



Biological Resource Evaluation

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Madera Granite Hills Precise Plan Project

Madera County, CA

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Executive Summary

The project applicant is seeking approval of a master planned community development immediately west of the City of Madera limits in Madera County, California. The proposed master planned community development project (Project) will involve pre-zoning, a General Plan amendment, Tentative and Final Tract Maps, a Master Plan, Precise Plan, and annexation into the City of Madera on approximately 199 acres that currently support a vineyard and an orchard.

To evaluate whether the Project may affect biological resources under California Environmental Quality Act (CEQA) purview, we (1) obtained lists of special-status species from the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and the California Native Plant Society; (2) reviewed other relevant background information such as satellite imagery and topographic maps; and (3) conducted a field reconnaissance survey at the Project site.

This biological resource evaluation summarizes (1) existing biological conditions on the Project site, (2) the potential for special-status species and regulated habitats to occur on or near the Project site, (3) the potential impacts of the proposed Project on biological resources and regulated habitats, and (4) measures to reduce those potential impacts to less-than-significant levels under CEQA.

We concluded the Project could affect the state candidate for listing at threatened or endangered burrowing owl (*Athene cunicularia*) and nesting migratory birds. However, effects can be reduced to less-than-significant levels with mitigation.



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Abbreviations

Abbreviation	Definition
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
FE	Federally listed as Endangered
FESA	Federal Endangered Species Act
FP	State Fully Protected
FPT	Federally Proposed as Threatened
FT	Federally listed as Threatened
MBTA	Migratory Bird Treaty Act
NRCS	Natural Resources Conservation Service
SC	State Candidate for listing under the CESA
SE	State listed as Endangered
SSSC	State Species of Special Concern
ST	State listed as Threatened
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey



1.0 Introduction

1.1 Background

The project applicant is seeking approval of a master planned community development (the Project) on approximately 199 acres immediately west of the City of Madera limits in Madera County, California. The Project site currently supports an almond orchard and a vineyard.

The purpose of this biological resource evaluation is to assess whether the Project will affect protected biological resources pursuant to California Environmental Quality Act (CEQA) guidelines. Such resources include species of plants or animals listed or proposed for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, and various other sections of California Fish and Game Code (CFGF). This biological resource evaluation also addresses Project-related impacts to regulated habitats, which are those under the jurisdiction of the United States Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), or California Department of Fish and Wildlife (CDFW).

1.2 Project Description

The proposed Project will involve a master planned community development on approximately 199 acres. The Project will include pre-zoning, a General Plan amendment, Tentative and Final Tract Maps, a Master Plan, Precise Plan, and annexation into the City of Madera.

1.3 Project Location

The approximately 199-acre Project site is north of Avenue 14 ½ between Road 23 and Road 24 and south of the Fresno River, immediately west of the City of Madera limits in Madera County, California (Figures 1 and 2).

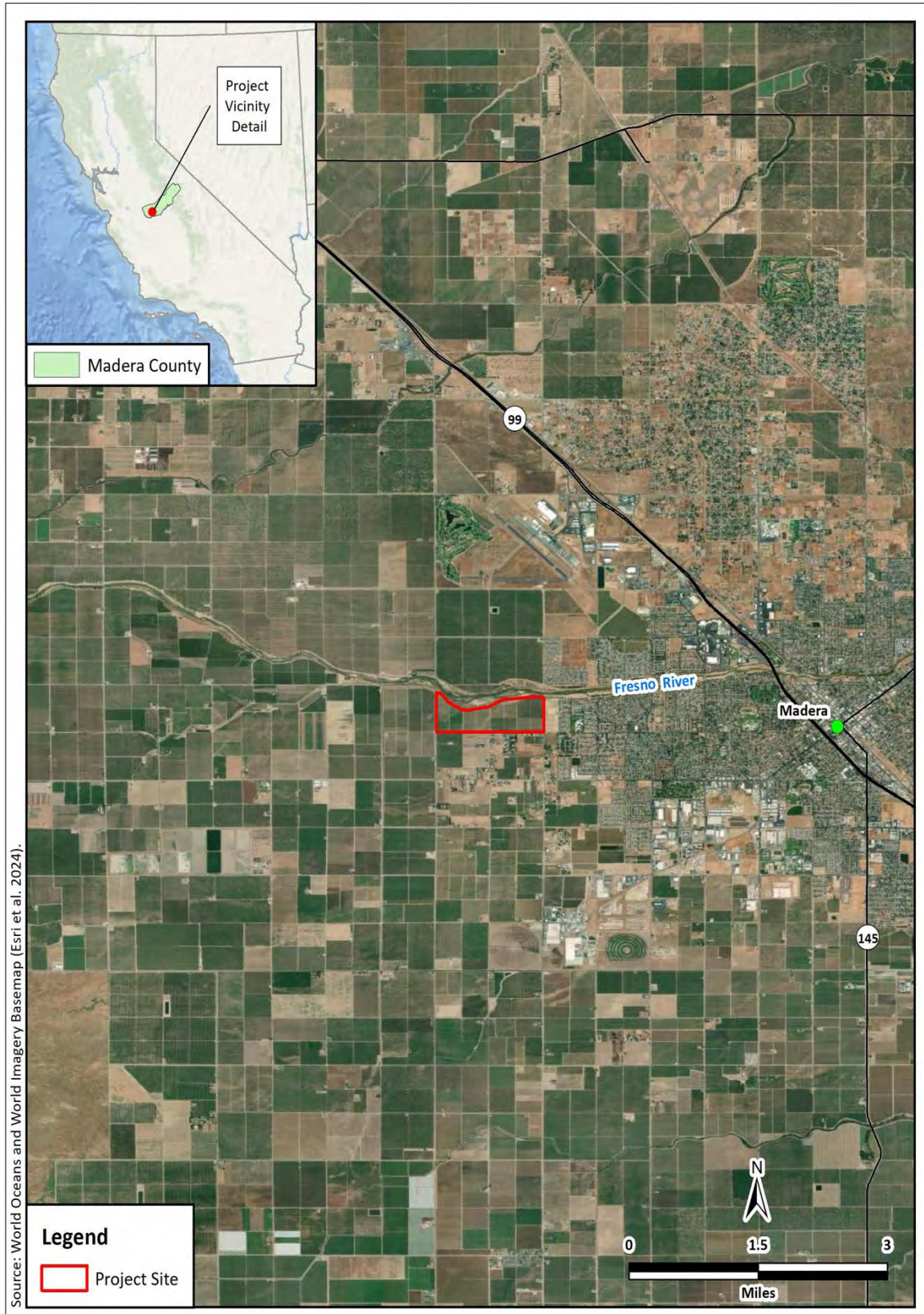


Figure 1. Project site vicinity map.

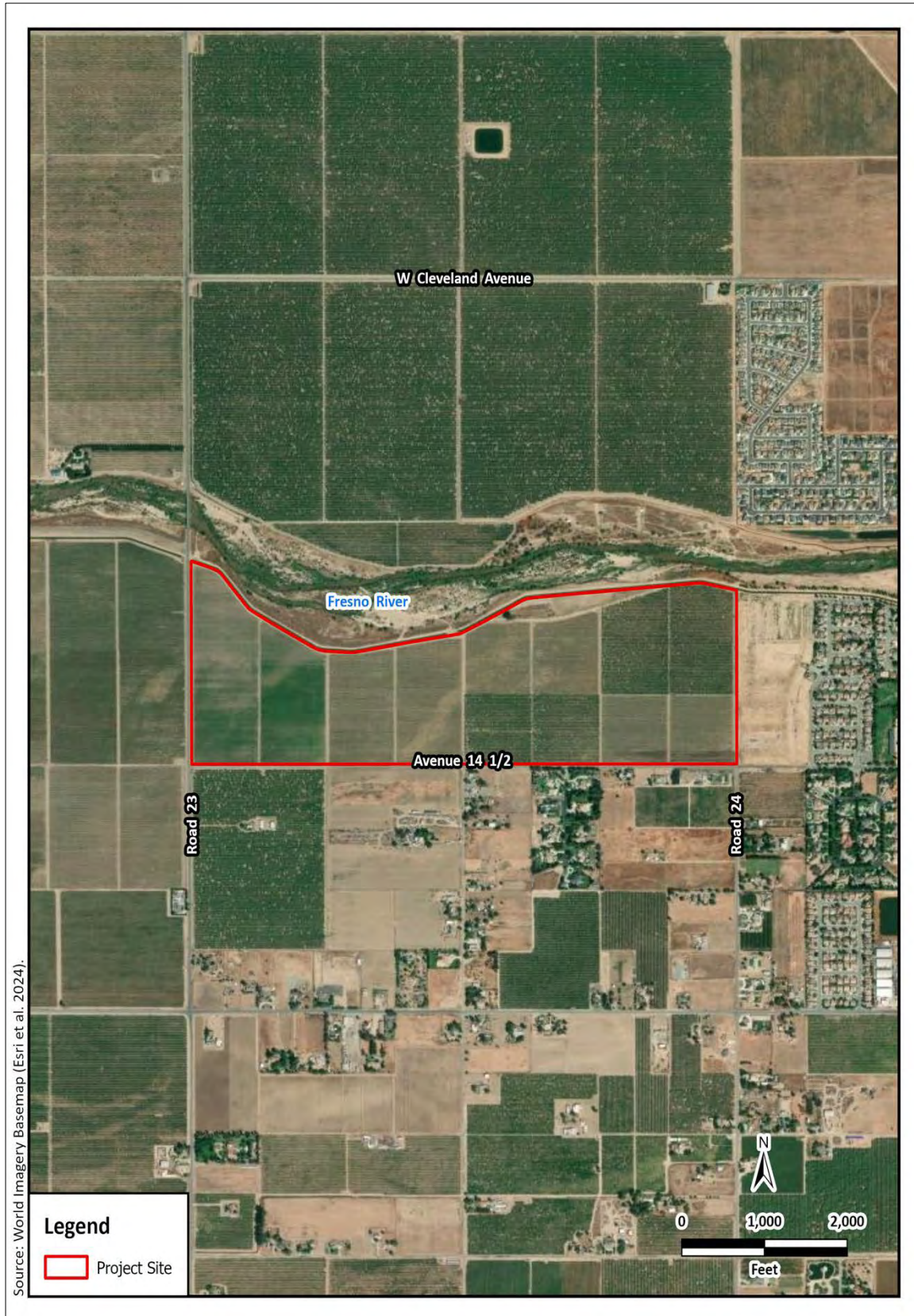


Figure 2. Project site map.



1.4 Regulatory Framework

The relevant regulatory requirements and policies that guide the impact analysis of the Project are summarized below.

1.4.1 State Requirements

California Department of Fish and Wildlife Jurisdiction. The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed may require that the project applicant enter into a Lake and Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code [CFGF] Section 1602.

California Endangered Species Act. The CESA of 1970 (CFGF Section 2050 et seq. and California Code of Regulations (CCR) Title 14, Subsections 670.2 and 670.51) prohibits the take of species listed under CESA (14 CCR Subsections 670.2 and 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the CDFW when preparing CEQA documents. Consultation ensures that proposed projects or actions do not adversely affect state listed species. During consultation, CDFW determines whether take would occur and identifies “reasonable and prudent alternatives” for the project and conservation of special-status species. CDFW can authorize take of state listed species under Sections 2080.1 and 2081(b) of the CFGF in those cases where it is demonstrated the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (CFGF Section 2070). CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

California Environmental Quality Act. The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted



during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2024). Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the CFGC dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the United States Fish and Wildlife Service (USFWS) or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

California Native Plant Protection Act. The California Native Plant Protection Act of 1977 (CFGF Sections 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting birds. CFGC Sections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. CFGC Section 3511 lists birds that are “Fully Protected” as those that may not be taken or possessed except under specific permit.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et. sec.) was established in 1969 and entrusts the SWRCB and nine Regional Water Quality Control Boards (collectively Water Boards) with the responsibility to preserve and enhance all



beneficial uses of California's diverse waters. The Act grants the Water Boards authority to establish water quality objectives and regulate point- and nonpoint-source pollution discharge to the state's surface and ground waters. Under the auspices of the United States Environmental Protection Agency, the Water Boards are responsible for certifying, under Section 401 of the federal Clean Water Act, that activities affecting waters of the United States comply with California water quality standards. The Porter-Cologne Water Quality Control Act addresses all "waters of the State," which are more broadly defined than waters of the United States. Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. They include artificial as well as natural water bodies and federally jurisdictional and federally non-jurisdictional waters. The Water Boards may issue a Waste Discharge Requirement permit for projects that will affect only federally non-jurisdictional waters of the State.

1.4.2 Federal Requirements

Federal Endangered Species Act. The USFWS and the National Oceanographic and Atmospheric Administration's National Marine Fisheries Service enforce the provisions stipulated in the FESA of 1973 (FESA, 16 United States Code [USC] Section 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the proposed action area and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC Section 1536[3], [4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Migratory Bird Treaty Act. The federal MBTA (16 USC Section 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. "Take" is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC Section 703 and Section 715n).



This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an “active nest.” However, the “Migratory Bird Permit Memorandum” issued by the USFWS in 2003 and updated in 2018 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction (USFWS 2018).

United States Army Corps of Engineers Jurisdiction. Areas meeting the regulatory definition of “waters of the United States” (jurisdictional waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, the territorial seas, all interstate waters, all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States that are relatively permanent, standing, or continuously flowing bodies of water, and relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to waters of the United States (33 CFR part 328.3). Waters of the United States do not include prior converted cropland, waste treatment systems, ditches, artificially irrigated areas, artificial lakes or ponds, artificial reflecting pools or swimming pools, waterfilled depressions, and swales and erosional features. Under the 2006 Supreme Court ruling *Rapanos v. United States*, waters of the United States include non-navigable tributaries of traditional navigable waters that are relatively permanent. The 2023 Supreme Court ruling *Sackett v. Environmental Protection Agency* removed the significant nexus standard for tributaries and adjacent waters of the United States and requires tributaries and adjacent waters to have a continuous surface connection to a water of the United States. Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual and related Regional Supplement* (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board is the state agency, together with the Regional Water Quality Control Boards, charged with implementing water quality certification in California.



2.0 Methods

2.1 Desktop Review

As a framework for the evaluation and reconnaissance survey, we obtained a USFWS species list for the Project (USFWS 2024a, Appendix A). In addition, we searched the California Natural Diversity Database (CNDDDB, CDFW 2024, Appendix B) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2024, Appendix C) for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using CNDDDB and CNPS database searches confined to the Madera 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Berenda, Biola, Bonita Ranch, Daulton, Gravelly Ford, Gregg, Herndon, and Kismet). A local list of special-status species was compiled using CNDDDB records from within 5 miles of the Project site. Species that lacked a CEQA-recognized special-status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. We also reviewed aerial imagery from Google Earth (Google 2024) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2024), the National Wetlands Inventory (USFWS 2024b), and relevant literature.

2.2 Reconnaissance Survey

Colibri Senior Scientist Amy Hernandez and Staff Scientist Brandon Dunnahoo conducted a field reconnaissance survey at the Project site on 17 December 2024. The Project site and a 50-foot buffer (Figure 3) surrounding the Project site were walked and thoroughly inspected to evaluate and document the potential for the area to support state or federally protected resources. All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters as defined by the USACE, CDFW, and under the Porter-Cologne Water Quality Control Act. An additional buffer of 0.5 miles around the Project site was inspected for potential nesting habitat for special-status raptors. The 0.5-mile buffer was surveyed by driving public roads and identifying the presence of large trees or other potentially suitable substrates for nesting raptors as well as open areas that could provide foraging habitat.



2.3 Significance Criteria

CEQA defines “significant effect on the environment” as “a substantial, or potentially substantial, adverse change in the environment” (California Public Resource Code § 21068). Under CEQA Guidelines Section 15065, a Project’s effects on biological resources are deemed significant where the Project would do the following:

- a) Substantially reduce the habitat of a fish or wildlife species,
- b) Cause a fish or wildlife population to drop below self-sustaining levels,
- c) Threaten to eliminate a plant or animal community, or
- d) Substantially reduce the number or restrict the range of a rare or endangered plant or animal.

In addition to the Section 15065 criteria, Appendix E within the CEQA Guidelines includes six additional impacts to consider when analyzing the effects of a project. Under Appendix E, a project’s effects on biological resources are deemed significant where the project would do any of the following:

- e) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- f) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;
- g) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- h) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- j) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These criteria were used to determine whether the potential effects of the Project on biological resources qualify as significant.



Figure 3. Reconnaissance survey area map.



3.0 Results

3.1 Desktop Review

The USFWS species list for the Project included 10 species listed as threatened, endangered, or proposed for listing under the FESA (USFWS 2024a, Table 1, Appendix A). None of those species could occur on or near the Project site due to the lack of habitat or because the Project site is outside the known range of the species (Table 1). As stated in the species list, the Project site occurs outside any proposed or designated USFWS critical habitat (USFWS 2024a, Appendix A).

Searching the CNDDDB for records of special-status species from the Madera 7.5-minute USGS topographic quadrangle and the eight surrounding quadrangles produced 225 records of 34 species (Table 1, Appendix B) and two sensitive natural communities. Of the 34 species, five were not considered further because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California (Appendix B). Of the remaining 29 species, nine are known from within 5 miles of the Project site (Table 1, Figure 4). Of those species, only the state candidate for listing as threatened burrowing owl (*Athene cunicularia*) could occur on or near the Project site (Table 1). None of the other species nor the sensitive natural communities identified in the nine-quad search could occur on or near the Project site (Table 1) due to the lack of habitat.

Searching the CNPS inventory of rare and endangered plants of California yielded 17 species (CNPS 2024, Appendix C), 16 of which have a CRPR of 1 or 2 and four of which are also state or federally listed (Table 1). Of those 16 plant species, none could occur on or near the Project site due to the lack of habitat (Table 1).

The Project site is underlain by Hanford fine sandy loam, 0 to 1 percent slopes (34.7%); Pachappa fine sandy loam, 0 to 1 percent slopes (28%); Grangeville fine sandy loam, slightly saline-alkali, 0 to 1 percent slopes (10.5%); Delhi sand, 3 to 8 percent slopes, MLRA 17 (8.1%); Tujunga loamy sand, 0 to 3 percent slopes (4.6%); Hanford sandy loam, moderately deep over sand, 0 to 3 percent slopes (4.4%); Hanford sandy loam, 0 to 3 percent slopes (2.4%); Delhi sand, 0 to 3 percent slopes, MLRA 17 (%); Traver loam, slightly saline-alkali, 0 to 1 percent slopes (1.8%); Grangeville fine sandy loam, 0 to 1 percent slopes, MLRA 17 (1.6%); Traver loam, moderately saline-sodic, 0 to 1 percent slopes (0.9%); and Riverwash



(0.8%) (NCRS 2024). The Project site has little topographic relief and is at an elevation of 238–250 feet above mean sea level (Google 2024).

**Table 1.** Special-status species, their listing status, habitats, and potential to occur on or near the Project site.

Species	Status ¹	Habitat	Potential to Occur ²
Federally and State-Listed Endangered or Threatened Species			
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE, SR, 1B.1	Vernal pools in open grasslands below 3445 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
Hairy Orcutt grass (<i>Orcuttia pilosa</i>)	FE, SE, 1B.1	Vernal pools below 650 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, SE, 1B.1	Vernal pools at or below 2700 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
Succulent owl's clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, SE, 1B.2	Vernal pools with heavy clay soils at or below 2500 feet elevation.	None. Habitat lacking; no vernal pools were in the survey area.
Monarch California overwintering population (<i>Danaus plexippus</i>)	FPT	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight, access to water and nectar, and protection from wind.	None. Habitat lacking; the Project site is not within 1.5 miles of the ocean.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Elderberry (<i>Sambucus</i> sp.) plants having basal stem diameter greater than 1" at ground level.	None. No elderberry shrubs were found in the survey area.



Species	Status ¹	Habitat	Potential to Occur ²
Vernal pool fairy shrimp ³ (<i>Branchinecta lynchi</i>)	FT	Vernal pools; some artificial depressions, ditches, stock ponds, vernal swales, ephemeral drainages, and seasonal wetlands.	None. Habitat lacking; no vernal pools or other suitable aquatic features were in the survey area; the canal north of the Project site is too frequently maintained and too frequently inundated to provide habitat for this species.
California tiger salamander ³ (<i>Ambystoma californiense</i>)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	None. Habitat lacking; an agricultural water storage pond was north of the Project site within the 1.24-mile dispersal distance of this species. According to historic Google Earth imagery (Google 2024), the agricultural storage pond is usually dry during the California tiger salamander breeding and larval period. Also, the Fresno River riparian area is a dispersal barrier to potential upland refugia on the Project site.
Western spadefoot ³ (<i>Spea hammondi</i>)	FPT; SSSC	Open areas with sandy or gravelly soil that allow rain pools to gather for breeding.	None. Habitat lacking; no vernal pool or other potential habitat was present in the survey area.
Blunt-nosed leopard lizard ³ (<i>Gambelia sila</i>)	FE, SE, FP	Upland scrub and sparsely vegetated grassland with small mammal burrows.	None. Habitat lacking; the Project site lacked grassland and upland scrub.



Species	Status ¹	Habitat	Potential to Occur ²
Northwestern pond turtle (<i>Actinemys marmorata</i>)	FPT, SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation. Basking sites and suitable upland areas for egg laying.	None. Habitat lacking; the canal north of the Project site is too frequently maintained to provide habitat for this species.
Burrowing owl ³ (<i>Athene cunicularia</i>)	SC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with ground squirrel burrows.	Low. The Project site contained numerous ground squirrel burrows. However, the Project site is routinely disturbed, and no sign was detected in the survey area during the 17 December 2024 reconnaissance survey.
Swainson's hawk ³ (<i>Buteo swainsoni</i>)	ST	Large trees for nesting with adjacent grasslands, alfalfa fields, or grain fields for foraging.	None. Habitat lacking; potential nest trees were within the 0.5-mile survey area; however, the surrounding land cover within the 0.5-mile survey area was dominated by incompatible orchards and residential development.
Tricolored blackbird (<i>Agelaius tricolor</i>)	ST, SSSC	Freshwater emergent wetlands, some agricultural fields, grassland, and silage fields near dairies.	None. Habitat lacking; the Project site lacked freshwater emergent wetlands, agricultural fields, grassland, and silage fields.
Fresno kangaroo rat ³ (<i>Dipodomys nitratooides exilis</i>)	FE, SE	Sandy, alkaline, saline, and clay-based soils in upland scrub and grassland.	None. Habitat lacking; the Project site is outside the current known range of this species.



Species	Status ¹	Habitat	Potential to Occur ²
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, ST	Grassland and upland scrub and fallowed agricultural lands adjacent to natural grasslands or upland scrub.	None. Habitat lacking; the Project site is outside the current known range of this species.
State Species of Special Concern			
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	SSSC	Open, generally sandy areas, washes, and flood plains in a variety of habitats.	None. Habitat lacking; no open, generally sandy areas, washes, or flood plains were present in the survey area.
American badger (<i>Taxidea taxus</i>)	SSSC	Variable. Open, dry areas with friable soils and small mammal populations in grassland, conifer forest, and desert.	None. Habitat lacking; the Project site lacked open, dry areas with friable soils and small mammal populations in grassland, conifer forest, or desert.
California Rare Plants			
Alkali sink goldfields (<i>Lasthenia chrysantha</i>)	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	None. No vernal pool or wet saline flat habitats were present in the survey area.
California alkali grass (<i>Puccinellia simplex</i>)	1B.2	Saline flats and mineral springs below 3000 feet elevation.	None. Habitat lacking; the survey area lacked saline flats and mineral springs.
Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>)	1B.2	Saline or alkaline soils in grassland, meadows and seeps, and chenopod scrub communities below 230 feet elevation.	None. Habitat lacking; the survey area lacked saline or alkaline soils in grassland, meadows and seeps, and chenopod scrub communities.



Species	Status ¹	Habitat	Potential to Occur ²
Lesser saltscale (<i>Atriplex minuscule</i>)	1B.1	Sandy, alkaline soils in chenopod scrub, playa, and grassland in the San Joaquin Valley below 328 feet elevation.	None. Habitat lacking; the survey area lacked sandy, alkaline soils in chenopod scrub, playa, or grassland.
Madera leptosiphon ³ (<i>Leptosiphon serrulatus</i>)	1B.2	Openings in chaparral, cismontane woodland, and low elevation conifer forest at 980–4300 feet elevation.	None. Habitat lacking; the Project site is below the known elevational range of this species.
Munz's tidy tips ³ (<i>Layia munzii</i>)	1B.2	Alkaline clay soils in chenopod scrub and valley and foothill grassland at 300–2100 feet elevation.	None. Habitat lacking; the Project site is below the known elevational range of this species.
Recurved larkspur (<i>Delphinium recurvatum</i>)	1B.2	Poorly drained, fine, alkaline soils in grassland and saltbush scrub at 98–1969 feet elevation.	None. Habitat lacking; the Project site lacked poorly drained, fine, alkaline soils in grassland.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	None. Habitat lacking; the canal north of the Project site is too frequently maintained to provide habitat for this species.
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	1B.2	Clay depressions in vernal pools at 490–3280 feet elevation.	None. No vernal pool habitat was present on the Project site.



Species	Status ¹	Habitat	Potential to Occur ²
Spiny-sepaed button-celery (<i>Eryngium spinosepalum</i>)	1B.2	Vernal pools, swales, and roadside ditches in valley and foothill grassland.	None. No vernal pool habitat was present on the Project site.
Subtle orache (<i>Atriplex subtilis</i>)	1B.2	Saline depressions below 230 feet elevation.	None. Habitat lacking; the Project site lacked saline depressions and is above the known elevational range of this species.
Vernal pool smallscale (<i>Atriplex persistens</i>)	1B.2	Alkaline vernal pools below 380 feet elevation.	None. Habitat lacking; the Project site lacked alkaline vernal pools.

CDFW (2024), CNPS (2024), USFWS (2024a).

Status ¹	Potential to Occur ²
FC = Federal Candidate for Listing	None: Species or sign not observed; conditions unsuitable for occurrence.
FE = Federally listed as Endangered	Low: Neither species nor sign observed; conditions marginal for occurrence.
FT = Federally listed as Threatened	Moderate: Neither species nor sign observed; conditions suitable for occurrence.
FPT = Federally Proposed Threatened	High: Neither species nor sign observed; conditions highly suitable for occurrence.
FP = State Fully Protected	Present: Species or sign observed; conditions suitable for occurrence.
SC = State Candidate for Listing	
SE = State listed as Endangered	
ST = State listed as Threatened	
SSSC = State Species of Special Concern	

CNPS California Rare Plant Rank ¹ :	Threat Ranks ¹ :
1B – plants rare, threatened, or endangered in California and elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).
3 – plants about which more information is needed.	0.3 – not very threatened in California (<20% of occurrences).



CNPS California Rare Plant Rank ¹ :	Threat Ranks ¹ :
4 – plants have limited distribution in California.	

³Record from within 5 miles of the Project site.

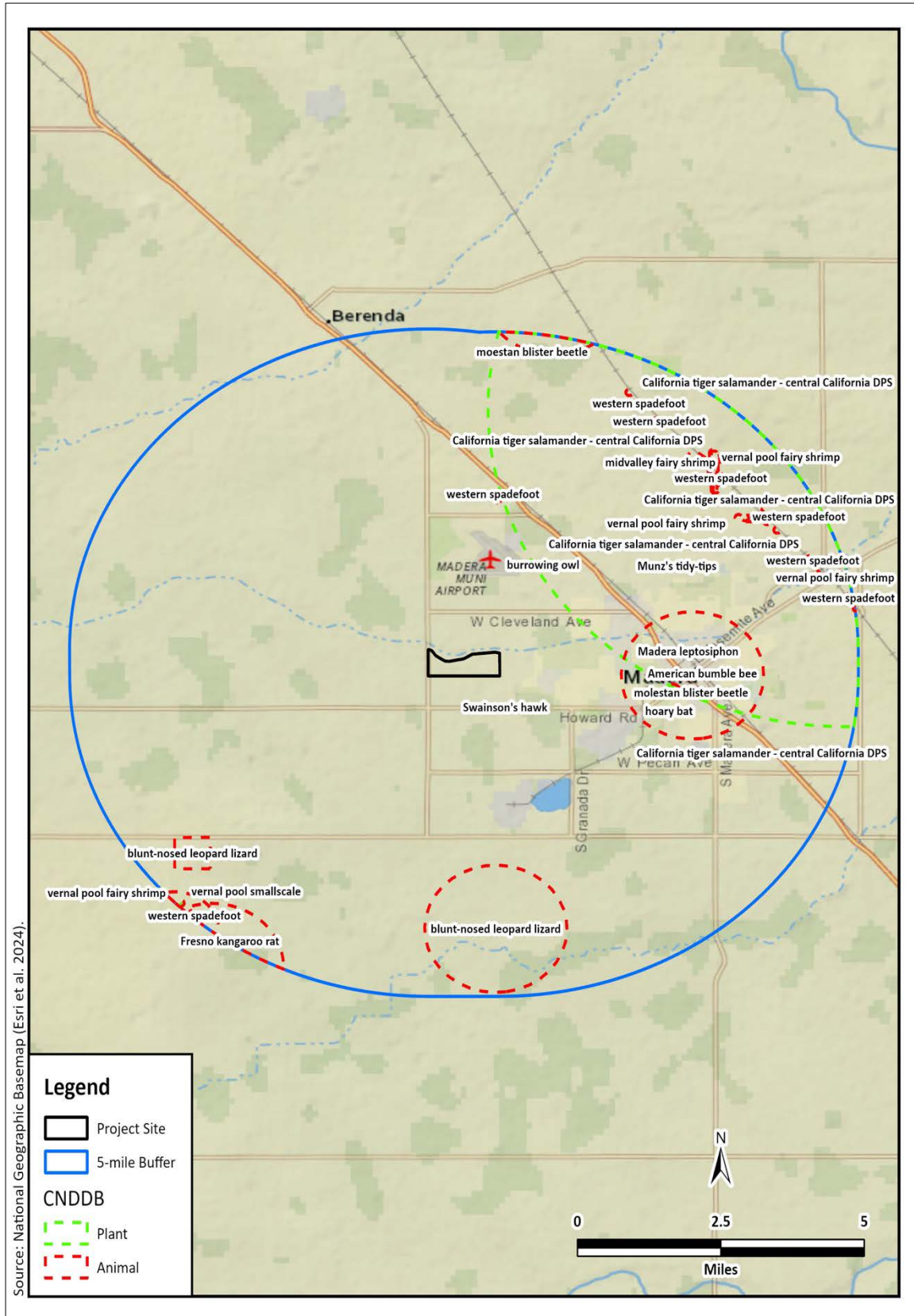


Figure 4. CNDDDB occurrence map.



3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site consisted of an irrigated, maintained almond orchard and vineyard and an area of disturbed land in the north-central portion (Figures 5–7). Ruderal herbaceous vegetation was distributed throughout the Project site. The disturbed area in the north-central portion of the Project site contained piles of tree limbs, a felled tree, and bricks and other debris (Figure 8). California ground squirrel (*Otospermophilus beecheyi*) and other small mammal burrows were present throughout the north-central and northeastern portions of the Project site and along the canal in the survey area (Figures 9 and 10).

The site was bordered by a Madera Irrigation District canal and the Fresno River to the north (Figure 11), rural residential development and idle agricultural lands to the south, an orchard to the west, and a residential development under construction to the east. Aerial imagery indicates the Project site has been used for agricultural production since at least 1985 (Google 2024).



Figure 5. Photograph from the north-central portion of the Project site, looking southwest, showing a vineyard and irrigation equipment.



Figure 6. Photograph from the southeast portion of the Project site, looking northwest, showing a vineyard and an almond orchard.



Figure 7. Photograph from the south-central portion of the Project site, looking northwest, showing a vineyard and an almond orchard.



Figure 8. Photograph of debris in the north-central portion of the Project site, looking southwest.



Figure 9. Photograph showing ground squirrel burrows along the canal in the north-central portion of the Project site, looking north.



Figure 10. Photograph showing ground squirrel burrows in the almond orchard in the northeastern portion of the Project site, looking southeast.



Figure 11. Photograph of a Madera Irrigation District canal and the Fresno River (top right) north of the Project site, looking northwest.



3.2.2 Plant and Animal Species Observed

A total of 26 plant species (nine native and 17 nonnative), 19 bird species, and two mammal species were observed during the survey (Table 2).

Table 2. Plant and animal species observed during the reconnaissance survey.

Common Name	Scientific Name	Status
Plants		
Family Amaranthaceae		
Pigweed amaranth	<i>Amaranthus albus</i>	Nonnative
Prostrate pigweed	<i>Amaranthus blitoides</i>	Native
Family Asteraceae		
Common sow thistle	<i>Sonchus oleraceus</i>	Nonnative
Canada horseweed	<i>Erigeron canadensis</i>	Native
Flax-leaved horseweed	<i>Erigeron bonariensis</i>	Nonnative
Telegraph weed	<i>Heterotheca grandiflora</i>	Native
Family Boraginaceae		
Common fiddleneck	<i>Amsinckia menziesii</i>	Native
Family Brassicaceae		
Lesser swine cress	<i>Lepidium didymum</i>	Nonnative
Shepherd's purse	<i>Capsella bursa-pastoris</i>	Nonnative
Short pod mustard	<i>Hirschfeldia incana</i>	Nonnative
Family Caryophyllaceae		
Common chickweed	<i>Stellaria neglecta</i>	Nonnative
Family Chenopodiaceae		
Russian thistle	<i>Salsola tragus</i>	Nonnative
Family Geraniaceae		
Musky stork's bill	<i>Erodium moschatum</i>	Nonnative
Family Laminaceae		
Henbit deadnettle	<i>Lamium amplexicaule</i>	Nonnative
Family Malvaceae		



Common Name	Scientific Name	Status
Cheeseweed mallow	<i>Malva parviflora</i>	Nonnative
Family Onagraceae		
Panicled willow herb	<i>Epilobium brachycarpum</i>	Native
Family Phrymaceae		
Seep monkeyflower	<i>Mimulus guttatus</i>	Native
Family Poaceae		
Annual meadow grass	<i>Poa annua</i>	Nonnative
Barnyard grass	<i>Echinochloa crus-galli</i>	Nonnative
Bermuda grass	<i>Cynodon dactylon</i>	Nonnative
Foxtail barley	<i>Hordeum murinum</i>	Nonnative
Jungle rice	<i>Echinochloa colona</i>	Nonnative
Saltgrass	<i>Distichlis spicata</i>	Native
Family Polygonaceae		
Prostrate knotweed	<i>Polygonum aviculare</i>	Nonnative
Family Solanaceae		
Sacred datura	<i>Datura wrightii</i>	Native
White nightshade	<i>Solanum americanum</i>	Native
Birds		
Family Accipitridae		
Cooper's hawk	<i>Accipiter cooperii</i>	MBTA, CFGC
Red-tailed hawk	<i>Buteo jamaicensis</i>	MBTA, CFGC
Family Anatidae		
Canada goose	<i>Branta canadensis</i>	MBTA, CFGC
Family Cathartidae		
Turkey vulture	<i>Cathartes aura</i>	MBTA, CFGC
Family Charadriidae		
Killdeer	<i>Charadrius vociferus</i>	MBTA, CFGC
Family Columbidae		



Common Name	Scientific Name	Status
Mourning dove	<i>Zenaida macroura</i>	MBTA, CFGC
Family Corvidae		
American crow	<i>Corvus brachyrhynchos</i>	MBTA, CFGC
California scrub-jay	<i>Aphelocoma californica</i>	MBTA, CFGC
Family Emberizidae		
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	MBTA, CFGC
Family Falconidae		
American kestrel	<i>Falco sparverius</i>	MBTA, CFGC
Family Fringillidae		
American goldfinch	<i>Spinus tristis</i>	MBTA, CFGC
House finch	<i>Haemorhous mexicanus</i>	MBTA, CFGC
Family Mimidae		
Northern mockingbird	<i>Mimus polyglottos</i>	MBTA, CFGC
Family Parulidae		
Yellow-rumped warbler	<i>Setophaga coronata</i>	MBTA, CFGC
Family Picidae		
Northern flicker	<i>Colaptes auratus</i>	MBTA, CFGC
Family Polioptilidae		
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>	MBTA, CFGC
Family Sturnidae		
European starling	<i>Sturnus vulgaris</i>	Nonnative
Family Trochilidae		
Anna's hummingbird	<i>Calypte anna</i>	MBTA, CFGC
Family Tyrannidae		
Black phoebe	<i>Sayornis nigricans</i>	MBTA, CFGC
Mammals		
Family Leporidae		
Desert cottontail	<i>Sylvilagus audubonii</i>	--



Common Name	Scientific Name	Status
Family Sciuridae		
California ground squirrel	<i>Otospermophilus beecheyi</i>	--

MBTA = Protected under the MBTA (16 USC § 703 et seq.); CFGC = Protected under CFGC §§ 3503 and 3513

3.2.3 Nesting Birds

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, killdeer (*Charadrius vociferus*) and house finch (*Haemorrhous mexicanus*). Large trees within 0.5 miles of the Project site could provide nesting substrates for raptors.

3.2.4 Regulated Habitats

A Madera Irrigation District canal bordered the northern boundary of the Project site (Figure 10). The canal is listed in the National Wetlands Inventory as riverine with a classification of R4SBCx, which means unknown intermittent, streambed, seasonally flooded, and excavated (USFWS 2024b). The canal contained discontinuous, standing water during the 17 December 2024 reconnaissance survey (Figure 11). As the canal evidently lacks a continuous surface connection to a water of the United States, it is not likely regulated by the USACE. However, as it contained surface water and would be classified as a stream, it is likely under the regulatory jurisdiction of the SWRCB and the CDFW, respectively. Regardless, the Project is not expected to impact the canal.

3.3 Special-Status Species

The following special-status species could occur on or near the Project site based on the presence of habitat:

3.3.1 Burrowing Owl

Burrowing owl is a member of the family Strigidae recognized as a state candidate for listing as threatened or endangered by the CDFW (2023). It occurs primarily in grassland but can persist and even thrive in agricultural or other developed and disturbed areas (Shuford and Gardali 2008, Rosenberg and Haley 2004). Burrowing owl depends on burrow systems excavated by other species such as California ground squirrel and American badger (*Taxidea taxus*) (Poulin et al. 2020). Burrowing owl uses burrows for protection from predators, weather, as roosting sites, and dwellings to raise young (Poulin et al. 2020). It commonly



perches outside burrows on mounds of soil or nearby fence posts. Prey types include insects, especially grasshoppers and crickets, small mammals, frogs, toads, and lizards (Poulin et al. 2020). The nesting season begins in March, and incubation lasts 28–30 days. The female incubates the eggs while the male forages and delivers food items to the burrow-nest; young then fledge between 44 and 53 days after hatching (Poulin et al. 2020). Adults can live up to eight years in the wild.

There is one CNDDDB occurrence record of burrowing owl from within 5 miles of the Project site. Two additional CNDDDB occurrence records were found in the nine-quadrant search (CDFW 2024). California ground squirrel burrows on the Project site could support the species. However, the Project site is routinely disturbed, and no sign of burrowing owl was detected during the 17 December 2024 reconnaissance survey. Therefore, the potential for this species to occur on or near the Project site is low.



4.0 Environmental Impacts

4.1 Significance Determinations

This Project, which will result in permanent impacts to orchard and vineyard, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as no such habitat is present on the Project site; (2) cause a fish or wildlife population to drop below self-sustaining levels (criterion b) as no such potentially vulnerable population is known from the area; (3) threaten to eliminate a plant or animal community (criterion c) as no such potentially vulnerable communities are known from the area; (4) substantially reduce the number or restrict the range of a rare or endangered plant or animal (criterion d) as no such potentially vulnerable species are known from the area; (5) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS (criterion f) as no riparian habitat or other sensitive natural community was present in the survey area; (6) have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (criterion g) as no impacts to wetlands will occur; (7) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (criterion i) as no such ordinances are pertinent to the Project; or (8) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan (criterion j) as no such plan has been adopted. Thus, these significance criteria are not analyzed further.

The remaining statutorily defined criteria provide the framework for Criterion BIO1 and Criterion BIO2 below. These criteria are used to assess the impacts to biological resources stemming from the Project and provide the basis for determinations of significance:

- Criterion BIO1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS (significance criterion e).
- Criterion BIO2: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native



resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (significance criterion h).

4.1.1 Direct and Indirect Effects

4.1.1.1 Potential Effect #1: Have a Substantial Effect on Any Special-Status Species (Criterion BIO1)

The Project could adversely affect, either directly or through habitat modifications, one special-status animal species that occurs or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. We recommend that Mitigation Measure BIO1 (below) be included in the conditions of approval to reduce the potential impacts to less-than-significant levels.

Mitigation Measure BIO1. Protect burrowing owl.

1. A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that no burrowing owl will be disturbed during the implementation of the Project. A pre-construction clearance survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential burrowing owl habitat in and immediately adjacent to the impact areas.
2. If a burrowing owl or sign of burrowing owl use (e.g., feathers, guano, pellets) is detected on or within 500 feet of the Project site, and the qualified biologist determines that Project activities would disrupt the owl(s), a construction-free buffer, limited operating period, or passive relocation shall be implemented in consultation with the CDFW.

4.1.1.2 Potential Effect #2: Interfere Substantially with Native Wildlife Movements, Corridors, or Nursery Sites (Criterion BIO2)

The Project has the potential to impede the use of nursery sites for native birds protected under the MBTA and CFGC. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any



activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant effect. We recommend that the mitigation measure BIO2 (below) be included in the conditions of approval to reduce the potential effect to a less-than-significant level.

Mitigation Measure BIO2. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.



5.0 Literature Cited

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Appendix A. USFWS list of threatened and endangered species.

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

Madera 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

NOT FOR CONSULTATION

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 species¹ 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 Fisheries²).

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
Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/625	Endangered
Northwestern Pond Turtle <i>Actinemys marmorata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Western Spadefoot *Spea hammondi*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/5425>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species.<https://ecos.fws.gov/ecp/species/9743>**Valley Elderberry Longhorn Beetle** *Desmocerus californicus dimorphus*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/7850>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

Hairy Orcutt Grass *Orcuttia pilosa*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/2262>

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

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

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-incident-take-migratory-birds>
- Nationwide conservation 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>

Bald and Golden Eagle information is not available at this time

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 a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- 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-incident-take-migratory-birds>
- Nationwide conservation 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>

Migratory bird information is not available at this time

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

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

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go 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 year-round), you may query your location using the [RAIL Tool](#) and look at 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 migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of

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

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R4SBCx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

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 tubercid 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.

NOT FOR CONSULTATION



Appendix B. CNDDB occurrence records.



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Madera (3612081) OR Bonita Ranch (3612082) OR Berenda (3712012) OR Kismet (3712011) OR Daulton (3711918) OR Gregg (3611988) OR Herndon (3611978) OR Biola (3612071) OR Gravelly Ford (3612072))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alkali-sink goldfields <i>Lasthenia chrysantha</i>	PDAST5L030	None	None	G2	S2	1B.1
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
American bumble bee <i>Bombus pensylvanicus</i>	IIHYM24260	None	None	G3G4	S2	
blunt-nosed leopard lizard <i>Gambelia sila</i>	ARACF07010	Endangered	Endangered	G1	S2	FP
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
California alkali grass <i>Puccinellia simplex</i>	PMPOA53110	None	None	G2	S2	1B.2
California linderiella <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
California tiger salamander - central California DPS <i>Ambystoma californiense pop. 1</i>	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G4	S4	SSC
Fresno kangaroo rat <i>Dipodomys nitratooides exilis</i>	AMAFD03151	Endangered	Endangered	G2TH	SH	
Greene's tuctoria <i>Tuctoria greenei</i>	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
hairy Orcutt grass <i>Orcuttia pilosa</i>	PMPOA4G040	Endangered	Endangered	G1	S1	1B.1
heartscale <i>Atriplex cordulata var. cordulata</i>	PDCHE040B0	None	None	G3T2	S2	1B.2
hoary bat <i>Lasiurus cinereus</i>	AMACC05032	None	None	G3G4	S4	
lesser saltscale <i>Atriplex minuscule</i>	PDCHE042M0	None	None	G2	S2	1B.1
Madera leptosiphon <i>Leptosiphon serrulatus</i>	PDPLM09130	None	None	G3	S3	1B.2
midvalley fairy shrimp <i>Branchinecta mesovallensis</i>	ICBRA03150	None	None	G2	S2S3	
moestan blister beetle <i>Lytta moesta</i>	IICOL4C020	None	None	G2	S2	
molestan blister beetle <i>Lytta molesta</i>	IICOL4C030	None	None	G2	S2	



Selected Elements by Common 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
Munz's tidy-tips <i>Layia munzii</i>	PDAST5N0B0	None	None	G2	S2	1B.2
Northern Hardpan Vernal Pool <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
recurved larkspur <i>Delphinium recurvatum</i>	PDRAN0B1J0	None	None	G2?	S2	1B.2
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S3	
San Joaquin pocket mouse <i>Perognathus inornatus</i>	AMAFD01060	None	None	G2G3	S2S3	
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
Sanford's arrowhead <i>Sagittaria sanfordii</i>	PMALI040Q0	None	None	G3	S3	1B.2
shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	PDPLM0C0J2	None	None	G4T2T3	S2S3	1B.2
spiny-sealed button-celery <i>Eryngium spinosepalum</i>	PDAP10Z0Y0	None	None	G2	S2	1B.2
subtle orache <i>Atriplex subtilis</i>	PDCHE042T0	None	None	G1	S1	1B.2
succulent owl's-clover <i>Castilleja campestris</i> var. <i>succulenta</i>	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S4	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G1G2	S2	SSC
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T3	S3	
Valley Sacaton Grassland <i>Valley Sacaton Grassland</i>	CTT42120CA	None	None	G1	S1.1	
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
vernal pool smallscale <i>Atriplex persistens</i>	PDCHE042P0	None	None	G2	S2	1B.2
western spadefoot <i>Spea hammondi</i>	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC

Record Count: 37



Appendix C. CNPS plant list.

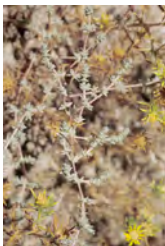


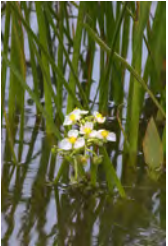
CNPS Rare Plant Inventory

Search Results

17 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3711918:3611988:3611978:3612072:3612071:3612082:3612081:3712012:3712011]

CA RARE												DATE ADDED	PHOTO
▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	PLANT RANK	CA ENDEMIC			
<i>Atriplex cordulata</i> var. <i>cordulata</i>	heartscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G3T2	S2	1B.2	Yes	1988-01-01		© 1994 Robert E. Preston, Ph.D.
<i>Atriplex minuscula</i>	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	G2	S2	1B.1	Yes	1994-01-01		© 2000 Robert E. Preston, Ph.D.
<i>Atriplex persistens</i>	vernal pool smallscale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G2	S2	1B.2	Yes	2001-01-01	No Photo Available	
<i>Atriplex subtilis</i>	subtle orache	Chenopodiaceae	annual herb	(Apr)Jun-Sep (Oct)	None	None	G1	S1	1B.2	Yes	1994-01-01		© 2000 Robert E. Preston, Ph.D.
<i>Castilleja campestris</i> var. <i>succulenta</i>	succulent owl's- clover	Orobanchaceae	annual herb (hemiparasitic)	(Mar)Apr-May	FT	CE	G4? T2T3	S2S3	1B.2	Yes	1984-01-01	No Photo Available	
<i>Delphinium hansenii</i> ssp. <i>ewanianum</i>	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	None	None	G4T3	S3	4.2	Yes	1994-01-01	No Photo Available	

<u><i>Delphinium recurvatum</i></u>	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G2?	S2	1B.2	Yes	1988-01-01	No Photo Available
<u><i>Eryngium spinosepalum</i></u>	spiny-sepaled button-celery	Apiaceae	annual/perennial herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1980-01-01	No Photo Available
<u><i>Lasthenia chrysantha</i></u>	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019-09-30	 © 2009 California State University, Stanislaus
<u><i>Layia munzii</i></u>	Munz's tidy-tips	Asteraceae	annual herb	Mar-Apr	None	None	G2	S2	1B.2	Yes	1988-01-01	 © 2017 Neal Kramer
<u><i>Leptosiphon serrulatus</i></u>	Madera leptosiphon	Polemoniaceae	annual herb	Apr-May	None	None	G3	S3	1B.2	Yes	1980-01-01	 © 2008 Chris Winchell
<u><i>Navarretia nigelliformis</i> ssp. <i>radians</i></u>	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	None	None	G4T2T3	S2S3	1B.2	Yes	1994-01-01	No Photo Available
<u><i>Orcuttia inaequalis</i></u>	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	FT	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
<u><i>Orcuttia pilosa</i></u>	hairy Orcutt grass	Poaceae	annual herb	May-Sep	FE	CE	G1	S1	1B.1	Yes	1980-01-01	 © 2003 George W. Hartwell
<u><i>Puccinellia simplex</i></u>	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G2	S2	1B.2		2015-10-15	 © 2017 Chris Winchell
<u><i>Sagittaria sanfordii</i></u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
<u><i>Tuctoria greenei</i></u>	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	FE	CR	G1	S1	1B.1	Yes	1974-01-01	 ©2008 F. Gauna

Showing 1 to 17 of 17 entries

Suggested Citation:

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