ground, preferably with harvester ants (*Pogonomyrmex* spp.) present nearby. The biologist shall release the lizard as soon as possible, where they can take immediate refuge in dense brush.

### 5.1.2 Nesting Birds

In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1st through August 31st. However, if all work cannot be conducted outside of nesting season, the following precautionary measures are recommended to ensure MBTA and FGC compliance:

- Vegetation removal, including any tree removal or pruning, and structure demolition should be conducted outside the typical nesting season (i.e., between September 1st and January 31st).
- To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified biologist should conduct pre-construction nesting bird surveys no more than 3 days prior to the initiation of Project activities to identify any active nests. Surveys should be conducted at the appropriate time of day/night, during appropriate weather conditions (e.g., no rain or winds).
- If no active nests are found, no further action would be required. If an active nest is found, the biologist should establish an appropriate no-work buffer surrounding the nest based on their best professional judgement and experience. The nest(s) should be monitored by the biologist and buffer zone(s) should be adjusted when appropriate, depending on the biologists observations and/or any changes in Project activities. The approved no-work buffer zone(s) should be clearly marked in the field, within which no disturbance activity should commence until the biologist has determined the young birds have successfully fledged and the nest is inactive.

## 5.2 Jurisdictional Aquatic Resources

In addition to the BRA field surveys, HDR also assessed the Project area for the presence of any state and/or federally jurisdictional aquatic resources. There are no wetland or non-wetland WOTUS present within the Project site. Therefore, no CWA Sections 404/401 permitting through the USACE or RWQCB would be required. Furthermore, there are no aquatic resources or habitats subject to regulation by the CDFW under Section 1602 of the California FGC or the RWQCB under Porter-Cologne, respectively.

# 6 References

California Department of Fish and Game (CDFG). 1994. A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607 California Fish and Game Code. Environmental Services Division, January 1994.

California Native Plant Society, Rare Plant Program. 2026. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 19 June 2026].

California Natural Diversity Database (CNDDB). 2026. *RareFind 5* [Internet]. California Department of Fish and Wildlife, Version 5.4.0. Available at: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data, accessed on May 28, 2026.

Goulson, D. 2010. Bumblebees: behaviour, ecology, and conservation. Oxford University Press, New York, NY.

Griffith, G.E., Omernik, J.M., Smith, D.W., Cook, T.D., Tallyn, E., Moseley, K., and Johnson, C.B., 2016, Ecoregions of California (poster): U.S. Geological Survey Open-File Report 2016–1021, with map, scale 1:1,100,000, http://dx.doi.org/10.3133/ofr20161021.

Hatfield, R., S. Jepsen, R. Thorp, L. Richardson, and S. Colla. 2015. *Bombus crotchii*. The IUCN Red List of Threatened Species 2015: e.T44937582A46440211. https://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937582A46440211.en, accessed on May 28, 2026.

iNaturalist. Available from https://www.inaturalist.org, accessed on May 28, 2026.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List*: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

Morey, S. 2000. Life history account for Blainville's horned lizard (*Phrynosoma blainvillii*). California Wildlife Habitat Relationships System, California Department of Fish and Wildlife, California Interagency Wildlife Task Group.

Sawyer, John O., Keeler-Wolf, Todd, and Evens, Julie M. 2009. A manual of California vegetation. Second Edition. California Native Plant Society, Sacramento, California, USA. 1,300 pages.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: http://websoilsurvey.sc.egov.usda.gov/, accessed on May 28, 2026.

U.S. Fish and Wildlife Service (USFWS). Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/, accessed on May 28, 2026.

U.S. Fish and Wildlife Service. 2024. Monarch Butterfly (*Danaus plexippus*) Species Status Assessment Report. Version 2.3. Midwest Regional Office.

Williams, P. H., R. W. Thorp, L. L. Richardson, S. R. and Colla. 2014. The Bumble bees of North America: An Identification guide. Princeton University Press, Princeton.

# Appendix A. Special Status Species Occurrence Potential

**Special Status Species Occurrence Potential**

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Acanthomintha obovata* ssp. *cordata* | heart-leaved thorn-mint | None/ None | G4T3; S3; CNPS: 4.2 | Cismontane woodland, chaparral, valley and foothill grassland, pinyon and juniper woodland. Heavy adobe-clay soil (probably a vertisol). Grassy openings in woodland and chaparral. 785-1540 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Acanthoscyphus parishii* var. *abramsii* | Abrams' oxytheca | None/ None | G4?T1T2; S1S2; CNPS: 1B.2 | Chaparral. Shale or sandy places. 1675-2075 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Actinemys marmorata* | northwestern pond turtle | Proposed Threatened/ None | G2; SNR; CDFW: SSC | Requires both aquatic and terrestrial habitats. Permanent and seasonal aquatic habitats including rivers, sloughs, lakes, reservoirs, ponds, and irrigation canals, with sites for basking, such as rocks, sand, mud, downed logs, submerged branches of near-shore vegetation, and emergent or submerged aquatic vegetation. Nests in small open areas along trails, levees, roadbeds, fields, grasslands, stream banks, and within utility right-of-ways; may overwinter up to 500 meters (1,640 feet) from aquatic habitat but typically nests within 100 meters (328 feet) of aquatic habitat (average 51 meters). | The nearest documented pond turtle occurrence (date unknown) is approx. 4.2 miles NE of the Project area and there is no suitable aquatic habitat for this species within or adjacent the Project site. There is potentially suitable aquatic habitat for this species approximately 800-1,800 feet east of the proposed Well #8 site consisting of several artificial ponds. However, there is no suitable nesting, overwintering, dispersal, or aestivation habitat within the Project site. **Not expected to occur.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Allium howellii* var. *clokeyi* | Mt. Pinos onion | None/ None | G4T2; S2; CNPS: 1B.3 | Great Basin scrub, pinyon and juniper woodland, meadows and seeps (edges). 1385-1800 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Anniella* spp. | California legless lizard | None/ None | G3G4; S3S4; CDFW: SSC | Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of *Anniella* not yet assigned to new species within the *Anniella pulchra* complex. Variety of habitats; generally, in moist, loose soil. They prefer soils with a high moisture content. | No suitable habitat within the Project site. The soil conditions this species requires are absent from the Project site. **Not expected to occur.** |
| *Antrozous pallidus* | pallid bat | None/ None | G4; S3; CDFW: SSC | Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. | No suitable roosting habitat within the Project site. **Not expected to occur.** |
| *Arizona elegans occidentalis* | California glossy snake | None/ None | G5T2; S2; CDFW: SSC | Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils. | The Project area is outside the known range of this subspecies. **Not expected to occur.** |
| *Astragalus hornii* var. *hornii* | Horn's milk-vetch | None/ None | GUT1; S1; CNPS: 1B.1 | Meadows and seeps, playas. Lake margins, alkaline sites. 75-350 m. | No suitable habitat within the Project site. **Not expected to occur.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Astur cooperii* | Cooper's hawk | None/ None | G5; S4; CDFW: WL | Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks. | No suitable nesting habitat within the Project site. **Not expected to occur.** |
| *Batrachoseps stebbinsi* | Tehachapi slender salamander | None/ Threatened | G2G3; S2 | Valley-foothill hardwood-conifer and valley-foothill riparian in the Piute and Tehachapi mountains of Kern County. Prefers wet talus slopes or log-strewn hillsides with a steep, north-facing exposure. | The nearest documented Tehachapi slender salamander occurrence (1990) is approx. 4 miles NE of the Project area. However, the valley-foothill hardwood-conifer and valley-foothill riparian habitats this species occurs in are not present within the Project site, there are no talus slopes on site, and the undeveloped portions of the proposed Project footprint are dry and exposed. **Not expected to occur.** |
| *Bombus caliginosus* | obscure bumble bee | None/ None | G2G3; S1S2 | Coastal areas from Santa Barbara County north to Washington state. Food plant genera include *Baccharis, Cirsium, Lupinus, Lotus, Grindelia,* and *Phacelia*. | This species was documented in the vicinity of Frazier Park in 1988. However, the Project site is outside the current known range of this species, which is restricted to coastal areas from Santa Barbara County, California, north to southern British Columbia. The next closest CNDDB occurrence (1965) is approx. 50 miles SW of the Project site and the nearest documented occurrence in iNaturalist is approx. 92 miles W of the Project site. **Not expected to occur**. |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Bombus crotchii* | Crotch's bumble bee | None/ Candidate Endangered | G2; S2 | Coastal California east to the Sierra-Cascade crest and south into Mexico. Preferred food plant genera include *Antirrhinum, Asclepias, Clarkia, Chaenactis, Dendromecon, Eschscholzia, Eriogonum, Lupinus, Medicago, Phacelia,* and *Salvia*. | This species has been documented in the vicinity of Frazier Park and there are several potential Crotch's bumble bee forage plant species present at low cover within the proposed Elm Tank to McGhee Tank replacement pipeline alignment, including at least one preferred genus (*Eriogonum* spp.). Therefore, this species has a **moderate potential to occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment.** No other areas within the Project site are potentially suitable for Crotch's bumble bee and this species is not expected to occur elsewhere within the Project site. |
| *Calochortus palmeri* var. *palmeri* | Palmer's mariposa-lily | None/ None | G3T2; S2; CNPS: 1B.2 | Meadows and seeps, chaparral, lower montane coniferous forest. Vernally moist places in yellow-pine forest, chaparral. 195-2530 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Caulanthus lemmonii* | Lemmon's jewelflower | None/ None | G3; S3; CNPS: 1B.2 | Pinyon and juniper woodland, valley and foothill grassland. 75-1585 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Charina umbratica* | southern rubber boa | None/ Threatened | G2G3; S2 | Found in a variety of montane forest habitats. Previously considered morphologically intermediate, recent (2022) genomic analysis clarifies individuals from Mt Pinos, Tehachapi Mts, and southern Sierra Nevada are southern rubber boa. Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter. | The nearest documented rubber boa occurrence (date unknown) is approx. 2.8 miles S of the Project area, in the vicinity of Frazier Mountain (CDFW pers. comm.). However, there is no suitable habitat for this species within the Project site. **Not expected to occur.** |
| *Corynorhinus townsendii* | Townsend's big-eared bat | None/ None | G4; S2; CDFW: SSC | Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance. | No suitable roosting habitat within the Project site, which is subject to a high degree of human disturbance. **Not expected to occur.** |
| *Danaus plexippus* | monarch butterfly | Proposed Threatened/ None | G4T1T2Q; S2 | Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. | The larval host plants (*Asclepias* spp.) required by this species are absent from the Project site and there is no suitable winter roosting habitat within the Project area. **Not expected to occur.** |
| *Delphinium inopinum* | unexpected larkspur | None/ None | G3; S3; CNPS: 4.3 | Upper montane coniferous forest. On open rocky ridgetops; on metamorphics in red fir and western white pine forest. 1890-2800 m. | The Project site is outside of the known elevation range for this species, and the red fir and western white pine forest habitats this species is associated with are absent from the Project area. **Not expected to occur.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Delphinium parryi* ssp. *purpureum* | Mt. Pinos larkspur | None/ None | G4T4; S4; CNPS: 4.3 | Pinyon and juniper woodland, Mojavean desert scrub, chaparral. 1000-2600 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Dendragapus fuliginosus howardi* | Mount Pinos sooty grouse | None/ None | G5T2T3; S3; CDFW: SSC | Inhabitant of southern Sierra Nevada mountains, in small islands of populations. Mainly inhabits white fir covered slopes. Also found in other conifer types and open, brushy areas adjacent to forest. | There is no suitable habitat for this species within the Project area, which is outside the current known range of this species. **Not expected to occur.** |
| *Empidonax traillii extimus* | southwestern willow flycatcher | Endangered/ Endagered | G5T2; S3 | Riparian woodlands in Southern California. | The nearest documented SWFL occurrence (2007) is approx. 30 miles S of the Project area and there is no suitable riparian habitat for this species within the Project site. **Not expected to occur.** |
| *Ensatina eschscholtzii croceater* | yellow-blotched salamander | None/ None | G5T3; S3; CDFW: WL | Forests and well-shaded canyons, as well as oak woodlands and old chaparral. Needs surface objects, such as logs, boards, and rocks. Also needs old rodent burrows or other underground retreats. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Eriophyllum lanatum* var. *hallii* | Fort Tejon woolly sunflower | None/ None | G5T1; S1; CNPS: 1B.1 | Chaparral, cismontane woodland. Often on slopes in loamy soils. 1065-1435 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Eschscholzia lemmonii* ssp. *kernensis* | Tejon poppy | None/ None | G5T2; S2; CNPS: 1B.1 | Valley and foothill grassland, chenopod scrub. Little information available on habitat. 135-1355 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Frasera neglecta* | pine green-gentian | None/ None | G4; S4; CNPS: 4.3 | Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Dry, open woodlands. 1400-2500 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Gilia interior* | inland gilia | None/ None | G4; S4; CNPS: 4.3 | Cismontane woodland, Joshua tree woodland, lower montane coniferous forest. Rocky sites. 700-1700 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Gilia latiflora* ssp. *cuyamensis* | Cuyama gilia | None/ None | G5?T4; S4; CNPS: 4.3 | Pinyon and juniper woodland. Sandy flats, lower river valleys. 595-2000 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Gilia leptantha* ssp. *pinetorum* | pine gilia | None/ None | G4T4; S4; CNPS: 4.3 | Lower montane coniferous forest. Bare summits, open, rocky or sandy, with pines. 1500-2800 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Gymnogyps californianus* | California condor | Endangered/ Endangered | G1; S2; CDFW: FP | Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest. | There is no suitable nesting habitat for this species within the Project area, which is subject to a high degree of human disturbance. **Not expected to occur.** |
| *Helminthoglypta uvasana* | Grapevine shoulderband | None/ None | G1; S1 | Air-breathing terrestrial snail. Known from type locality along Grapevine Creek in Castaic Valley, in the vicinity of Fort Tejon. Additional historical specimen from about 21 mi SSE of type locality, Oak Flat Ranger Station. Found under downed oak logs in leaf litter, in brush, and in woodrat nests; among valley oak, nettle and poison oak in valley oak woodland grading to chaparral. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Hulsea vestita* ssp. *gabrielensis* | San Gabriel Mountains sunflower | None/ None | G5T3; S3; CNPS: 4.3 | Lower montane coniferous forest, upper montane coniferous forest. Rocky sites. 1500-2500 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Iris longipetala* | coast iris | None/ None | G3; S3; CNPS: 4.2 | Coastal prairie, lower montane coniferous forest, meadows and seeps. Mesic sites, heavy soils. 0-600 m. | The Project site is outside of the known elevation range for this species, and there is no suitable habitat within the Project site. **Not expected to occur.** |
| *Layia heterotricha* | pale-yellow layia | None/ None | G2; S2; CNPS: 1B.1 | Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. 90-1800 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Lessingia tenuis* | spring lessnigia | None/ None | G4; S4; CNPS: 4.3 | Chaparral, cismontane woodland, lower montane coniferous forest. Openings. 300-2150 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Monardella linoides* ssp. *oblonga* | Tehachapi monardella | None/ None | G5T2; S2; CNPS: 1B.3 | Lower montane coniferous forest, upper montane coniferous forest, pinyon and juniper woodland. On dry slopes of yellow pine forest, decomposed granitic soils; also in roadside disturbed areas. 1430-2655 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Myotis ciliolabrum* | western small-footed myotis | None/ None | G5; S3 | Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects. | No suitable roosting habitat within the Project site, which is subject to a high degree of human disturbance. **Not expected to occur.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Myotis thysanodes* | fringed myotis | None/ None | G4; S3 | In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts. | No suitable roosting habitat within the Project site, which is subject to a high degree of human disturbance. **Not expected to occur.** |
| *Myotis volans* | long-legged myotis | None/ None | G4G5; S3 | Most common in woodland and forest habitats above 4,000 ft. Trees are important day roosts; caves and mines are night roosts. Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings. | Some suitable tree roosts adjacent the Project site, but the Project will avoid all existing trees, and no trees will be removed, disturbed, or harmed by construction activities. **Not expected to occur.** |
| *Myotis yumanensis* | Yuma myotis | None/ None | G5; S4 | Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices. | No suitable roosting or foraging habitat within the Project site, which is subject to a high degree of human disturbance. **Not expected to occur.** |
| *Navarretia peninsularis* | Baja navarretia | None/ None | G3; S2; CNPS: 1B.2 | Lower montane coniferous forest, chaparral, meadows and seeps, pinyon and juniper woodland. Wet areas in open forest. 1150-2365 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Navarretia setiloba* | Piute Mountains navarretia | None/ None | G2; S2; CNPS: 1B.1 | Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Red clay soils, or on gravelly loam. 180-1645 m. | No suitable habitat within the Project site. **Not expected to occur.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Nemacladus secundiflorus* var. *robbinsii* | Robbins' nemacladus | None/ None | G3T2; S2; CNPS: 1B.2 | Chaparral, valley and foothill grassland. Dry, sandy or gravelly slopes. Openings. 360-1710 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Neotamias speciosus callipeplus* | Mount Pinos chipmunk | None/ None | G4T2; S2 | Open forests with a mix of shrubs and trees on the upper slopes and summit of Mt. Abel and Mt. Frazier. Arboreal habits - rarely ventures far from tree cover. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Perideridia pringlei* | adobe yampah | None/ None | G4; S4; CNPS: 4.3 | Chaparral, cismontane woodland, pinyon and juniper woodland, coastal scrub. Serpentine, clay soils. Grassland hillsides; seasonally wet sites. 300-1800 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Perognathus alticola inexpectatus* | Tehachapi pocket mouse | None/ None | G2T1T2; S1S2; CDFW: SSC | Arid annual grassland and desert shrub communities but also taken in fallow grain fields and in Russian thistle. Burrows for cover and nesting. Aestivates and hibernates during extreme weather. Forages on open ground and under shrubs. | No annual grassland, desert shrub communities, fallow grain fields, or Russian thistle dominated habitats present within the Project site, and the nearest documented occurrence for this species (1973) is approx. 4.8 miles SE of the Project area. **Not expected to occur.** |
| *Phacelia exilis* | Transverse Range phacelia | None/ None | G4Q; S4; CNPS: 4.3 | Meadows and seeps, lower montane coniferous forest, upper montane coniferous forest, pebble (pavement) plain. Sandy or rocky slopes, flats, meadows. 1100-2700 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Phrynosoma blainvillii* | coast horned lizard | None/ None | G4; S4; CDFW: SSC | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. | This species has been documented in the immediate Project vicinity and there is suitable habitat for this species within and adjacent the proposed Elm Tank to McGhee Tank replacement pipeline alignment. Therefore, this species has a **high potential to occur within the proposed Elm Tank to McGhee Tank replacement pipeline alignment.** No other areas within the Project site are potentially suitable for coast horned lizard and this species is not expected to occur elsewhere within the Project site. |
| *Plebulina emigdionis* | San Emigdio blue butterfly | None/ None | G1G2; S1S2 | Found in desert canyons and along riverbeds in Inyo, Kern, Los Angeles, and San Bernardino counties. Host plant is *Atriplex canescens*; maybe *Lotus purshianus* also. | The host plants required by this species are absent from the Project site. **Not expected to occur.** |
| *Pyrgulopsis greggi* | Kern River pyrg | None/ None | G1; S1 | Restricted to the Grapevine Creek drainage in the Upper Kern River basin. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Sidalcea neomexicana* | salt spring checkerbloom | None/ None | G4; S2; CNPS: 2B.2 | Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 3-2380 m. | No suitable habitat within the Project site. **Not expected to occur.** |
| *Symphyotrichum defoliatum* | San Bernardino aster | None/ None | G2; S2; CNPS: 1B.2 | Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3-2045 m. | No suitable habitat within the Project site. **Not expected to occur.** |

| Scientific Name | Common Name | Listing Status Federal/ State | Other Status | Habitat | Occurrence Potential |
|---|---|---|---|---|---|
| *Taxidea taxus* | American badger | None/ None | G5; S3; CDFW: SSC | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows. | The Project site is within and adjacent a disturbed urban environment. **Not expected to occur.** |
| | Valley Needlegrass Grassland | None/ None | G3; S3.1 | | This habitat is **absent from the Project site.** |
| | Valley Oak Woodland | None/ None | G3; S2.1 | | This habitat is **absent from the Project site.** |
| *Viola pinetorum* ssp. *grisea* | grey-leaved violet | None/ None | G4G5T3; S3; CNPS: 1B.2 | Subalpine coniferous forest, upper montane coniferous forest, meadows and seeps. Dry mountain peaks and slopes. 1580-3700 m. | Some suitable habitat for this species is present within the Elm Tank to McGhee Tank replacement pipeline alignment. However, this species was not observed on site during the floristic botanical field survey conducted by HDR in June of 2026. This species is considered **absent from the Project site.** |
| *Vulpes macrotis mutica* | San Joaquin kit fox | Endangered/ Threatened | G4T2; S3 | Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base. | The nearest documented SJKF occurrence (1975) is approx. 7 miles N of the Project area. However, the Project area is outside the current and historic range of this species. **Not expected to occur.** |
| | Wildflower Field | None/ None | G2; S2.2 | | This habitat is **absent from the Project site.** |

## Coding and Terms

**E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare**

**State Species of Special Concern:** An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

**State Fully Protected:** The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

**Global Rankings (Species or Natural Community Level):**
G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = Secure – Common; widespread and abundant.

**Subspecies Level:** Taxa which are subspecies or varieties receive a taxon rank (T-rank) attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa.* The T-rank refers only to the global condition of ssp. *phaea*.

**State Ranking:**
S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the State.

**California Rare Plant Rankings (CNPS List):**
1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California, but common elsewhere.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed; a review list.
4 = Plants of limited distribution; a watch list.

**Threat Ranks:**
.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

# Appendix B. Site Photos


Photo 1. Proposed new Well #8 site from S side of Frazier Mountain Park Road. Oak trees in the far ground will be avoided.


Photo 2. Proposed access road alignment to connect the new Well #8 to the water storage tank located at the existing Well #5 site.


Photo 3. Existing Well #5 and storage tank site.


Photo 4. Replacement pipeline alignment within Texas Trail.


Photo 5. Replacement pipeline alignment within North End Trail. Los Padres Drive on the left, North End Trail on the right.

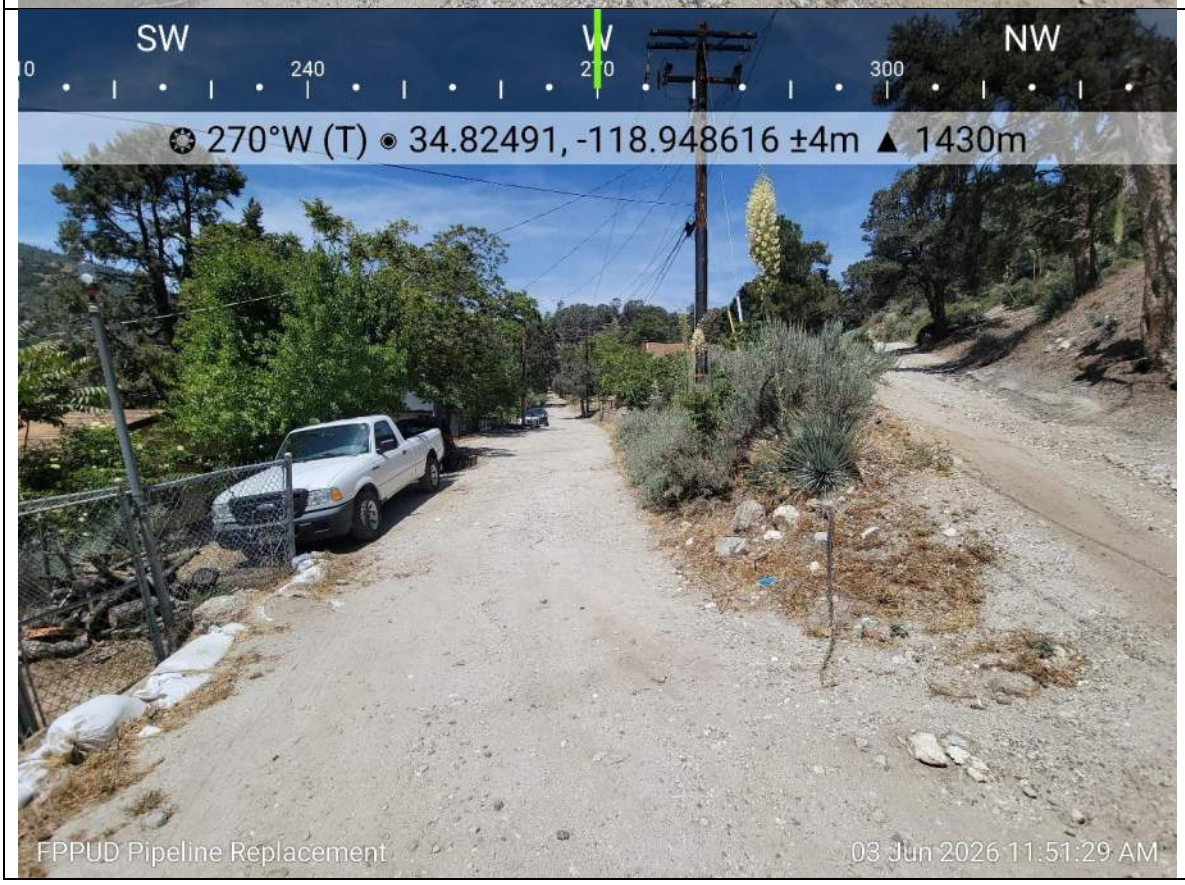



Photo 6. Replacement pipeline alignment within Laurel Avenue. North End Trail on the right, Laurel Avenue on the left.


Photo 7. Replacement pipeline alignment within Oregon Drive. North End Trail on the right, Oregon Drive on the left.


Photo 8. Replacement pipeline alignment within Oakdale Drive. North End Trail on the right, Oakdale Drive on the left.


Photo 9. Replacement pipeline alignment within Manita Trail. North End Trail on the right, Oakdale Drive on the left.

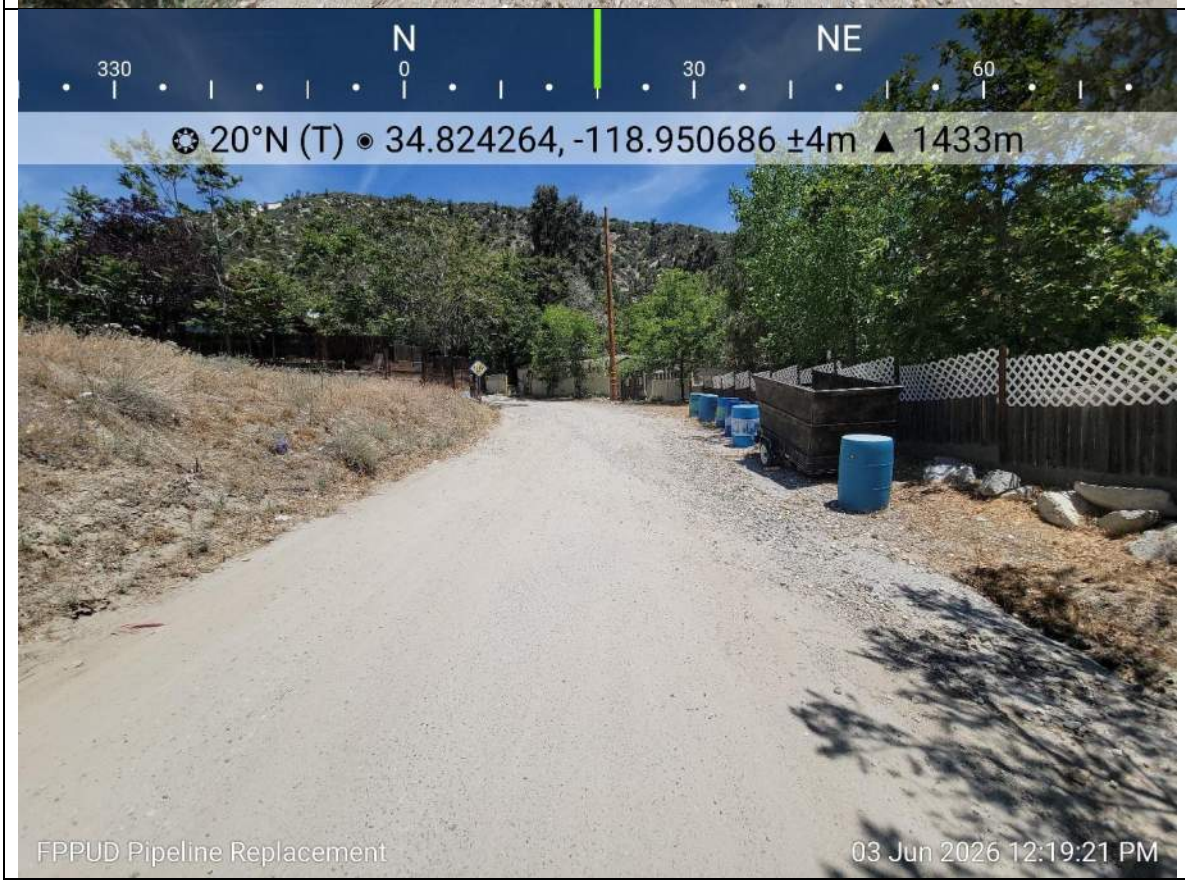



Photo 10. Replacement pipeline alignment within Manita Trail from Los Padres Drive.


Photo 11. Replacement pipeline alignment within Elm Trail from Mt. Pinos Way.

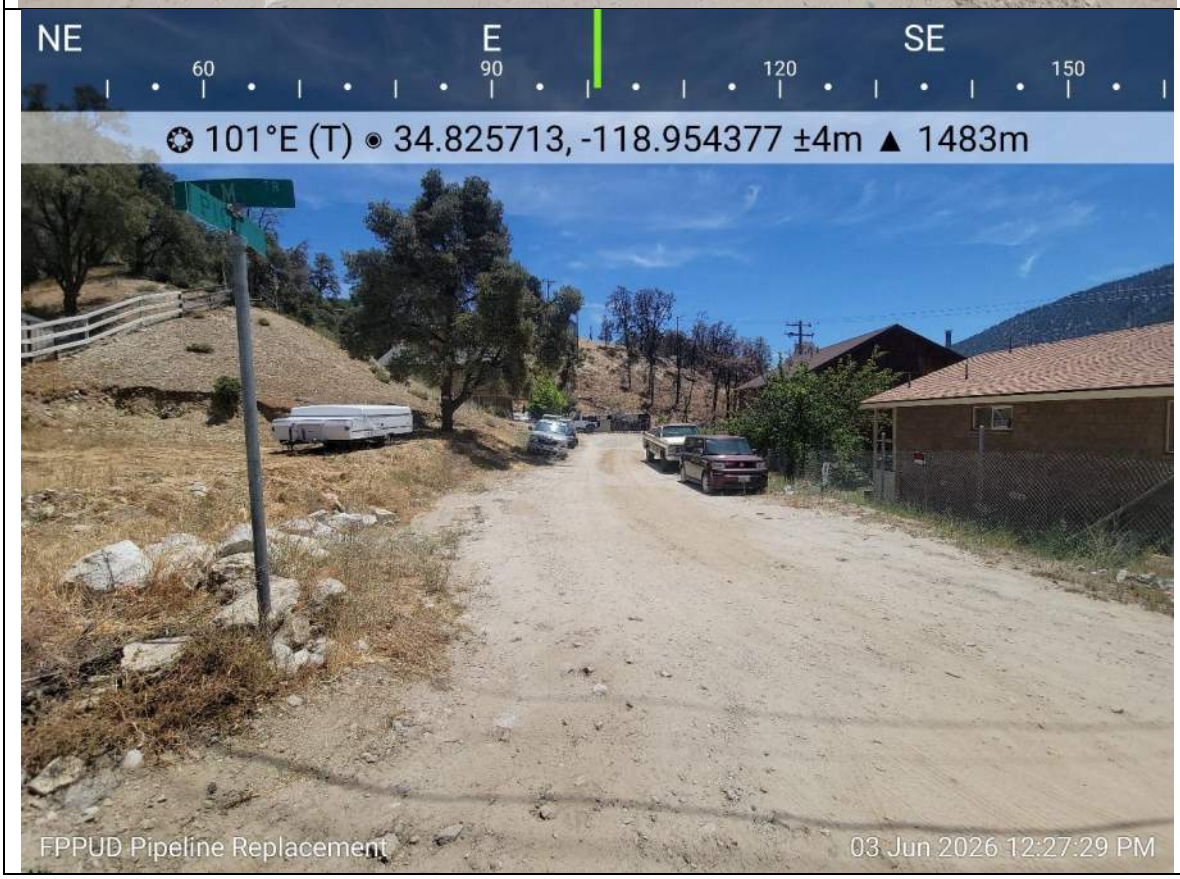



Photo 12. Replacement pipeline alignment within Pico Trail from Elm Trail.

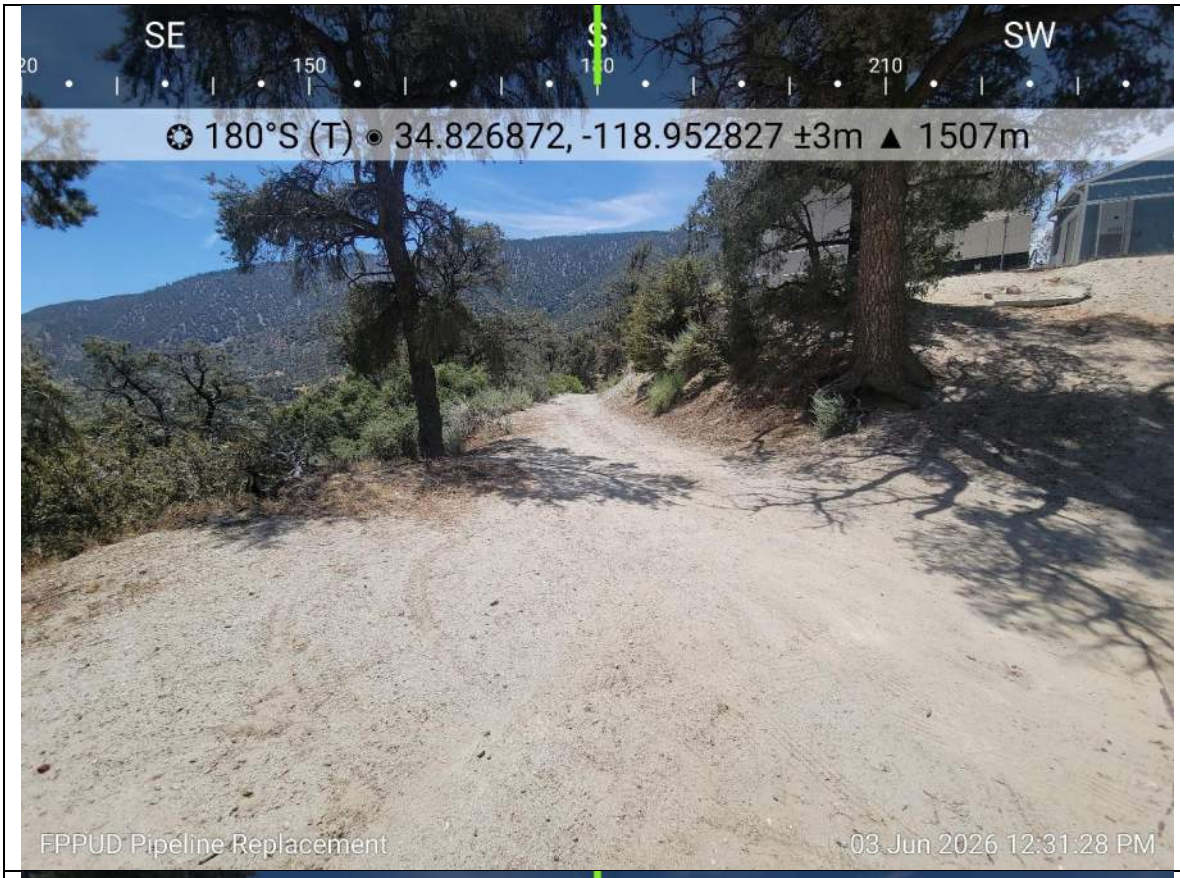
| | |
|---|---|
|  | Photo 13. Replacement pipeline alignment within North Summit Drive from North End Drive. Existing Elm Storage Tank on the right. |
|  | Photo 14. Replacement pipeline alignment within North Summit Drive from Elm Trail. |


Photo 15. Replacement pipeline alignment within Julin Trail from Decator Trail.

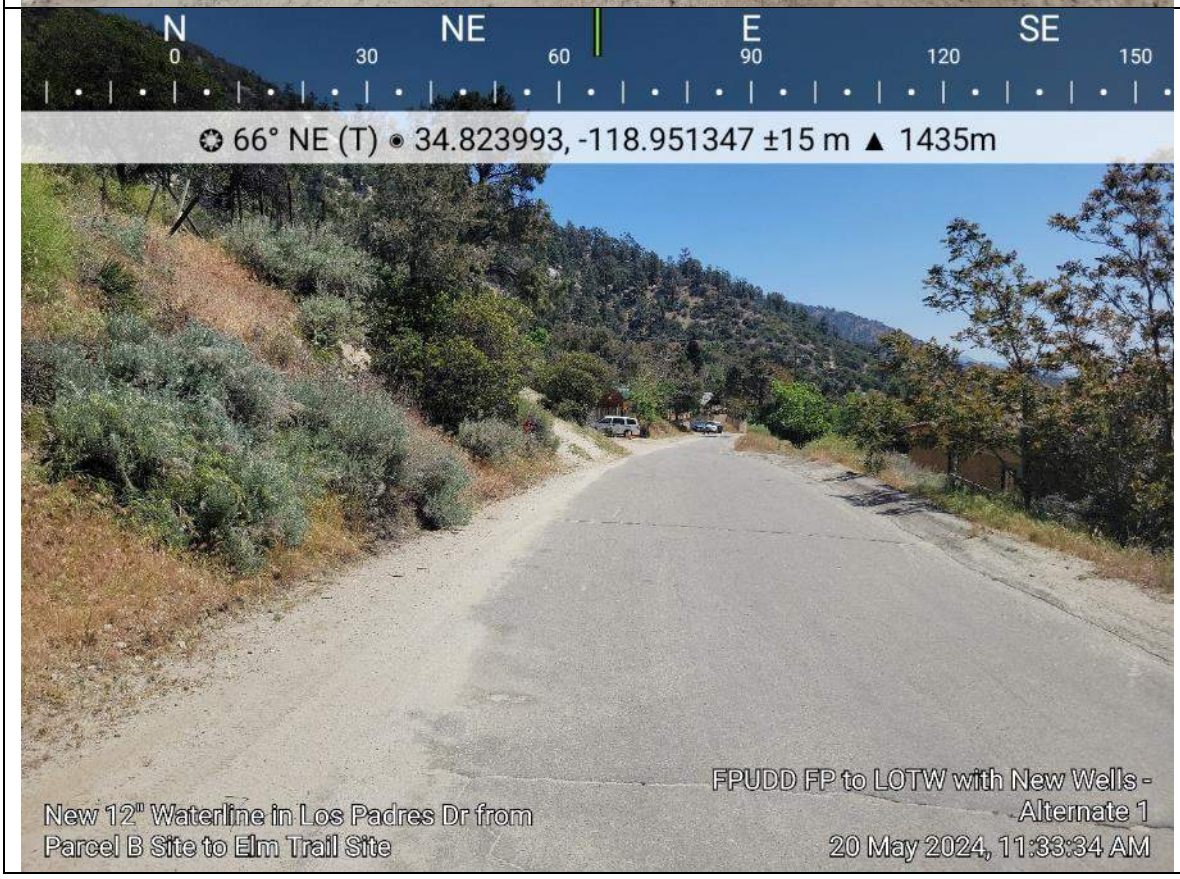



Photo 16. Replacement pipeline alignment within Grant Trail.

| | |
|---|---|
|  | Photo 17. Replacement pipeline alignment within Grant Trail. |
|  | Photo 18. Replacement pipeline alignment within Mead Trail from Alcot Trail. |

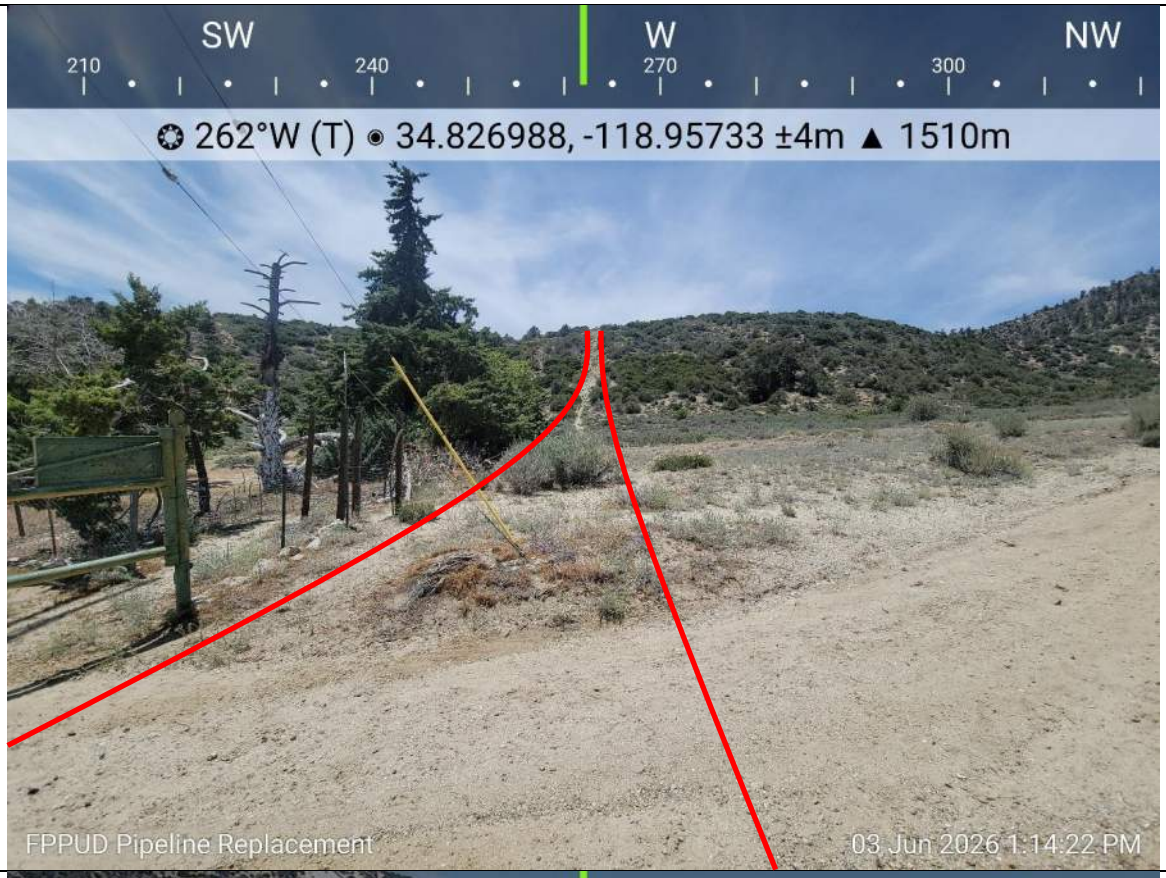



Photo 19. Replacement pipeline alignment between Elm Tank and McGhee Tank.

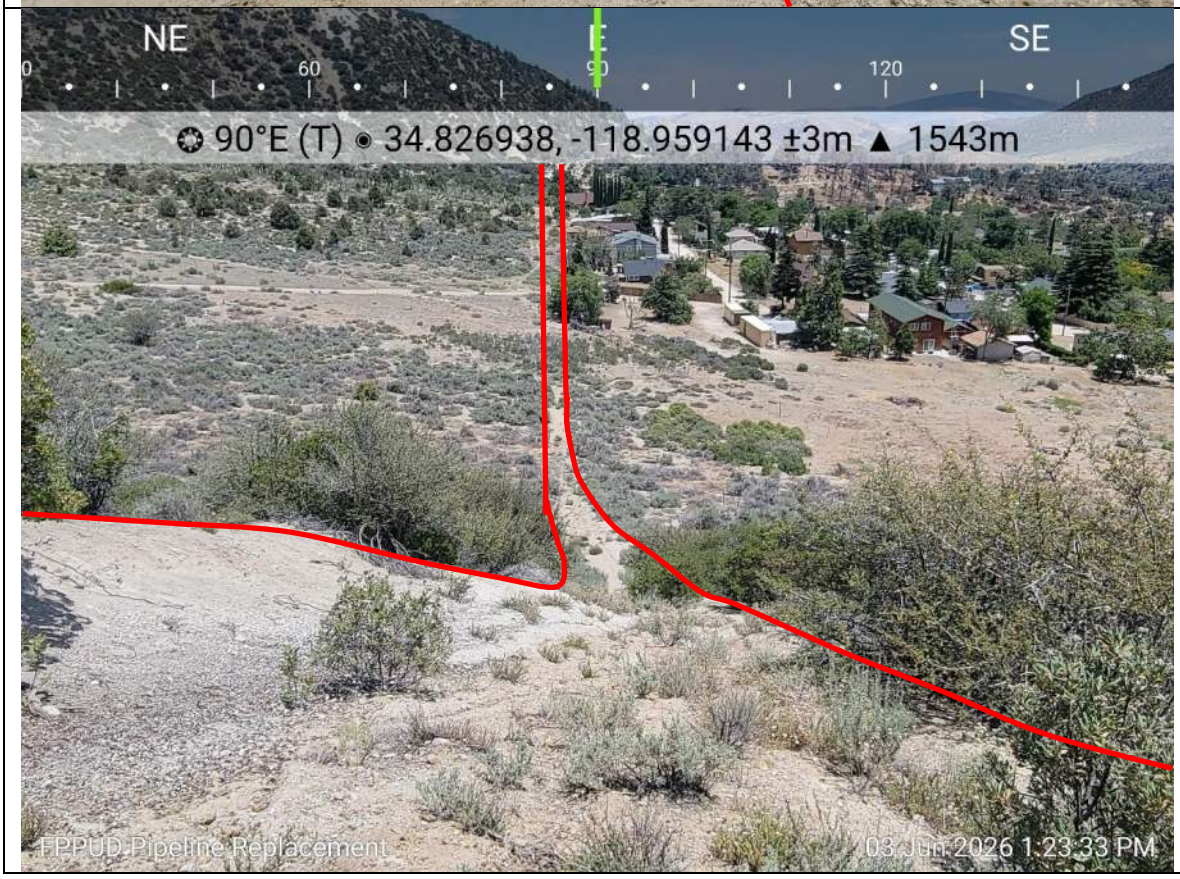



Photo 20. Replacement pipeline alignment between Elm Tank and McGhee Tank.

# Appendix C. Plant Species List

## List of Plant Species Observed in the Project Area

| Scientific Name | Common Name | Life Form | Wetland Indicator |
|---|---|---|---|
| **Agavaceae** | **Agave Family** | | |
| *Hesperoyucca whipplei* | Chaparral yucca | Shrub | NL – UPL |
| | | | |
| **Asteraceae** | **Aster Family** | | |
| *Artemisia californica* | California sagebrush | Shrub | NL – UPL |
| *Artemisia dracunculus* | Tarragon | Perennial herb | FACU |
| *Artemisia tridentata* ssp. *tridentata* | Basin big sagebrush | Shrub | NL – UPL |
| *Chrysothamnus viscidiflorus* ssp. *viscidiflorus* | Sticky leaved rabbitbrush | Shrub | NL – UPL |
| *Corethrogyne filaginifolia* | Common sandaster | Perennial herb | NL – UPL |
| *Eriastrum densifolium* | Giant eriastrum | Perennial heb | NL – UPL |
| *Eriastrum* sp. | Annual woollystar | Annual herb | NL – UPL |
| *Ericameria linearifolia* | Interior goldenbush | Shrub | NL – UPL |
| *Ericameria nauseosa* | Rubber rabbitbrush | Shrub | NL – UPL |
| *Erigeron foliosus* | Leafy daisy | Perennial herb | NL – UPL |
| *Senecio flaccidus* var. *douglasii* | Bush groundsel | Shrub | NL – UPL |
| | | | |
| **Brassicaceae** | **Mustard Family** | | |
| *Hirschfeldia incana*** | Short podded mustard** | Perennial herb | NL – UPL |
| *Sisymbrium altissimum** | Tumble mustard* | Annual herb | FACU |
| | | | |
| **Ephedraceae** | **Ephedra Family** | | |
| *Ephedra viridis* | Green ephedra | Shrub | NL – UPL |
| | | | |
| **Ericaceae** | **Heath Family** | | |
| *Arctostaphylos glauca* | Big berry manzanita | Tree or shrub | NL – UPL |
| | | | |
| **Fagaceae** | **Beech Family** | | |
| *Quercus* spp. | Oaks | Tree or shrub | NL - UPL |
| | | | |
| **Geraniaceae** | **Geranium Family** | | |
| *Erodium cicutarium*** | Coastal heron's bill** | Annual herb | NL – UPL |
| | | | |
| **Grossulariaceae** | **Gooseberry Family** | | |
| *Ribes quercetorum* | Oak gooseberry | Shrub | NL – UPL |
| | | | |
| **Hydrophyllaceae** | **Waterleaf Family** | | |
| *Emmenanthe penduliflora* | Whispering bells | Annual herb | NL – UPL |
| | | | |
| **Malvaceae** | **Mallow Family** | | |
| *Fremontodendron californicum* | California fremontia | Shrub | NL – UPL |
| | | | |

| Scientific Name | Common Name | Life Form | Wetland Indicator |
|---|---|---|---|
| **Namaceae** | **Fiddeleaf Family** | | |
| *Eriodictyon crassifolium* var. *nigrescens* | Thick leaved yerba santa | Shrub | NL – UPL |
| | | | |
| **Oleaceae** | **Olive Family** | | |
| *Fraxinus* sp. | Ash | Tree | Unknown |
| | | | |
| **Pinaceae** | **Pine Family** | | |
| *Pinus jeffreyi* | Jeffrey Pine | Tree | NL – UPL |
| *Pinus monophylla* | Single leaf pinyon pine | Tree | NL – UPL |
| | | | |
| **Poaceae** | **Grass Family** | | |
| *Avena* sp.** | Wild oat** | Annual grass | NL – UPL |
| *Bromus diandrus*** | Ripgut brome** | Annual grass | NL – UPL |
| *Bromus tectorum*** | Downy chess** | Annual grass | NL – UPL |
| *Hordeum murinum*** | Foxtail barley** | Annual grass | FACU |
| *Poa secunda* | Pine bluegrass | Perennial grass | FACU |
| *Stipa speciosa* | Desert needle grass | Perennial grass | NL – UPL |
| | | | |
| **Polygonaceae** | **Buckwheat Family** | | |
| *Eriogonum fasciculatum* | California buckwheat | Shrub | NL – UPL |
| *Eriogonum roseum* | Wand buckwheat | Annual herb | NL – UPL |
| | | | |
| **Plantaginaceae** | **Plantain Family** | | |
| *Linaria dalmatica*** | Dalmatian toadflax** | Perennial herb | |
| *Penstemon centranthifolius* | Scarlet bugler | Perennial herb | NL – UPL |
| *Penstemon grinnellii* var. *scrophularioides* | Grinnell's beardtongue | Perennial herb | NL – UPL |
| | | | |
| **Rhamnaceae** | **Buckthorn Family** | | |
| *Ceanothus cuneatus* | Buck brush | Shrub | NL – UPL |
| *Ceanothus pauciflorus* | Mojave ceanothus | Shrub | NL – UPL |
| *Rhamnus ilicifolia* | Evergreen buckthorn | Shrub | NL – UPL |
| | | | |
| **Rosaceae** | **Rose Family** | | |
| *Cercocarpus betuloides* | Birch leaf mountain mahogany | Tree or shrub | NL – UPL |
| *Purshia tridentata* var. *glandulosa* | Antelope brush | Shrub | NL – UPL |
| | | | |
| **Simaroubaceae** | **Quassia Family** | | |
| *Ailanthus altissima*** | Tree of heaven** | Tree | FACU |

**Notes:**
*Non-native
**Invasive, non-native

FAC = facultative
FACU = facultative upland
FACW = facultative wetland
NL = not listed
OBL = obligate wetland
UPL = obligate upland

# Appendix D. Regulatory Framework

## Federal Regulations

### *Clean Water Act*

The purpose of the Clean Water Act (CWA) of 1977 is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" (WOTUS) without a permit from the United States Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] 328.3 7b). The U.S. Environmental Protection Agency (EPA) also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; in California this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

### *Federal Endangered Species Act (ESA)*

The federal Endangered Species Act (ESA) of 1973 protects plants and wildlife that are listed by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA (USA) prohibits the taking of endangered wildlife, where taking is defined as any effort to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 United States Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its Critical Habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity, provided the action will not jeopardize the continued existence of the species. The ESA specifies that the USFWS designate habitat for a species at the time of its listing in which are found the physical or biological features "essential to the conservation of the species," or which may require "special Management consideration or protection..." (16 USC § 1533[a][3].2; 16 USC § 1532[a]). This designated Critical Habitat is then afforded the same protection under the ESA as individuals of the species itself, requiring issuance of an Incidental Take Permit prior to any activity that results in "the destruction or adverse modification of habitat determined to be critical" (16 USC § 1536[a][2]).

### *Interagency Consultation and Biological Assessments*

Section 7 of ESA provides a means for authorizing the "take" of threatened or endangered species by federal agencies, and applies to actions that are conducted, permitted, or funded by a federal agency. The statute requires federal agencies to consult with the USFWS or National Marine Fisheries Service (NMFS), as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of Critical Habitat for these species. If a Proposed Project "may affect" a listed species or destroy or modify Critical Habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the potential effect.

### *Habitat Conservation Plans*

Section 10 of the federal ESA requires the acquisition of an Incidental Take Permit (ITP) from the USFWS by non-federal landowners for activities that might incidentally harm (or "take") endangered or threatened wildlife on their land. To obtain a permit, an applicant must develop a Habitat Conservation Plan that is designed to offset any harmful impacts the proposed activity might have on the species.

### *Fish and Wildlife Coordination Act*

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661 to 667e et seq.) applies to any federal Project where any body of water is impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with the USFWS and the appropriate state wildlife agency.

### *Bald and Golden Eagle Protection Act*

The Bald and Golden Eagle Protection Act (The Eagle Act) (1940), amended in 1962, was originally implemented for the protection of bald eagles (Haliaeetus leucocephalus). In 1962, Congress amended the Eagle Act to cover golden eagles (Aquila chrysaetos), a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. This act makes it illegal to import, export, take (molest or disturb), sell, purchase, or barter any bald eagle or golden eagle or part thereof. The golden eagle, however, is accorded somewhat lighter protection under the Eagle Act than that of the bald eagle.

### *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) of 1918 implements international treaties between the United States and other nations created to protect migratory birds, any of their parts, eggs, and nests from activities, such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code (CFGC).

### *Executive Orders (EO)*

*Invasive Species – EO 13112 (1999)*: Issued on February 3, 1999, promotes the prevention and introduction of invasive species and provides for their control and minimizes the economic, ecological, and human health impacts that invasive species cause through the creation of the Invasive Species Council and Invasive Species Management Plan.

*Migratory Bird – EO 13186 (2001)*: Issued on January 10, 2001, promotes the conservation of migratory birds and their habitats and directs federal agencies to implement the Migratory Bird Treaty Act. Protection and Enhancement of Environmental Quality – EO 11514 (1970a), issued on March 5, 1970, supports the purpose and policies of the National Environmental Policy Act (NEPA) and directs federal agencies to take measures to meet national environmental goals.

### *Migratory Bird Treaty Reform Act*

The Migratory Bird Treaty Reform Act (Division E, Title I, Section 143 of the Consolidated Appropriations Act, 2005, PL 108–447) amends the Migratory Bird Treaty Act (16 U.S.C. Sections 703 to 712) such that nonnative birds or birds that have been introduced by humans to the United States or its territories are excluded from protection under the Act. It defines a native migratory bird as a species present in the United States and its territories as a result of natural biological or ecological processes. This list excluded two additional species commonly observed in the United States, the rock pigeon (Columba livia) and domestic goose (Anser domesticus).

### *Birds of Conservation Concern*

Birds of Conservation Concern (BCC) is a USFWS list of bird species identified to have the highest conservation priority, and with the potential for becoming candidates for listing as federally threatened or endangered. The chief legal authority for BCC is the Fish and Wildlife Conservation Act of 1980 (FWCA). Other authorities include the FESA, the Fish and Wildlife Act of 1956, and the Department of the Interior U.S Code (16 U.S.C. § 701). The 1988 amendment to the FWCA (Public Law 100-653, Title VIII) requires the Secretary of the Interior, through the USFWS, to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973” (USFWS, 2008a).

## State Regulations

### *California Fish and Game Code Sections 1600 through 1607 of the CFGC*

This section requires that a Streambed Alteration Application be submitted to the CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the Department and the applicant is the Streambed Alteration Agreement. Often, Projects that require a Streambed Alteration Agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Streambed Alteration Agreement may overlap.

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

The Porter-Cologne Act is the principal law governing water quality in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. Unlike the federal CWA, Porter-Cologne applies to both surface water and ground water. Porter-Cologne designated the State Water Resources Control Board (State Board) as the statewide water quality planning agency, and also gave authority to the RWQCB. Beyond establishment of a state framework, this act has been revised to comply with the federal CWA.

The State Board is responsible for developing statewide water quality plans (e.g., Ocean Plan, Inland Surface Waters Plan), while the RWQCB is responsible for developing Regional Water Quality Plans (basin plans). The basin plans in turn are approved by the State Board and EPA. Amendments to basin plans, such as Total Maximum Daily Loads (TMDLs), must also be approved by the Office of Administrative Law. These plans, both statewide and basin, include the identification of beneficial uses, water quality objectives, and implementation plans. The RWQCB has the primary responsibility for implementing the provisions in both statewide and basin plans.

### *California Endangered Species Act*

The California Endangered Species Act (CESA) (Sections 2050 to 2085) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats by protecting “all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation.” Animal species are listed by the CDFW as threatened or endangered, and plants are listed as rare, threatened, or endangered. However, only those plant species listed as threatened or endangered receive protection under the California ESA.

CESA mandates that state agencies do not approve a Project that would jeopardize the continued existence of these species if reasonable and prudent alternatives are available that would avoid a jeopardy finding. There are no state agency consultation procedures under the California ESA. For Projects that would affect a species that is federally and state listed, compliance with ESA satisfies the California ESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with the CESA under Section 2080.1. For Projects that would result in take of a species that is state listed only, the Project sponsor must apply for a take permit, in accordance with Section 2081(b).

### *Fully Protected Species*

Four sections of the California Fish and Game Code (CFGC) list 37 fully protected species (CFGC Sections 3511, 4700, 5050, and 5515). These sections prohibit take or possession "at any time" of the species listed, with few exceptions, and state that "no provision of this code or any other law will be construed to authorize the issuance of permits or licenses to ‘take’ the species,” and that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession.

### *Bird Nesting Protections*

Nesting bird protections (Sections 3503, 3503.5, 3511, 3513 and 3800) in the CFGC include the following:

- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 prohibits the take, possession, or needless destruction of any nests, eggs, or birds in the orders Falconiformes (new world vultures, hawks, eagles, ospreys, and falcons, among others), and Strigiformes (owls).
- Section 3511 prohibits the take or possession of Fully protected birds.
- Section 3513 prohibits the take or possession of any migratory nongame bird or part thereof, as designated in the MBTA. To avoid violation of the take provisions, it is generally required that Project-related disturbance at active nesting territories be reduced or eliminated during the nesting cycle.
- Section 3800 prohibits the take of any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).

### *Native Plant Protection Act*

The Native Plant Protect Act (NPPA) (1977) (CFGC Sections 1900-1913) was created with the intent to “preserve, protect, and enhance rare and endangered plants in this State.” The NPPA is

administered by CDFW. The Fish and Game Commission has the authority to designate native plants as endangered or rare and to protect endangered and rare plants from take. CESA (CFGC 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.

# Appendix E. USFWS IPaC, CNDDB, and CNPSEI Species Lists

# 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

Kern 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.

---

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:

## Mammals

| NAME | STATUS |
|---|---|
| San Joaquin kit fox  Vulpes macrotis mutica<br>Wherever found<br>No critical habitat has been designated for this species.<br>https://ecos.fws.gov/ecp/species/2873 | Endangered |

## Birds

| NAME | STATUS |
|---|---|
| California condor  Gymnogyps californianus<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>https://ecos.fws.gov/ecp/species/8193 | Endangered |
| Southwestern willow flycatcher  Empidonax traillii extimus<br>Wherever found<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>https://ecos.fws.gov/ecp/species/6749 | Endangered |

# Reptiles

| NAME | STATUS |
| --- | --- |
| Northwestern Pond Turtle  Actinemys marmorata<br>Wherever found<br>No critical habitat has been designated for this species.<br>https://ecos.fws.gov/ecp/species/1111 | Proposed Threatened |

# Insects

| NAME | STATUS |
| --- | --- |
| Monarch butterfly  Danaus plexippus<br>Wherever found<br>There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.<br>https://ecos.fws.gov/ecp/species/9743 | Proposed Threatened |

# 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.

You are still required to determine if your project(s) may have effects on all above listed species.

# Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

**Measures for Proactively Minimizing Eagle Impacts**
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

**Ensure Your Eagle List is Accurate and Complete**
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

**Review the FAQs**
The FAQs below provide important additional information and resources.

| NAME | BREEDING SEASON |
|---|---|
| Bald Eagle  Haliaeetus leucocephalus<br>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. | Breeds Jan 1 to Aug 31 |
| Golden Eagle  Aquila chrysaetos<br>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.<br>https://ecos.fws.gov/ecp/species/1680 | Breeds Jan 1 to Aug 31 |

# 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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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.

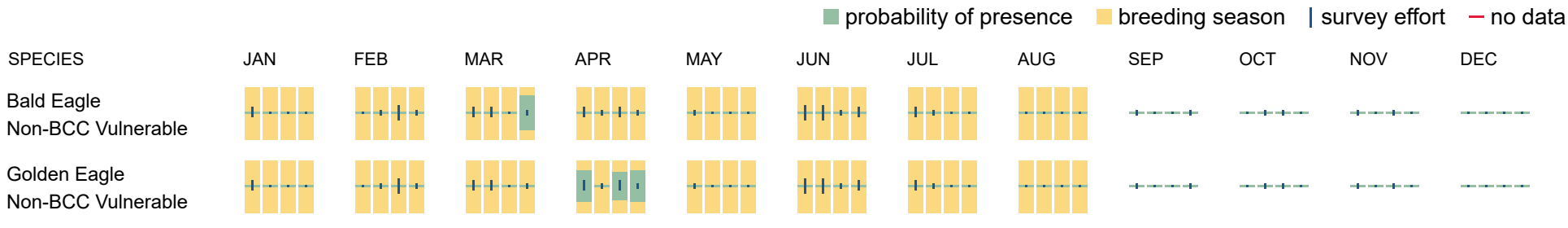
**Breeding Season** (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**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.



# Bald & Golden Eagles FAQs

**What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?**

The potential for eagle presence 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 an eagle (Bald and Golden Eagle Protection Act requirements may apply).

**Proper interpretation and use of your eagle report**
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

**How do I know if eagles are breeding, wintering, or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), 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.

**Interpreting the Probability of Presence Graphs**

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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.

**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.

**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.

# Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

**Measures for Proactively Minimizing Migratory Bird Impacts**

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

**Ensure Your Migratory Bird List is Accurate and Complete**

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

**Review the FAQs**

The FAQs below provide important additional information and resources.

| NAME | BREEDING SEASON |
|---|---|
| Bald Eagle  Haliaeetus leucocephalus<br>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. | Breeds Jan 1 to Aug 31 |
| Belding's Savannah Sparrow  Passerculus sandwichensis beldingi<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br>https://ecos.fws.gov/ecp/species/8 | Breeds Apr 1 to Aug 15 |
| Black-chinned Sparrow  Spizella atrogularis<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9447 | Breeds Apr 15 to Jul 31 |
| Bullock's Oriole  Icterus bullockii<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Mar 21 to Jul 25 |
| California Gull  Larus californicus<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 1 to Jul 31 |
| California Thrasher  Toxostoma redivivum<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Jan 1 to Jul 31 |
| Cassin's Finch  Haemorhous cassinii<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9462 | Breeds May 15 to Jul 15 |
| Common Yellowthroat  Geothlypis trichas sinuosa<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br>https://ecos.fws.gov/ecp/species/2084 | Breeds May 20 to Jul 31 |
| Golden Eagle  Aquila chrysaetos<br>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.<br>https://ecos.fws.gov/ecp/species/1680 | Breeds Jan 1 to Aug 31 |
| Lawrence's Goldfinch  Spinus lawrencei<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9464 | Breeds Mar 20 to Sep 20 |

Nuttall's Woodpecker  Dryobates 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

Santa Barbara Song Sparrow  Melospiza melodia graminea — Breeds Mar 1 to Sep 5

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/5513

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

White-headed Woodpecker  Dryobates albolarvatus gravirostris — Breeds May 1 to Aug 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Wrentit  Chamaea fasciata — Breeds Mar 15 to Aug 10

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

# 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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "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.

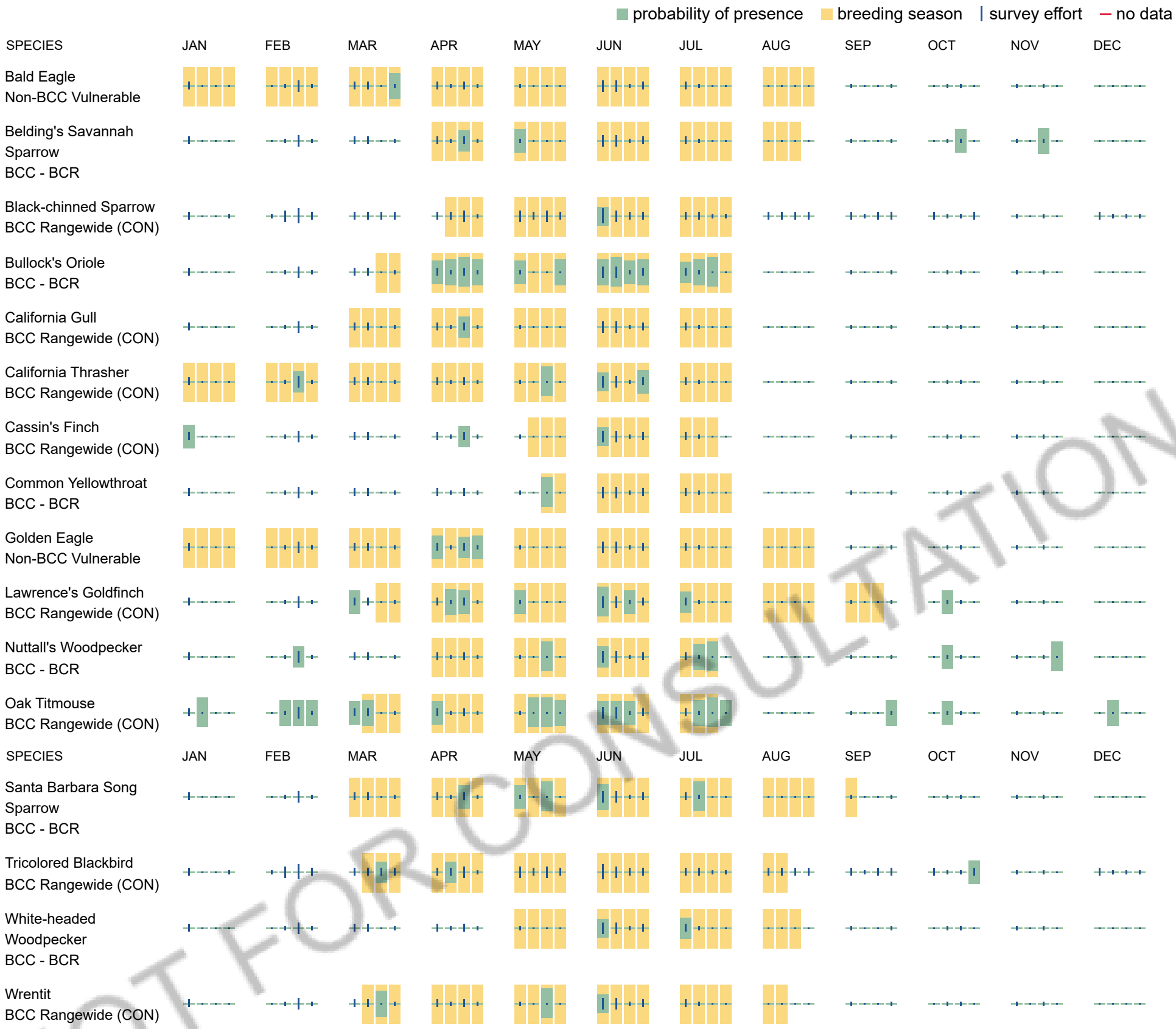
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

**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.






## Migratory Bird FAQs

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

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed 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 list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

**Why are subspecies showing up on my list?**

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

**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 to 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, or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), 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 Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

**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.

**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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

**Interpreting the Probability of Presence Graphs**
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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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.

**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.

**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.

# 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 (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

**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.

# Selected Elements by Scientific Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Frazier Mtn. (3411878) OR Cuddy Valley (3411971))

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Acanthoscyphus parishii var. abramsii*** Abrams' oxytheca | PDPGN0J041 | None | None | G4?T1T2 | S1S2 | 1B.2 |
| ***Actinemys marmorata*** northwestern pond turtle | ARAAD02031 | Proposed Threatened | None | G2 | SNR | SSC |
| ***Allium howellii var. clokeyi*** Mt. Pinos onion | PMLIL02161 | None | None | G3G4T2 | S2 | 1B.3 |
| ***Anniella spp.*** California legless lizard | ARACC01070 | None | None | G3G4 | S3S4 | SSC |
| ***Antrozous pallidus*** pallid bat | AMACC10010 | None | None | G4 | S3 | SSC |
| ***Arizona elegans occidentalis*** California glossy snake | ARADB01017 | None | None | G5T2 | S2 | SSC |
| ***Astragalus hornii var. hornii*** Horn's milk-vetch | PDFAB0F421 | None | None | GUT1 | S1 | 1B.1 |
| ***Astur cooperii*** Cooper's hawk | ABNKC12040 | None | None | G5 | S4 | WL |
| ***Batrachoseps stebbinsi*** Tehachapi slender salamander | AAAAD02090 | None | Threatened | G2G3 | S2 | |
| ***Bombus caliginosus*** obscure bumble bee | IIHYM24380 | None | None | G2G3 | S1S2 | |
| ***Bombus crotchii*** Crotch's bumble bee | IIHYM24480 | None | Candidate Endangered | G2 | S2 | |
| ***Calochortus palmeri var. palmeri*** Palmer's mariposa-lily | PMLIL0D122 | None | None | G3T2 | S2 | 1B.2 |
| ***Caulanthus lemmonii*** Lemmon's jewelflower | PDBRA0M0E0 | None | None | G3 | S3 | 1B.2 |
| ***Charina bottae umbratica*** southern rubber boa | ARADA01011 | None | Threatened | G4T2 | S2 | |
| ***Corynorhinus townsendii*** Townsend's big-eared bat | AMACC08010 | None | None | G4 | S2 | SSC |
| ***Dendragapus fuliginosus howardi*** Mount Pinos sooty grouse | ABNLC09022 | None | None | G5T2T3 | S3 | SSC |
| ***Ensatina eschscholtzii croceater*** yellow-blotched salamander | AAAAD04011 | None | None | G5T3 | S3 | WL |
| ***Eriophyllum lanatum var. hallii*** Fort Tejon woolly sunflower | PDAST3N058 | None | None | G5T1 | S1 | 1B.1 |
| ***Eschscholzia lemmonii ssp. kernensis*** Tejon poppy | PDPAP0A071 | None | None | G4T2 | S2 | 1B.1 |
| ***Helminthoglypta uvasana*** Grapevine shoulderband | IMGASC2650 | None | None | G1 | S1 | |

# Selected Elements by Scientific Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Layia heterotricha*** pale-yellow layia | PDAST5N070 | None | None | G2 | S2 | 1B.1 |
| ***Monardella linoides ssp. oblonga*** Tehachapi monardella | PDLAM180D2 | None | None | G5T2 | S2 | 1B.3 |
| ***Myotis ciliolabrum*** western small-footed myotis | AMACC01230 | None | None | G5 | S3 | |
| ***Myotis thysanodes*** fringed myotis | AMACC01090 | None | None | G4 | S3 | |
| ***Myotis volans*** long-legged myotis | AMACC01110 | None | None | G4G5 | S3 | |
| ***Myotis yumanensis*** Yuma myotis | AMACC01020 | None | None | G5 | S4 | |
| ***Navarretia peninsularis*** Baja navarretia | PDPLM0C0L0 | None | None | G3 | S2 | 1B.2 |
| ***Navarretia setiloba*** Piute Mountains navarretia | PDPLM0C0S0 | None | None | G2 | S2 | 1B.1 |
| ***Nemacladus secundiflorus var. robbinsii*** Robbins' nemacladus | PDCAM0F0B2 | None | None | G3T2 | S2 | 1B.2 |
| ***Neotamias speciosus callipeplus*** Mount Pinos chipmunk | AMAFB02171 | None | None | G4T2 | S2 | |
| ***Perognathus alticolus inexpectatus*** Tehachapi pocket mouse | AMAFD01082 | None | None | G2T1T2 | S1S2 | SSC |
| ***Phrynosoma blainvillii*** coast horned lizard | ARACF12100 | None | None | G4 | S4 | SSC |
| ***Plebulina emigdionis*** San Emigdio blue butterfly | IILEPG7010 | None | None | G1G2 | S1S2 | |
| ***Pyrgulopsis greggi*** Kern River pyrg | IMGASJ0A10 | None | None | G1 | S1 | |
| ***Sidalcea neomexicana*** salt spring checkerbloom | PDMAL110J0 | None | None | G4 | S2 | 2B.2 |
| ***Symphyotrichum defoliatum*** San Bernardino aster | PDASTE80C0 | None | None | G2 | S2 | 1B.2 |
| ***Taxidea taxus*** American badger | AMAJF04010 | None | None | G5 | S3 | SSC |
| ***Valley Needlegrass Grassland*** Valley Needlegrass Grassland | CTT42110CA | None | None | G3 | S3.1 | |
| ***Valley Oak Woodland*** Valley Oak Woodland | CTT71130CA | None | None | G3 | S2.1 | |
| ***Viola pinetorum ssp. grisea*** grey-leaved violet | PDVIO04431 | None | None | G4G5T3? | S3 | 1B.2 |
| ***Wildflower Field*** Wildflower Field | CTT42300CA | None | None | G2 | S2.2 | |

**Record Count: 41**

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

## Search Results

27 matches found. Click on scientific name for details

Search Criteria: , Quad is one of [3411878:3411971]

| ▲ SCIENTIFIC NAME | COMMON NAME | FED LIST | STATE LIST | GLOBAL RANK | STATE RANK | CA RARE PLANT RANK |
|---|---|---|---|---|---|---|
| *Acanthomintha obovata* ssp. *cordata* | heart-leaved thorn-mint | None | None | G4T3 | S3 | 4.2 |
| *Acanthoscyphus parishii* var. *abramsii* | Abrams' oxytheca | None | None | G4?T1T2 | S1S2 | 1B.2 |
| *Allium howellii* var. *clokeyi* | Mt. Pinos onion | None | None | G3G4T2 | S2 | 1B.3 |
| *Astragalus hornii* var. *hornii* | Horn's milk-vetch | None | None | GUT1 | S1 | 1B.1 |
| *Calochortus palmeri* var. *palmeri* | Palmer's mariposa-lily | None | None | G3T2 | S2 | 1B.2 |
| *Caulanthus lemmonii* | Lemmon's jewelflower | None | None | G3 | S3 | 1B.2 |
| *Delphinium inopinum* | unexpected larkspur | None | None | G3 | S3 | 4.3 |
| *Delphinium parryi* ssp. *purpureum* | Mt. Pinos larkspur | None | None | G4T4 | S4 | 4.3 |
| *Eriophyllum lanatum* var. *hallii* | Fort Tejon woolly sunflower | None | None | G5T1 | S1 | 1B.1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Eschscholzia lemmonii* ssp. *kernensis* | Tejon poppy | None | None | G4T2 | S2 | 1B.1 |
| *Frasera neglecta* | pine green-gentian | None | None | G4 | S4 | 4.3 |
| *Gilia interior* | inland gilia | None | None | G4 | S4 | 4.3 |
| *Gilia latiflora* ssp. *cuyamensis* | Cuyama gilia | None | None | G5?T4 | S4 | 4.3 |
| *Gilia leptantha* ssp. *pinetorum* | pine gilia | None | None | G4T4 | S4 | 4.3 |
| *Hulsea vestita* ssp. *gabrielensis* | San Gabriel Mountains sunflower | None | None | G5T3 | S3 | 4.3 |
| *Iris longipetala* | coast iris | None | None | G3 | S3 | 4.2 |
| *Layia heterotricha* | pale-yellow layia | None | None | G2 | S2 | 1B.1 |
| *Lessingia tenuis* | spring lessingia | None | None | G4 | S4 | 4.3 |
| *Monardella linoides* ssp. *oblonga* | Tehachapi monardella | None | None | G5T2 | S2 | 1B.3 |
| *Navarretia peninsularis* | Baja navarretia | None | None | G3 | S2 | 1B.2 |
| *Navarretia setiloba* | Piute Mountains navarretia | None | None | G2 | S2 | 1B.1 |
| *Nemacladus secundiflorus* var. *robbinsii* | Robbins' nemacladus | None | None | G3T2 | S2 | 1B.2 |
| *Perideridia pringlei* | adobe yampah | None | None | G4 | S4 | 4.3 |
| *Phacelia exilis* | Transverse Range phacelia | None | None | G4Q | S4 | 4.3 |
| *Sidalcea neomexicana* | salt spring checkerbloom | None | None | G4 | S2 | 2B.2 |
| *Symphyotrichum defoliatum* | San Bernardino aster | None | None | G2 | S2 | 1B.2 |
| *Viola pinetorum* ssp. *grisea* | grey-leaved violet | None | None | G4G5T3? | S3 | 1B.2 |

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