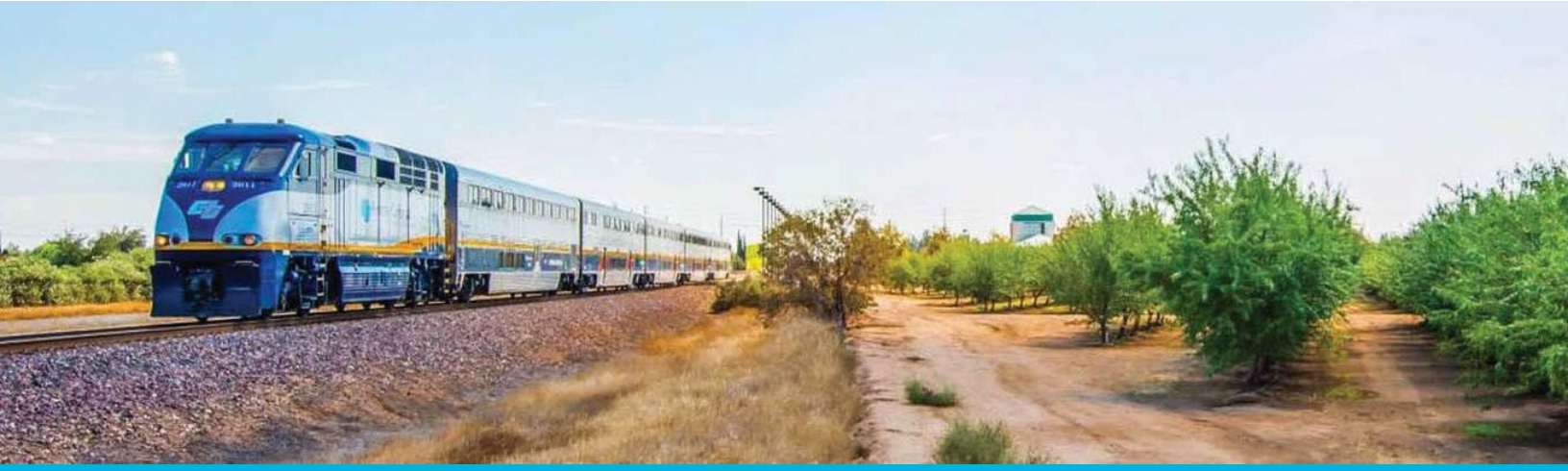

Madera High-Speed Rail Station Full-Build Project Phase 3

APPENDIX A
BIOLOGICAL RESOURCES
TECHNICAL REPORT

April 2025

Biological Resources Technical Report

Madera HSR Station Full-Build Project Phase 3

Prepared for.

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April 2025

ICF. 2025. *Madera HSR Station Full-Build Project Phase 3 Biological Resources Technical Report*. April. (ICF #104831) Sacramento, CA. Prepared for San Joaquin Joint Powers Authority, Stockton, CA.

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Acronyms and Abbreviations

BGTLRP	Borden-Gregg Transmission Line Re-Alignment Project
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
FESA	federal Endangered Species Act
FR	Federal Register
GIS	geographic information system
HSR	High-Speed Rail
MBTA	Migratory Bird Treaty Act of 1918, as amended
Natural Communities List	CDFW's List of Vegetation Alliances and Associations
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRCS	National Resources Conservation Service
OCS	overhead contact system
proposed Project	Madera High-Speed Rail Station Full-Build Phase 3 Project
RWQCBs	Regional Water Quality Control Boards
report	biological resources technical report
SJJPA	San Joaquin Joint Powers Authority
SR-	State Route
SSC	Species of Special Concern
study area	proposed Project study area
USC	U.S. Government Code
USFWS	U.S. Fish and Wildlife Service

1. INTRODUCTION

On behalf of the San Joaquin Joint Powers Authority (SJJPA), ICF prepared this biological resources technical report (report) for the Madera High-Speed Rail (HSR) Station Full-Build Project Phase 3 (Project), in Madera County, California. The purpose of this report is to identify sensitive biological resources within the proposed Project study area (study area), to support the SJJPA's preparation of documentation under the California Environmental Quality Act (CEQA), and to provide supporting information for regulatory permit applications. This report will also be used by the California HSR Authority to support documentation under the National Environmental Policy Act (NEPA) and comply with Section 7 of the federal Endangered Species Act (FESA). A summary of federal and state environmental laws and regulations relevant to the proposed Project is attached as Appendix A-1, *Regulatory Setting*.

1.1. Project Location

The study area is located in Madera County, within the Gregg U.S. Geological Survey 7.5-minute quadrangle, southeast of the City of Madera and east of State Route (SR-) 99 (Figure 1). The proposed Project site is at 36.93472°N latitude, –119.98528°W longitude, less than 2 miles from the city limits.

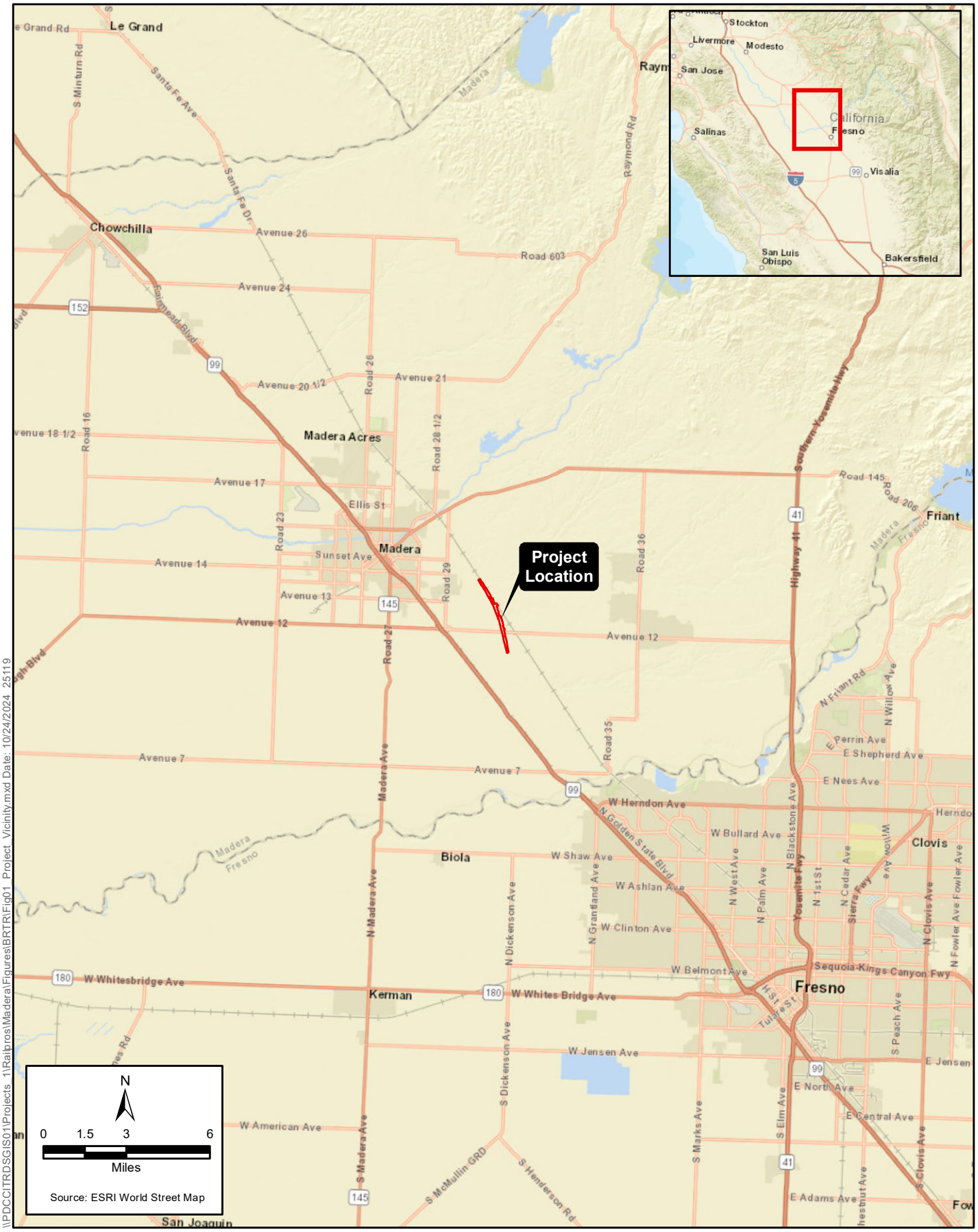
1.2. Project Description

The Project would be designed to serve as the key connection for Madera County and portions of Fresno County to the intercity rail network, supporting expanded HSR operations and service levels (beyond the early operating segment) associated with Valley-to-Valley HSR Service (San Francisco to Bakersfield) and subsequently Phase 1 HSR service (San Francisco to Los Angeles) at the proposed Madera HSR Station. The Project would include improvements in addition to those previously cleared for Phases 1 and 2 in the 2021 IS/MND. The proposed Project would include the following improvements.

- **Platform:** A single, side-loaded platform would be constructed parallel to and west of the HSR trackwork (under construction), immediately adjacent to the proposed station siding track. The platform would be approximately 1,410 feet long and include canopies, and the height would accommodate trainsets for the HSR system. Additionally, in order to provide access for passengers to the side-loaded platform on the western side, a pedestrian bridge would be constructed over the HSR mainline and station tracks.
- **Trackwork and Overhead Contact System:** In conjunction with the new westside platform, the Project would construct a new station siding track on the west side of the station. Together with the station siding track on the east side of the station completed under Phase 2, the Project would provide the Madera HSR Station with a total of four tracks. These would be arranged in a typical "local" station layout: two through tracks in the center (for faster trains not stopping at the station) and one siding track on either side (for slower trains stopping at the station). The entire length of the new siding track, from the turnout locations at the north and south, would be approximately 14,600 feet. The turnouts would be designed for speeds up to 110 miles per hour.
- **Bridges:** Three new bridge structures (one track bridge at Cottonwood Creek, one roadway bridge at Avenue 12, and one pedestrian bridge at the Madera station) are included in the Project.
- **Overhead Contact System and Traction Power Substation:** In conjunction with the proposed station siding track that would serve the proposed western platform, an overhead contact system (OCS) would be constructed along its entire length to provide electrical power to electrified trainsets. The OCS would consist of poles at intervals matching the OCS poles being constructed as part of the California High-Speed Rail Authority project. These OCS poles are

expected to be approximately 30 feet tall and would have foundations extending approximately 6 to 10 feet below the ground surface. To provide power to the OCS, a small traction power substation may be needed, though there is a possibility that electrical power could be drawn from the OCS planned to be constructed in association with the California High-Speed Rail Authority project's adjacent mainline tracks. If a traction power substation is required, it would be located near the northern end of the western platform.

- **Parking*:*** Additional parking would be provided to accommodate the demand of Phase 3. The expanded parking lot would result in a net increase of approximately 542 parking spaces above the 401 parking spaces cleared for Phase 2, for a new total of 943 parking spaces.
- **Station Building Expansion:** The Project includes construction of an expanded or new separate station building, which would expand upon the station support services provided with the Phase 2 building identified in the prior IS/MND.
- **Culverts:** There are 10 proposed drainage culverts that are part of the Project, all of which would be extensions of culverts originally constructed as part of Phase 2 of the proposed Madera HSR Station.
- **Wildlife Crossings:** There are two proposed wildlife crossings that are part of the Project; both would be extensions of wildlife crossing facilities originally constructed as part of Phase 2 of the proposed Madera HSR Station.
- **Relocation of Pacific Gas and Electric Company Transmission Line:** Pacific Gas and Electric Company is currently implementing the Borden-Gregg Transmission Line Re-Alignment Project (BGTLRP) in the vicinity of the Project. The BGTLRP conflicts with the location of the southern end of the western side station siding track and with a culvert extension, both of which would be constructed as part of the Project. Poles 003 and 004 from the BGTLRP would need to be relocated slightly to the west, as part of the Project.



\\PDCCITRDSGIS01\Projects \1Railpros\Madera\Figures\BRTR\Fig01 Project Vicinity.mxd Date: 10/24/2024 25119

Figure 1
Project Vicinity Map
Madera Project

2. METHODS

2.1. Study Area

The study area (Figure 2) includes a segment of Cottonwood Creek, the access road, and adjacent ditches and private parcels. The study area includes a 50-foot buffer around all areas proposed for potential Project activities and represents the limits of disturbance.

2.2. Literature Review

Prior to performing the biological and botanical surveys, ICF reviewed publicly available data and subscription-based biological resources data. Data sources that assisted in this analysis include the following.

- **California Natural Diversity Database** (CNDDB) records search for the Gregg (3611988) 7.5-minute quadrangle and eight surrounding 7.5-minute quadrangles (CDFW 2024a; Appendix A-4, *Representative Photos*)
- **California Native Plant Society** (CNPS) online Inventory of Rare and Endangered Plants of California records search of the Gregg (3611988) 7.5-minute quadrangle and eight surrounding 7.5-minute quadrangles (CNPS 2024; Appendix A-4)
- **U.S. Fish and Wildlife Service** (USFWS) **Information for Planning and Consultation** (IPaC) list of federally endangered and threatened species, critical habitat, and wetlands that may occur in or be affected by the proposed Project (USFWS 2023; Appendix A-4)
- **National Marine Fisheries Service** (NMFS) list of species that may occur in the vicinity of the proposed Project (NMFS 2016) (Gregg quadrangle)
- **National Resources Conservation Service** (NRCS) online soil maps (2024)

The California Department of Fish and Wildlife (CDFW), CNPS, USFWS, and NMFS lists were used to develop lists of special-status plant and wildlife species and other sensitive biological resources that could be present or are known to occur in the region. For the purposes of this report, *special-status species* are those with one or more of the following characteristics.

- Species listed or proposed for listing as threatened or endangered under FESA (50 Code of Federal Regulations [CFR] 17.11 [listed animals], 50 CFR 17.12 [listed plants], and various notices in the *Federal Register* [FR] [proposed species])
- Species that are candidates for possible future listing as threatened or endangered under FESA (87 FR 26152 May 3, 2022)
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations 670.5)
- Plants considered by the CDFW and CNPS to be “rare, threatened, or endangered in California” (California Rare Plant Rank (CRPR) 1B and 2; CDFW 2024a; CNPS 2024)
- Plants identified by CDFW and CNPS about which more information is needed to determine their status, and plants of limited distribution (CRPR 3 and 4; CDFW 2024a; CNPS 2024)
- Animal species, subspecies, or distinct populations designated as Species of Special Concern (SSC) by CDFW
- Animals fully protected in California (California Fish and Game Code [CFGC] § 3511 [birds], § 4700 [mammals], § 5050 [amphibians and reptiles], and § 5515 [fish])
- Plants or animals determined to meet the definitions of *rare* or *endangered* under Section 15380 of the CEQA Guidelines
- Plants or animals with no formal special status, but that are considered by experts to be rare or in serious decline and that may warrant special status based on recent information

2.3. Field Survey Methods

For the purposes of this report, the *survey area* is defined as the dirt road and surrounding HSR right of way, where access was permitted (Figure 3). Due to access limitations, comprehensive surveys were not conducted within the remainder of the study area beyond the right of way (i.e., the survey area). Areas outside of the survey area were assessed using binoculars.

2.3.1. Wildlife Habitat Assessment

ICF Biologist Kaitlin Kozlowski conducted a general biological survey including a habitat assessment on May 1, 2024. The survey consisted of documenting wildlife observed and determining the presence and suitability of habitat for special-status species with the potential to occur within the study area. A list of wildlife observed is provided in Appendix A-3, *Plant and Wildlife Species Observed*.

2.3.2. Botanical Surveys and Upland Land Cover Mapping

ICF Botanists Lasthenia Lee and Ana Verschoor conducted a botanical survey on April 4, 2024, and Ms. Verschoor returned with Brad Stoneman to complete the survey on April 18, 2024. ICF Botanist Shawn Johnston conducted an additional botanical survey on July 18, 2024. Surveys were conducted from either side of the dirt access road. The surveys consisted of conducting a botanical inventory within the survey area and documenting vegetative communities. Botanical surveys were floristic in nature and conducted to coincide with the identifiable periods of potentially occurring special-status plant species. Natural communities were characterized and mapped in the field using aerial imagery, and the boundaries were subsequently digitized using geographic information system (GIS) software in the State Plane coordinate system (NAD 83) with units as “survey feet.” Nomenclature of the land-cover types are consistent with the descriptions and categories for Calveg Zone 5 (USDA 2009). Information about natural communities in areas that were not accessible during the 2024 surveys was obtained from that documented in a previous report (SJJPA 2021). A list of plants observed in 2024 is provided in Appendix A-3. Representative photographs of the land cover observed during the 2024 surveys area provided in Appendix A-4.

2.3.3. Aquatic Resources Mapping

ICF Wetland Ecologist Kristen Klinefelter conducted an informal aquatic resources assessment of the survey area on May 1, 2024. Aquatic features were characterized and mapped in the field using aerial imagery, and wetland boundaries were subsequently digitized using GIS software in the State Plane coordinate system (NAD 83) with units as “survey feet.” Information about aquatic resources present in areas that were not accessible during the 2024 surveys was obtained from that documented in a previous report (SJJPA 2021).

Figure 2
Study Area
Madera Project

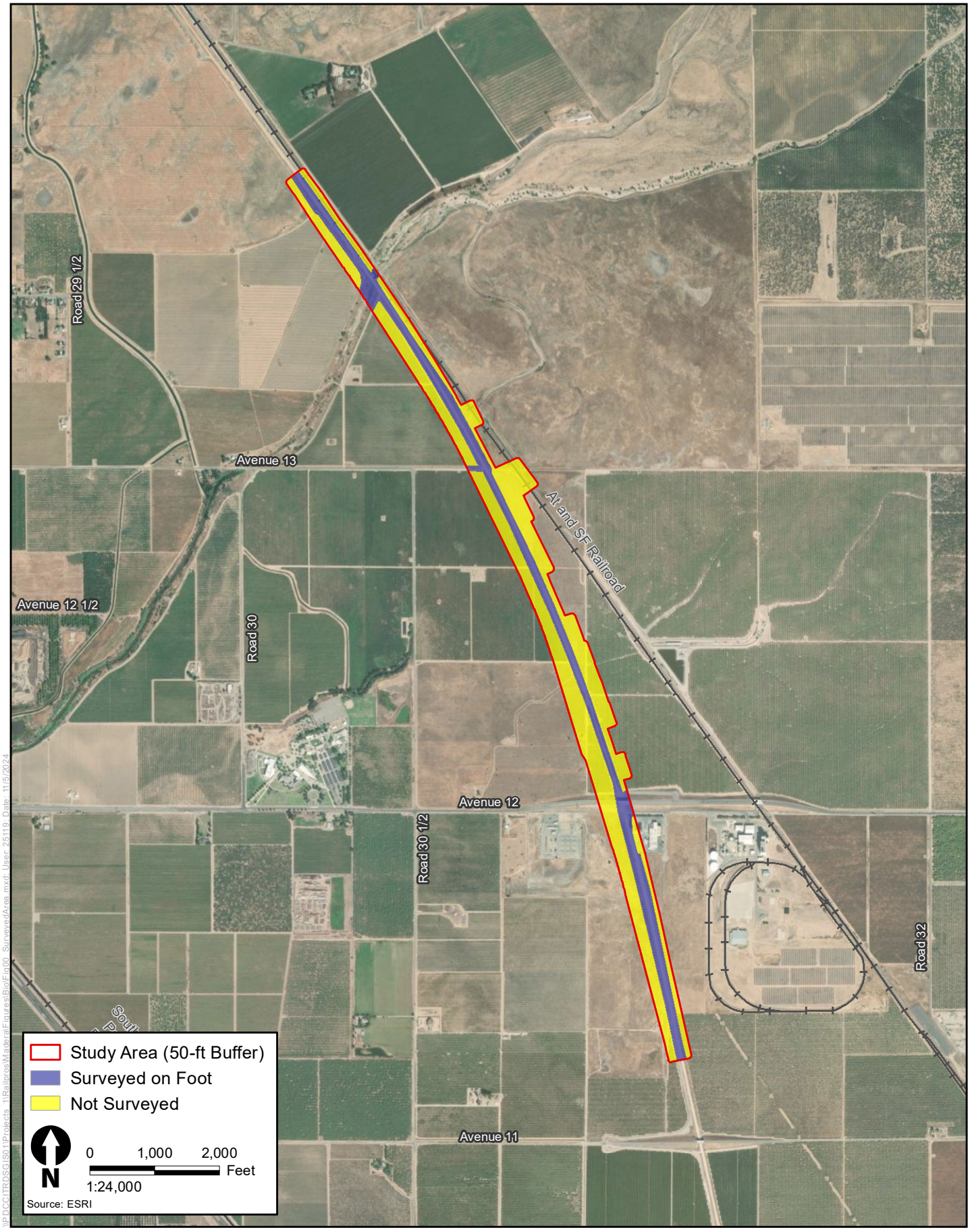


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Figure 3
Surveyed Area
Madera Project

3. RESULTS

3.1. Environmental Setting

3.1.1. Land-Cover Types/Vegetation Communities

The study area includes upland and aquatic land-cover types. *Upland* land-cover types consist of annual grassland, agricultural, disturbed, and developed. *Aquatic* land-cover types include an intermittent stream, agricultural ditches, and seasonal wetlands. Table 3-1 summarizes upland and aquatic land-cover types by acreage within the study area. Land-cover types are illustrated on Figure 4. Representative photographs of landcover in the survey area are presented in Appendix A-4.

Table 3-1: Land Cover by Acreage within the Study Area

Land Cover Type	Acres[1]
Upland	
Annual Grassland	78.68
Agricultural	46.26
Disturbed	28.29
Developed	6.75
Upland Total	*159.98*
Aquatic	
Intermittent Stream (Cottonwood Creek)[2]	1.64[2]
Agricultural Ditch	0.47
Seasonal Wetland	0.36
Aquatic Total	*2.47*
Total	**162.45**

[1] Minor difference due to rounding error.
[2] Acreage includes the portions of the intermittent stream that flow beneath the disturbed (dirt road) and developed areas (railroad) and the acreages of the individual riparian trees and shrubs mapped within the stream.

3.1.2. Upland Land Cover Types

3.1.2.1. Annual Grassland

Annual grassland occurs on either side of the access road that runs mostly parallel to the railroad and within several parcels on the eastern side of the access road. This land-cover type corresponds to the annual grasses and forbs alliance (USDA 2009). Dominant grasses observed in the annual grassland include soft chess (*Bromus hordeaceus*), wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), and dominant forbs, including Menzie's fiddleneck (*Amsinckia menziesii*) and large storksbill (*Erodium botrys*). A few isolated trees and shrubs occur in the annual grassland on the northwestern side of Cottonwood Creek and on the northwestern side of Avenue 12.

3.1.2.2. Agricultural

Agricultural areas include orchards, vineyards, and row crops. This land-cover type occurs on the majority of the western edge of the study area.

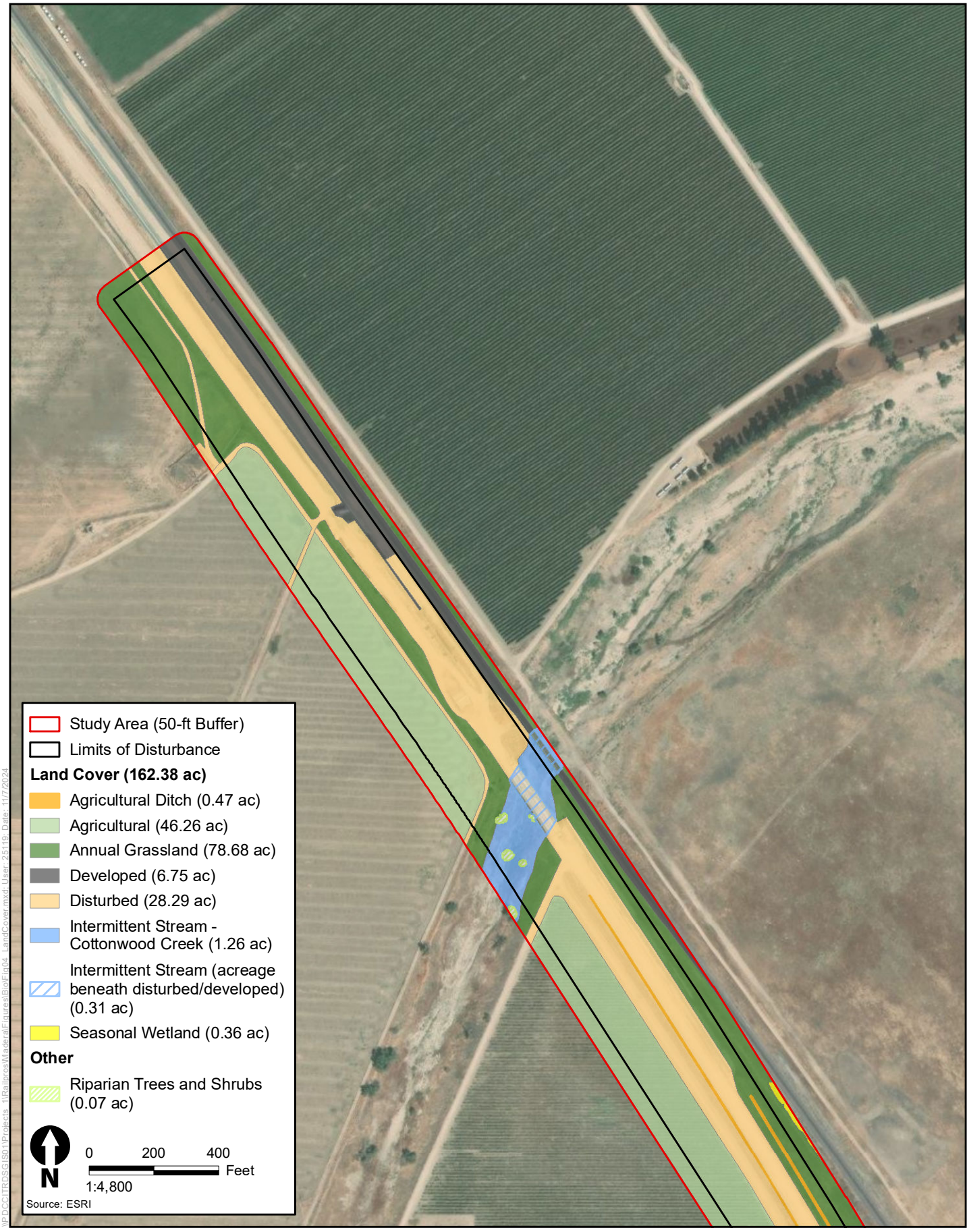

Figure 4 - Sheet 1 of 4
Land Cover
Madera Project

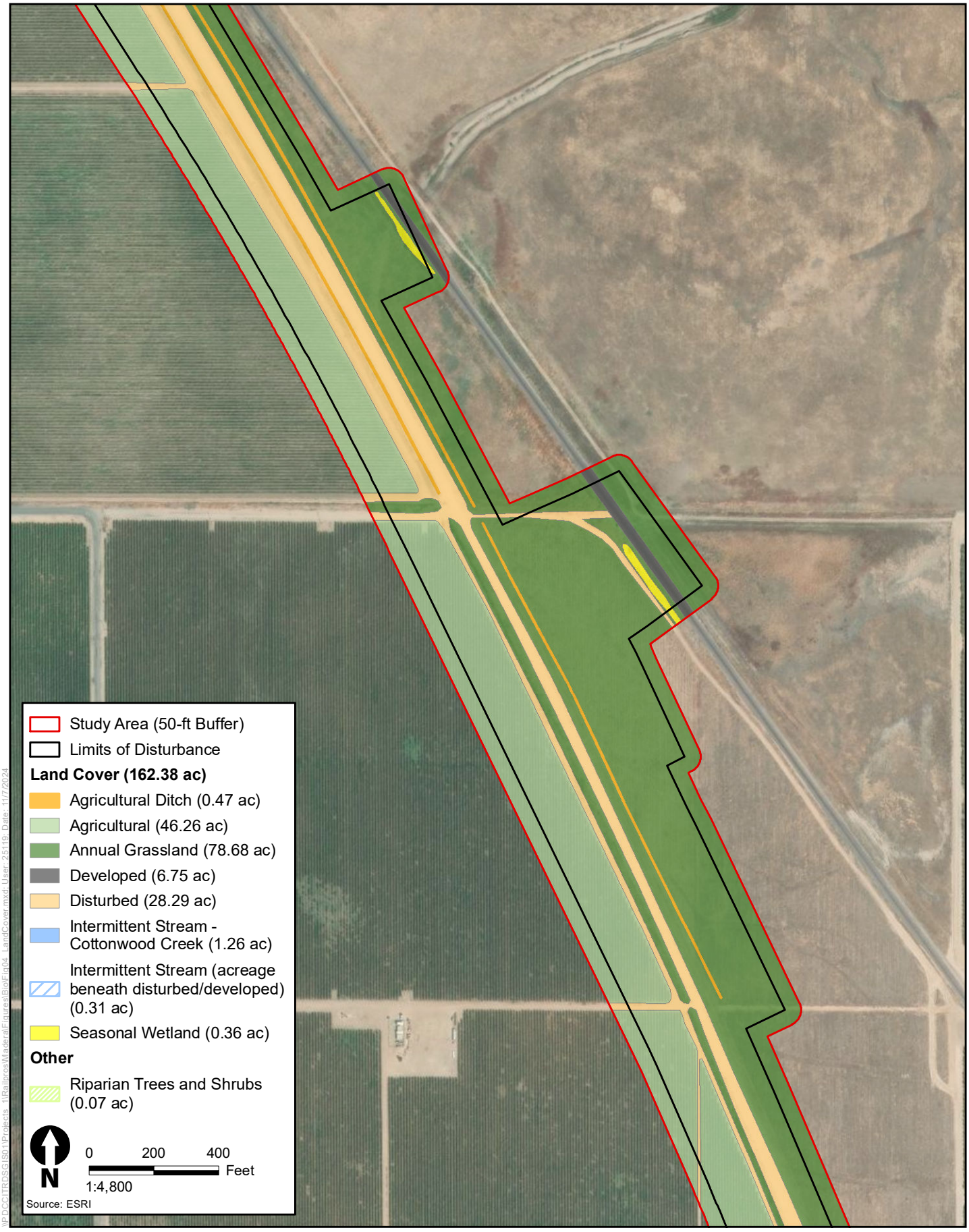

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Figure 4 - Sheet 2 of 4
Land Cover
Madera Project

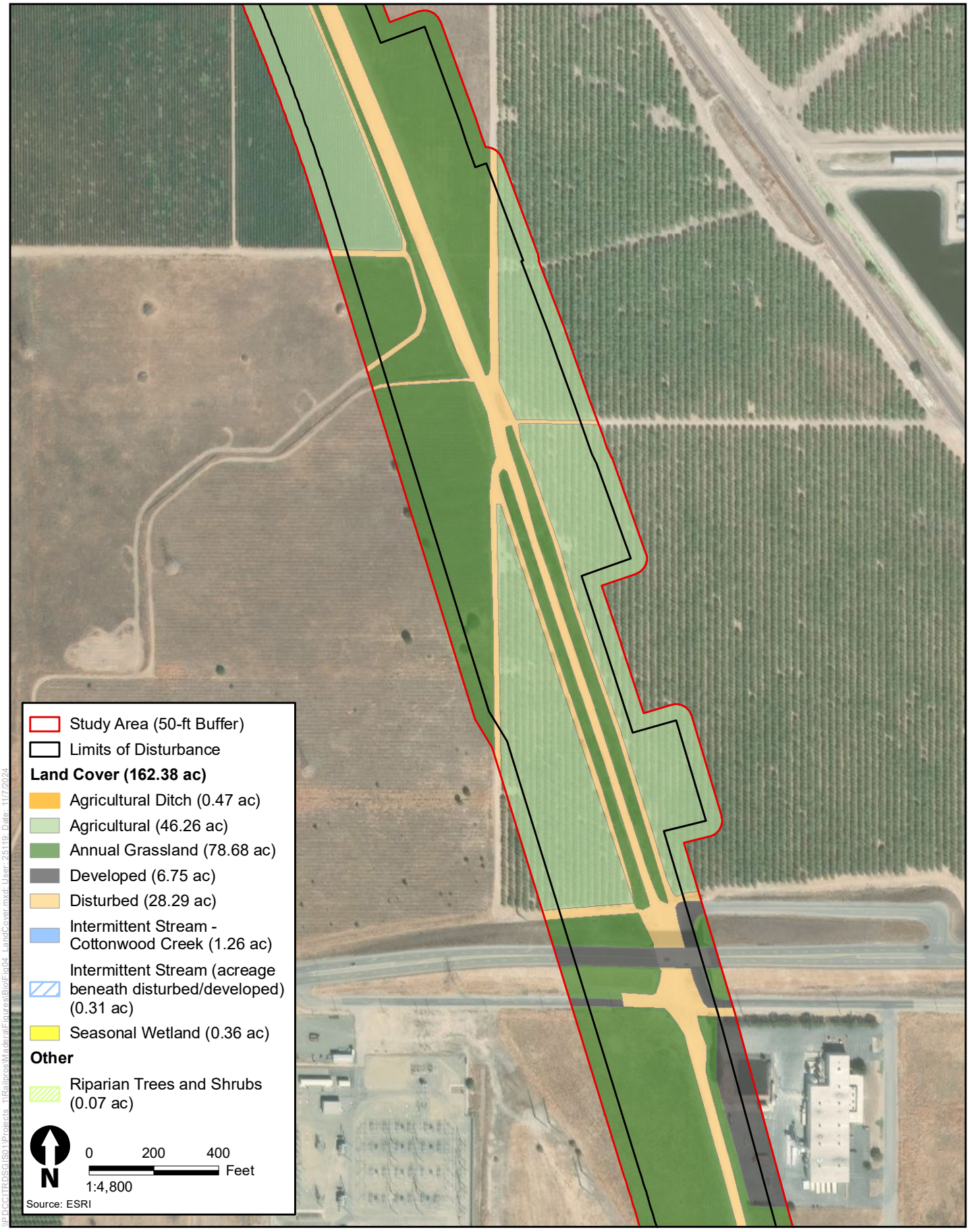

Figure 4 - Sheet 3 of 4
Land Cover
Madera Project

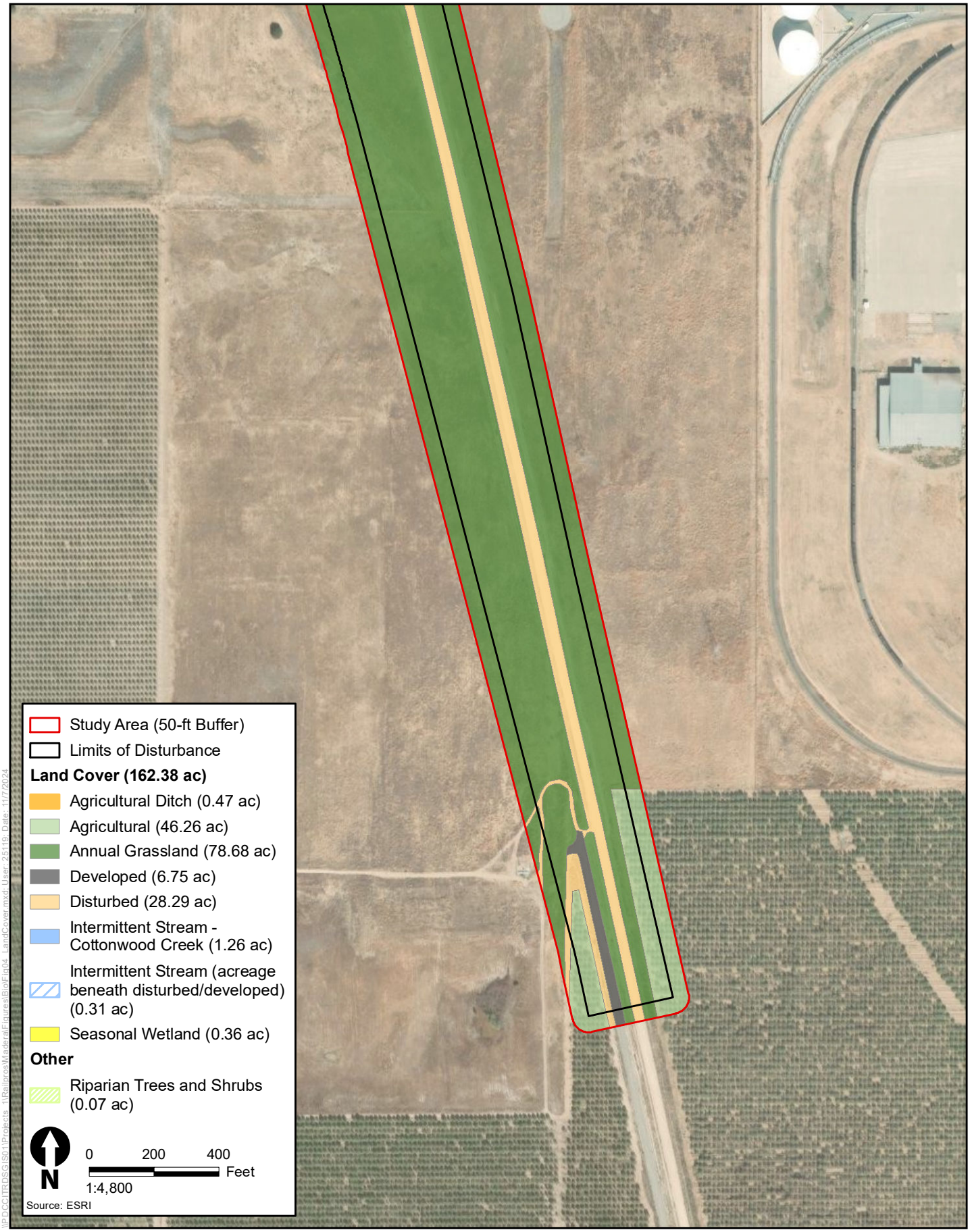

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Figure 4 - Sheet 4 of 4
Land Cover
Madera Project

3.1.2.3. Disturbed

Disturbed areas consist of a dirt access road which is characterized by compacted soil, regular maintenance activities, and little to no vegetation. Developed areas include the bridge over Cottonwood Creek and other human-made structures in the study area, such as the cement sound barrier just east of the northern extent of the access road.

3.1.2.4. Developed

Developed areas include the railroad bridge over Cottonwood Creek and other human-made structures in the study area, such as the cement sound barrier just east of the northern extent of the access road.

3.1.3. AQUATIC LAND-COVER TYPES

3.1.3.1. Intermittent Stream (Cottonwood Creek)

One intermittent stream occurs within the study area: Cottonwood Creek is a riverine feature that runs east–west through the northern portion of the study area. The area of the channel bed surrounding the low-flow channel is sparsely vegetated with Goodding's willow (*Salix gooddingii*), curly dock (*Rumex crispus*), and rough cocklebur (*Xanthium orientale*). The surrounding channel bed and banks are dominated by soft brome and rye grass (*Festuca perennis*), with sparsely vegetated trees and shrubs, including Fremont cottonwood (*Populus fremontii*) and willow (*Salix* spp.).

3.1.3.2. Agricultural Ditches

Several agricultural ditches run north–south along the dirt road within the study area. These ditches have been constructed in uplands for irrigation purposes. Dominant vegetation observed within the agricultural ditches include ripgut brome, rye grass, and Menzie's fiddleneck.

3.1.3.3. Seasonal Wetlands

Three seasonal wetlands occur within the study area (SJJPA 2021). These seasonal wetlands are small, linear-to-oblong depressions located parallel to the toe of the railroad embankment.

3.1.3.4. Habitat Connectivity

Wildlife movement corridors are areas defined by wildlife use for movement events on varying scales (e.g., daily foraging, seasonal migration, dispersal). A functional network of connected wildlands is essential to the continued support of California's diverse natural communities in the face of human development and climate change. Corridors along drainages, valleys, and other features facilitate wildlife movement and connectivity between areas of suitable habitat; the corridors (e.g., linkages) and associated habitats are essential to population viability.

Both terrestrial and aquatic habitat types within the study area are known to support various wildlife species that utilize agricultural areas for foraging, breeding, and dispersal. The proposed Project is located within mapped Essential Fish Habitat defined by Magnuson–Stevens Fisheries Conservation and Management Act for Pacific Coast Salmon; however, there is no suitable habitat to support chinook salmon (*Oncorhynchus tshawytscha*) or any other salmon species. The CDFW Terrestrial Connectivity Areas of Conservation Emphasis classifies the entire study area as Limited Connectivity Opportunity (CDFW 2024c). Therefore, the study area may provide some migratory opportunities for common wildlife species; however, the study area is not within a known wildlife corridor nor considered an essential connectivity area.

3.2. Special-Status Species

Table 3-2 and Table 3-3 list the special-status plant and wildlife species documented by the CNDDB (CDFW 2024a), the CNPS (2024), and the USFWS (2024) lists (Appendix A-4). The tables include the species distribution and habitat requirements data.

The following set of criteria has been used to determine potential for occurrence for each species within the study area.

- **Present**: Species observed within the study area during the biological surveys.
- **High**: Species known to occur on or near the study area (based on CNDDB records within 5 miles and/or based on professional expertise specific to the study area or species), and there is suitable habitat within the study area.
- **Moderate**: Species is not known to occur on or near the study area, but suitable habitat occurs on site or, specifically for plants, habitat is marginal.
- **Low**: Species is not known to occur on or in the vicinity of the study area, and there is no suitable habitat within the study area, or, specifically for plants, the habitat is marginal.
- **None**: The species-required host plant(s) does not occur in or in the vicinity of the study area, or, specifically for plants, there is no suitable habitat in the study area, or the species was surveyed for during the appropriate season with negative results.

Only those species known to be present or that have a high or moderate potential to occur are discussed further.

Reviews of species lists from CDFW, CNPS, USFWS, and NMFS returned 41 special-status species (16 plants, 25 animals) that have the potential to occur in the proposed Project vicinity. Based on the results of the database reviews and biological surveys performed during the site visits, ICF identified 15 of those species (4 plants, 11 animals) to have a moderate or high/present potential to occur (Table 3-2 and Table 3-3) within the study area.

The remaining 26 species (12 plants and 14 animals) were determined to have a no or low potential to occur due to lack of suitable habitat, the presence of marginal habitat, and/or no known occurrences within a 5-mile radius of the study area or region.

Table 3-2: Special-Status Plant Species Potentially Occurring in the Vicinity of the High-Speed Rail Study Area, Madera County, California

Common Name (*Scientific Name*)	Status[2] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence[3]
Hoover's calycadenia (*Calycadenia hooveri*)	–/–/1B.3	Occurs in the northern and central Sierra Nevada Foothills in Calaveras, Madera, Merced, Mariposa, and Stanislaus Counties.	Prefers barren, rocky, exposed soil in cismontane woodland, valley, and foothill grassland; 200–985 feet.	July–September	**None**. No suitable habitat is present within the study area. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Succulent owl's-clover (*Castilleja campestris* ssp. *succulenta*)	FT/CE/1B.2	Occurs in the Sacramento and San Joaquin Valleys, southern Sierra Nevada foothills.	Requires vernal pools (often acidic) and moist places; 50–2,460 feet.	(March) April–May	**Moderate**. Marginal habitat may occur in seasonal wetlands. Nearest recorded occurrence is 0.6 mile northeast of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
California jewelflower (*Caulanthus californicus*)	FE/CE/1B.1	Historically common in western San Joaquin Valley and interior foothills; currently known from scattered locations in Fresno, Kern, Kings, Santa Barbara, and San Luis Obispo Counties.	Occurs in sandy soils in valley and foothill grassland, chenopod scrub, and pinyon–juniper woodland; 200–3,280 feet.	February–May	**Low**. Marginal habitat in annual grassland and no sandy soils are present within the study area. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.

Common Name (*Scientific Name*)	Status[2] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence[3]
Hoover's cryptantha (*Cryptantha hooveri*)	–/–/1A	Occurs in the northern and central San Joaquin Valley: Contra Costa[1], Kern, Madera, Merced, San Joaquin, and Stanislaus[1] counties.	Requires coarse, sandy soil in valley and foothill grassland; 30–490 feet.	April–May	**Low**. Marginal habitat in annual grassland and no sandy soils occur within the study areas. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Ewan's larkspur (*Delphinium hansenii* ssp. *ewanianum*)	–/–/4.2	Found in the San Joaquin Valley and Sierra Nevada foothills.	Requires oak woodland and grassland; 60–600 feet.	March–May	**Low**. Marginal habitat in annual grassland occurs within the study areas. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Dwarf downingia (*Downingia pusilla*)	–/–/2B.2	Occurs in the San Joaquin Valley, southern Sierra Nevada Foothills, Sonoma, Napa, and Solano.	Requires valley and foothill grassland (mesic) and vernal pools; 445–1,460 feet.	March–May	**Low**. Marginal habitat may occur in seasonal wetlands. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Spiny-sepaled button-celery (*Eryngium*) spinosepalum)	–/–/1B.2	Found in San Joaquin Valley and the southern Sierra Nevada Foothills.	Requires vernal pools, swales, and roadside ditches; 80–3,200 feet.	April–June	**Low**. Marginal habitat may occur in seasonal wetlands. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.

Common Name (*Scientific Name*)	Status[2] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence[3]
California satintail (*Imperata brevifolia*)	–/–/2B.1	Occurs in Butte, Fresno, Imperial, Inyo, Kern, Lake[1], Los Angeles, Orange, Riverside, San Bernardino, Tehama, Tulare, and Ventura counties; Arizona, New Mexico[1], Nevada, Texas, Utah; Baja California – Mexico.	Requires mesic sites in chaparral, coastal scrub, Mojave Desert scrub, meadows (often alkali), and riparian scrub; 0–4,000 feet.	September–May	**None**. No suitable habitat occurs within the study area. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Munz's tidy-tips (*Layia munzii*)	–/–/1B.2	Found in the San Joaquin Valley.	Requires alkaline clay soils in Chenopod scrub, valley, and foothill grassland; 150–2,300 feet.	March–April	**Moderate**. Marginal habitat in annual grassland within the study area. Nearest recorded occurrence is historic (1937), located 0.02 mile north of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Madera leptosiphon (*Leptosiphon serrulatus*)	–/–/1B.2	Found in the Southern Sierra Nevada.	Requires openings in woodland and chaparral; 300–4,265 feet.	April–May	**None**. No suitable habitat occurs within the study area. The nearest recorded occurrence is 0.8 mile west of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Pincushion navarretia (*Navarretia myersii* ssp. *myersii*)	–/–/1B.1	Occurs in the Central Valley in Amador, Calaveras, Merced, Placer, and Sacramento counties.	Requires edges of vernal pools; 66–1,080 feet.	April–May	**Low**. Marginal habitat may occur in seasonal wetlands. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.

Common Name (*Scientific Name*)	Status[2] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence[3]
Shining navarretia (*Navarretia nigelliformis* ssp. *radians*)	–/–/1B.2	Found in the Inner and Outer South Coast Ranges.	Found in vernal pools and clay depressions; 10–2,475 feet.	(March) April–July	**Moderate**. Marginal habitat may occur in seasonal wetlands. The nearest recorded occurrence is 1.5 miles north of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)	FT/CE/1B.1	Occurs in the Central Sierra Nevada foothills, San Joaquin Valley.	Found in vernal pools; <2,475 feet.	April–September	**Low**. Marginal habitat may occur in seasonal wetlands. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Hairy Orcutt grass (*Orcuttia pilosa*)	FE/CE/1B.1	Occurs in the San Joaquin and Sacramento Valleys in Madera, Merced, Stanislaus, and Tehama counties.	Found in vernal pools; 45–650 feet.	May–September	**High**. Marginal habitat may occur in seasonal wetlands. Nearest recorded extant occurrences 0.04 mile north of the study area. One likely extirpated occurrence is adjacent to the east side of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.
Sanford's arrowhead (*Sagittaria sanfordii*)	–/–/1B.2	Occurs in Del Norte County, the Klamath Ranges, San Joaquin and Sacramento Valleys, and South Coast.	Requires ponds, ditches; marshes and swamps in shallow freshwater; below 2,135 feet.	May–October (November)	**Low**. Marginal habitat occurs in agricultural ditches; however, these sites are likely too dry to support this species. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.

Common Name (*Scientific Name*)	Status[2] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence[3]
Greene's tuctoria (*Tuctoria greenei*)	FE/CR/1B.1	Occurs in the Butte, Fresno, Madera, Merced, San Joaquin, Stanislaus, Tehama, Shasta, and Tulare counties.	Found in vernal pools; 30–3,510 feet.	May–July (September)	**Low**. Marginal habitat may occur in seasonal wetlands. No recorded occurrences within 5 miles of the study area. Species was not observed during rare plant surveys conducted in accessible areas in 2024.

Sources: CDFW 2024b; CNPS 2024; CCH 2024.

[1] Presumed extirpated

[2] Status explanations

Federal (FESA)

FE = Listed as endangered under the federal Endangered Species Act
FT = Listed as threatened under the federal Endangered Species Act

State (CESA)

CE = Listed as endangered under the California Endangered Species Act
CR = Listed as rare under the California Endangered Species Act
– = No listing

California Rare Plant Rank (CRPR

1B = Rare, threatened, or endangered in California and elsewhere.
2B = Rare, threatened, or endangered in California, but more common elsewhere
3 = More information is needed, a review list
4 = Limited distribution; species on a watch list (note: List 4 may not meet the definition of special status, but may warrant consideration on the basis of local significance or recent biological information
.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)

[3] Recorded occurrences based on CNDDB (USFWS 2024) and CCH 2024

Table 3-3: Special-Status Animal Species Potentially Occurring in the Vicinity of the High-Speed Rail Study Area, Madera County, California

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Invertebrates				
Crotch's bumble bee (*Bombus crotchii*)	–/SCE/–	Occurs throughout the Pacific Coast, Western Desert, and adjacent foothills throughout most of the state's southwestern region.	Found in open grassland and scrub. Nests underground in abandoned rodent burrows. Colonies are annual and only the newly mated queens overwinter. Queens emerge from hibernation in early spring to search for nest sites. Host plant food includes milkweed (*Asclepias* sp.), pincushion (*Chaenactis* sp.), lupine (*Lupinus* sp.), bur clover (*Medicago* sp.), phacelia (*Phacelia* sp.), and sage (*Salvia* sp.).	**Moderate**. Annual grassland provides habitat. In addition, suitable food sources, including *Medicago*, *Lupinus* and *Phacelia* species, occur within the study area. No CNDDB occurrences within 5 miles.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT/–/–	Occurs only in the Central Valley and surrounding foothills below 3,000 feet elevation (USFWS 1980).	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2–8 inches in diameter; some preference shown for "stressed" elderberries.	**None**. Elderberry shrubs are not present in the study area.
Monarch butterfly (*Danaus plexippus*)	FC/–/–	Adults breed and migrate throughout California and overwinter along the California coast and in central Mexico.	Open habitats including fields, meadows, weedy areas, marshes, and roadsides. Monarch butterflies roost in wind-protected tree groves (such as eucalyptus) with nectar and water sources nearby. Caterpillar host plants are native milkweeds.	**Low**. The study area does not provide roosting habitat. Although adults may forage and migrate through the site, no host milkweed plants occur within the study area. No CNDDB occurrences within 5 miles.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Conservancy fairy shrimp (*Branchinecta conservatio*)	FE/–/–	Occurs in the northern two-thirds of the Central Valley; species ranges from Vina Plains of Tehama County, Sacramento NWR in Glenn County, Jepson Prairie Preserve and surrounding area east of Travis Air Force Base, Solano County, Mapes Ranch west of Modesto, and Stanislaus County.	Prefers large vernal pools and seasonal wetlands, approximately 1 acre in size.	**None**. Seasonal wetlands provide habitat within the study area. However, these areas are not large enough to support this species' habitat requirements. No CNDDB occurrences within 5 miles.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT/–/–	Endemic to the Central Valley, Central Coast Mountains, and South Coast Mountains of California. Species ranges from the Vina Plains in Tehama County, through the Central Valley, and south along the Central Coast to northern Santa Barbara County.	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains. Inhabits the ephemeral water of swales and vernal pools. Species most commonly found in grassed or mud-bottomed swales, earth sumps, or basalt flow depression pools in unplowed grasslands.	**High.** Seasonal wetlands within the study area east of the railroad tracks and south of Avenue 12 provide habitat. 6 CNDDB occurrences within 5 miles.
Amphibians				
California tiger salamander (*Ambystoma californiense*)	FT/ST/SSC	Occurs in the Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Grassland and oak woodland with seasonal ponds and/or pools for breeding; small mammal burrows in vicinity of breeding sites for underground retreats during the dry season.	**High.** Ponded areas of Cottonwood Creek, agricultural ditches, and seasonal wetlands provide aquatic habitat and the annual grassland provides upland habitat. Ponds and wetlands in the vicinity of the study area provide breeding habitat. 11 occurrences within 5 miles.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Western spadefoot (*Spea hammondii*)	PFT/-/SSC	Occurs in the California Central Valley and adjacent foothills, coast range from just south of Monterey County to northern Baja California, Mexico.	Found primarily in grassland habitats, but can be found in valley–foothill hardwood woodlands. Vernal pools and seasonal ponds are essential for breeding and egg laying. Species found from sea level to 4,500 feet.	**High.** Ponded areas of Cottonwood Creek, seasonal wetlands, and agricultural ditches provide aquatic habitat, and annual grassland provides upland habitat. Ponds and wetlands in the vicinity of the study area provide breeding habitat. 22 occurrences within 5 miles.
Fish				
Delta smelt (*Hypomesus transpacificus – Critical Habitat*)	FT, CH/CE/–	Found primarily in the Sacramento–San Joaquin Estuary near sea level, but has been found as far upstream as Knights Landing (Vincik and Julienne 2012) on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay.	Occurs in estuary habitat in the Delta, where freshwater and brackish water mix in the salinity range of 2–7 parts per 1,000 (Moyle 2002).	**None.** There is no suitable habitat present for this species.
Hardhead (*Mylopharodon conocephalus*)	–/-/SSC	Occurs in tributary streams in the San Joaquin River drainage, large tributary streams in the Sacramento River and the mainstem, and in low- to mid-elevation streams of the Central Valley (Moyle 2002).	Prefers clear, deep pools and runs with slow velocities.	**None.** There is no suitable habitat present for this species.
Green Sturgeon – Southern DPS *(Acipenser medirostris*)	FT/-/SSC	Occurs in Sacramento, San Joaquin, Stanislaus, Klamath, and Trinity rivers (Moyle 2002; Jackson and Van Eenennaam 2013).	Species spawns in large river systems with well-oxygenated water, with temperatures from 8.0 to 14 degrees Celsius (Moyle 2002).	**None.** There is no suitable habitat present for this species.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Steelhead – California Central Valley DPS (*Oncorhynchus mykiss irideus*)	FT/–/–	Occurs in the Sacramento and San Joaquin rivers and their tributaries.	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 7.8 to 18°C (Moyle 2002). Habitat types are riffles, runs, and pools.	**None.** There is no suitable habitat present for this species.
Reptiles				
Western pond turtle (*Actinemys [Emys] marmorata*)	PFT/-/SSC	California range includes Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada.	Ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and aquatic vegetation in woodland, grassland, and open forest	**Moderate.** Cottonwood Creek provides potential aquatic habitat and the annual grassland provides suitable upland habitat. No CNDDB occurrences within 5 miles.
Northern California legless lizard (*Anniella pulchra*)	-/–/SSC	Occurs in the Coast Ranges from the vicinity of Antioch, Contra Costa County, south to the Mexican border (Jennings and Hayes 1994). Spotty occurrence throughout the rest of their range, which includes the floor of the San Joaquin Valley	Coastal dune, valley–foothill grassland, chaparral, and coastal scrub, primarily in areas with sandy or loose organic soils or where there is plenty of leaf litter.	**Moderate.** Annual grassland provides habitat. No CNDDB occurrences within 5 miles.
California glossy snake (*Arizona eleganes occidentalis*)	-/–/SSC	Occurs from the eastern part of the San Francisco Bay Area south to northwestern Baja California; absent along the central coast. There are also old reports of this snake from the Santa Monica Mountains.	Occurs in arid scrub, grassland, and chaparral habitats, and rocky washes.	**Moderate.** The annual grassland provides habitat within the study area. No CNDDB occurrences within 5 miles.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Blunt-nosed lizard (*Gambelia sila*)	FE/CFP/-	Known from the San Joaquin Valley and nearby valleys and foothills, from extreme northwest Santa Barbara County and western Kern County, north to southern Merced County.	This species is endemic to the San Joaquin Valley, where it inhabits open, sparsely vegetated areas of low relief on the valley floor (including alkali playa and valley saltbush scrub) and surrounding foothills. Prefers flat areas with open space for running, avoiding densely vegetated areas	**None**. There is no suitable habitat present for this species. No CNDDB occurrences within 5 miles.
Coast horned lizard (*Phrynosoma blainvillii*)	-/-/SSC	Although the current range is more fragmented, historically this species was found along the Pacific coast, from the Baja California border west of the deserts, and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California. Ranges up onto the Kern Plateau east of the crest of the Sierra Nevada. Occurs from sea level to 8,000 feet in elevation.	Requires sandy or loose soil and abundant ant colonies for foraging; habitat ranges from exposed gravelly sandy substrate in riparian woodlands to dry uniform chamise chaparral to annual grassland or saltbrush.	**Moderate**. Annual grassland provides habitat within the study area. No CNDDB occurrences within 5 miles.
Birds				
Tricolored blackbird (*Agelaius tricolor*)	–/CT/SSC	A resident in California found throughout the Central Valley and in coastal districts from Sonoma County south. Found locally in northeastern California. In winter, more widespread along central coast, and San Francisco Bay area.	Nests in dense blackberry, cattail, tules, bulrushes, sedges, willow, or wild rose within freshwater marshes. Nests in large colonies of at least 50 pairs (up to thousands of individuals).	**Low**. Although the riparian woodland does not provide suitable nesting habitat, the row crops and annual grassland provide upland foraging habitat. No CNDDB occurrences within 5 miles.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Burrowing owl (*Athene cunicularia*)	–/CC/SSC	Occurs in central and southern coastal habitats, Central Valley, Great Basin, and deserts. Formerly common in appropriate habitat throughout the state, excluding humid northwest coastal forests and high mountains. Present on larger offshore islands.	Prefers open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent on burrowing mammals (especially California ground squirrel) for burrows.	**Moderate (nesting and wintering).** Burrows within annual grassland and disturbed areas in the study area provide suitable nesting and wintering habitat (particularly around Cottonwood Creek Bridge abutments and around culverts), although no sign of burrowing owl was observed. No CNDDB occurrences within 5 miles.
Swainson's hawk (*Buteo swainsoni*)	–/CT/–	Occurs in the lower Sacramento and San Joaquin Valleys, the Klamath Basin, Northeastern plateau, Lassen County, and Mojave Desert.	Nests peripherally to valley riparian systems in lone trees or groves of trees in agricultural fields. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41–82 feet, are the most commonly used nest trees in the Central Valley.	**High**. Large trees in the study area provide nesting habitat, and the annual grassland and the agricultural areas provide foraging habitat. Documented presence with nesting in area along Cottonwood Creek. Two nesting records occur along Cottonwood Creek within the study area.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT/CE/–	Uncommon-to-rare summer resident in scattered locations throughout California. Breeding population along Colorado river, Sacramento, and Owen Valley, along South Fork of Kern River, Santa Ana River, and Amargosa River. May be present along San Luis Rey River.	Deciduous riparian thickets or forests with dense, low-level or understory foliage, which abut on slow-moving watercourses, backwaters, or seeps. Willow is almost always a dominant component of the vegetation. In Sacramento Valley, the species also utilizes adjacent orchards, especially walnuts. Nests in sites with some willows, dense, low-level, or understory foliage, high humidity, and wooded foraging spaces.	**Low**. Although willows are present in along Cottonwood Creek in the study area, they are scattered and not dense enough for this species to utilize.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Mammals				
Freno kangaroo rat (*Dipodomys nitratoides exilis*)	FE/CE/-	Historically found from Merced County south to Central Fresno County.	Found at elevations from 200–300 feet in alkali sink habitats, elevated grassy areas of alkali plains, and grassy areas with scattered alkali patches.	**None**. No suitable habitat is present within the study area.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE/CT/–	Occurs in San Joaquin Valley from San Joaquin County to Kern County, Panoche and Cuyama Valleys, and Carrizo Plain. The northernmost extent of this species range is Santa Nella in Merced County, between the western edge of the San Joaquin Valley floor, and the eastern edge of the coast range foothills (Transactions of the Western Section of the Wildlife Society 2007).	Prefers valley grassland and foothill woodland. Hunts in areas with low, sparse vegetation that allows good visibility and mobility. Pupping dens are built in loosely textured soils (Morrell 1972). May use pipes or culverts as den sites.	**Low.** Although burrows within annual grassland and around the Cottonwood Creek Bridge abutments provide habitat, the study area occurs outside of the known extant geographic range for this species. No CNDDB records for within 5 miles.
Pallid bat (*Antrozous pallidus*)	–/–/SSC	Occurs throughout California, except the High Sierra, from Shasta to Kern County, and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats, but most commonly found in dry, rocky areas; day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, tree hollows, and various human structures (e.g., bridges, barns, porches).	**Low (roosting)**. The box culvert within the study area provides potential night roosting habitat, and the Cottonwood Creek Bridge and Avenue 13 overpasses provide potential day and night roosting habitat. May forage over study area. No CNDDB occurrences within 5 miles.

Common Name (*Scientific Name*)	Status[1] (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Western mastiff bat (*Eumops perotis californicus*)	–/–/SSC	Uncommon resident in southeastern San Joaquin Valley and Coastal Ranges from Monterey County southward through southern California, from the coast eastward to the Colorado Desert.	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban.	**Low (roosting)**. The box culvert within the study area provides potential night roost habitat, and the Cottonwood Creek Bridge and Avenue 13 overpasses provide potential day and night roost habitat. May forage over study area. No CNDDB occurrences within 5 miles.
American badger (*Taxidea taxus*)	–/–/SSC	Found throughout most of California except northern North Coast area.	Shrub, forest, and herbaceous cover types with friable soils for digging burrows.	**Moderate.** The annual grassland provides habitat for this species. No CNDDB occurrences within 5 miles.

[1] Status codes:

Federal

FE = Federally listed as endangered under federal Endangered Species Act
FT = Federally listed as threatened under federal Endangered Species Act
FC = Federal candidate for listing under federal Endangered Species Act
SC = Proposed Federally listed as threatened under federal Endangered Species Act

State

CE = State listed as Endangered under California Endangered Species Act
CT = State listed as Threatened under California Endangered Species Act
CC = State candidate for listing under California Endangered Species Act

Other

SSC = California Species of Special Concern
CFP = California Fully Protected Species

3.2.1. Special-Status Plant Species

No special-status plants were observed during the April or July 2024 surveys of the accessible part of the study area. Because the inaccessible area was not surveyed, but supports seasonal wetland and annual grassland habitat, there is moderate to high potential for four special-status plants to occur in this unsurveyed area—succulent owl's clover (*Castilleja campestris* ssp. *succulentus*), Munz's tidy-tips (*Layia munzii*), shining navarretia (*Navarretia nigelliformis* ssp. *radians*), and hairy Orcutt grass (*Orcuttia pilosa*).

3.2.1.1. Succulent Owl's Clover

Succulent owl's clover is federally listed as Threatened, state-listed as Endangered, and is a CRPR 1B.2 species. This species is found in the lower rolling foothills areas of the eastern San Joaquin Valley in the Southern Sierra Foothills Vernal Pool Region (USFWS 2005). A majority of the occurrences are in eastern Merced County. Succulent owl's clover is a hemiparasitic annual that grows in vernal pools and typically blooms between March and May.

There is one CNDDB occurrence record for this species within 5 miles (USFWS 2024). Marginal habitat may occur in seasonal wetlands. This species has moderate potential to occur in the study area.

3.2.1.2. Munz's Tidy-Tips

A CRPR 1B.2 species that is not federally or state listed, Munz's tidy-tips is an annual that grows on alkaline clay soils in chenopod scrub and annual grassland habitats and typically blooms between March and April.

There is one historical CNDDB occurrence record for this species within 5 miles (USFWS 2024). Marginal habitat may occur in the annual grassland. This species has moderate potential to occur in the study area.

3.2.1.3. Shining Navarretia

Shining navarretia is a CRPR 1B.2 species that is not federally or state listed. The species is an annual that occurs in vernal pool, oak woodland, and annual grassland habitats and typically blooms between March and July (CNPS 2024).

There is one CNDDB occurrence record for this species within 5 miles (USFWS 2024). Marginal habitat may occur in seasonal wetlands. This species has moderate potential to occur in the study area.

3.2.1.4. Hairy Orcutt Grass

Hairy Orcutt grass is federally and state-listed as Endangered and is a CRPR 1B.1 species. This species is endemic to the eastern margins of the Central Valley. Historically, it occurred from Tehama County south to Merced and Madera Counties (CNPS 2024). Hairy Orcutt grass grows in vernal pools in rolling grasslands that developed on the remnant alluvial fans and stream terraces of the eastern edge of the Central Valley (CNPS 2024). Hairy Orcutt grass is a small, tufted annual in the grass family (*Poaceae*) that flowers between May and September (CNPS 2024). Plants typically produce several short stems, each with a dense inflorescence.

There are six CNDDB occurrence records for this species within 5 miles (USFWS 2024). Marginal habitat may occur in seasonal wetlands. The nearest recorded extant occurrences are 0.04 mile north of the study area. One occurrence, likely extirpated, is adjacent to the eastern side of the study area. This species has high potential to occur in the study area.

3.2.2. Special-Status Wildlife Species

3.2.2.1. Crotch's Bumble Bee

Crotch's bumble bee is a Candidate for listing as endangered under CESA (CDFW 2023). The current range of this species is from coastal California to the Sierra Nevada–Cascade Range Crest, extending into western and southern Nevada and into Baja California, Mexico (Koch et al. 2012; CDFW 2019). Habitat for this species includes grassland and scrub, but is not specific because the food plant genera *Antirrhinum, Asclepias, Phacelia, Chaenactis, Clarkia, Dendromecon, Eriogonum, Eschscholzia, Lupinus, Medicago*, and *Salvia* used by Crotch's bumble bee are widely distributed in different habitats (Koch et al. 2012; Williams et al. 2014). Like most other species of bumble bees, Crotch's bumble bees typically nest in underground cavities, such as animal burrows, although nests have also been reported in aboveground structures that provide suitable cavities (Koch et al. 2012).

The flight period for Crotch's bumble bee queens in California is from late February to late October, and the period for workers and males in California is from late March through September (CDFW 2019). Little is known about overwintering sites for queens, but other bumble bee species are known to overwinter in soft soil or under leaf litter and debris (CDFW 2019).

There are no CNDDB occurrence records for Crotch's bumble bee within 5 miles of the study area (CDFW 2024b). Suitable burrows and potential food sources (*Lupinus bicolor, Lupinus succulentus, Medicago polymorpha*, and *Phacelia cicutaria*) were observed during spring and summer 2024 surveys. Crotch's bumble bee has moderate potential to occur within the study area.

3.2.2.2. Vernal Pool Fairy Shrimp

Vernal pool fairy shrimp is entirely dependent on the aquatic environment provided by the temporary waters of natural vernal pool and playa pool ecosystems, as well as the artificial environments of ditches and tire ruts (59 FR 48136; USFWS 2007). The watershed extent that is necessary for maintaining the hydrological functions of the temporary waters depends on a number of complex factors, including soil properties, the existence of a perched aquifer overlying an impermeable soil layer, slope, effects of vegetation on evapotranspiration rates, compaction of surface soils by grazing animals, and other factors (USFWS 2007). The temporary waters that serve as habitat for the vernal pool fairy shrimp are extremely variable and range from clear sandstone pools to turbid, alkaline vernal pools (USFWS 2005). Vernal pool fairy shrimp have also been found in degraded vernal pool habitats and artificially created seasonal pools (Helm 1998).

There are six CNDDB occurrence records for vernal pool fairy shrimp within 5 miles of the study area, and two documented within 0.5 mile of the study area (CDFW 2024b). The closest documented locations occur in the seasonal wetland (southeast of Avenue 13) and vernal pool habitat (southwest of Avenue 12) just outside of the study area. Both locations have documented occurrences of other wetland and/or vernal pool species. Vernal pool fairy shrimp were not observed during surveys; however, protocol-level surveys have not been conducted. The seasonal wetlands within the study area (SJJPA 2021) provide habitat for this species. Based on suitable habitat and CNDDB records, vernal pool fairy shrimp have high potential to occur.

3.2.2.3. Swainson's Hawk

Swainson's hawk is listed as Threatened under CESA, but holds no federal status. Swainson's hawk nests in the grassland plains and agricultural regions of western North America, from southern Canada (and possibly in the northern provinces and territories and Alaska) to northern Mexico (CDFW 2016; Bechard et al. 2020).

In the Central Valley, nests are constructed in riparian woodlands, isolated trees, trees along roadsides, bordering fields, along the edges of remnant oak woodlands, and in small groves (Estep 2008). The

majority of known nests in the Central Valley occur along narrow stringers of remnant riparian forest (Estep 1989, 2008; Bechard et al. 2020). Nest construction usually occurs as close to the top of the tree as possible, due to optimal visibility and nest protection from predators (Estep 2008). Swainson's hawks most commonly nest in large native trees, such as valley oak (*Quercus lobata*), Fremont cottonwood , Hinds' walnut (*Juglans hindsii*), and willow, and in nonnative trees, such as eucalyptus (*Eucalyptus* spp.) (Estep 2007, 2008). Nesting pairs will often use the same nesting territories and nesting trees year after year (Estep 2008). Many nest sites in the Central Valley have been occupied annually since 1979, and banding studies have shown a high degree of both nest and mate fidelity (Estep 2008).

Swainson's hawk historically foraged in open grasslands and prairies; however, with substantial conversion of grasslands for farming practices, Swainson's hawks have shifted their foraging to agricultural lands that provide large, rodent-prey populations amid low, open vegetation. Swainson hawk nesting season is typically March 1–September 15 (CDFW 2016).

There are two CNDDB occurrence records for Swainson's hawk within 5 miles of the study area and documented nesting along Cottonwood Creek, which overlaps the study area (CDFW 2024b). Swainson's hawks were observed foraging and flying over the study area during the May 2024 surveys. Swainson's hawk has a high potential to occur within the study area due to the documented breeding presence and the existence of suitable nesting habitat within 0.5 mile of the study area.

3.2.2.4. Burrowing Owl

Burrowing owl is a state Candidate species under CESA. Burrowing owls are found in open, well-drained grasslands, agricultural and range lands, and desert habitats often associated with burrowing animals. They also occupy golf courses, airports, road and levee embankments, and other disturbed sites where there is sufficient friable soil for burrows (Wilkerson and Siegel 2010; Gervais et al. 2008; Poulin et al. 2020). Because burrowing owls typically use the burrows created by other species, particularly the California ground squirrel (*Otospermophilus beecheyi*), the presence of these species is usually a key indicator of potential occurrence of burrowing owls (Poulin et al. 2020). Other mammal burrows and various burrow surrogates, such as culverts, pipes, rock piles, and artificially constructed burrows, are also used (Rosenberg et al. 1998). Burrowing owls forage in open grasslands, pastures, agricultural fields and field edges, fallow fields, and along the edges of roads and levees. Burrowing owls may use burrows in open areas adjacent to unimproved and improved roads (Wilkerson and Siegel 2010); a modest volume of vehicle traffic does not appear to significantly affect behaviors or reproductive success (Plumpton and Lutz 1993), but presumably may also be a source of collision-related mortality (Rosenberg et al. 2009).

There are no CNDDB occurrence records for burrowing owl within 5 miles of the study area (CDFW 2024b). The annual grassland and disturbed areas found throughout the study area provide suitable habitat for burrowing and foraging. Mammal burrows are present within the study area, particularly around Cottonwood Creek Bridge abutments and around culverts, and provide suitable habitat for nesting or overwintering. Based on suitable habitat, burrowing owls have moderate potential to occur in the study area.

3.2.2.5. California Tiger Salamander

California tiger salamander – Central California Distinct Population Segment is listed as Threatened under both FESA and CESA. California tiger salamander is endemic to the San Joaquin–Sacramento River valleys, bordering foothills, and coastal valleys of central California (Barry and Shaffer 1994).

California tiger salamander is restricted to grasslands and low foothill regions where breeding habitat is present (Jennings and Hayes 1994). Breeding habitat consists of temporary ponds or pools, slower portions of streams, and some permanent water bodies. Breeding generally occurs from December

through March (Stebbins 2003). In drought years, seasonal pools may not pond, and the adults may not breed (Barry and Shaffer 1994). California tiger salamanders also require dry-season refuge sites in the vicinity of breeding sites (i.e., within 1 mile; Jennings and Hayes 1994). California ground squirrel burrows are important dry-season refuge sites for adults and juveniles (Loredo et al. 1996). Juvenile and adult California tiger salamanders spend the dry summer and fall months of the year in the burrows of small mammals, such as California ground squirrels and Botta's pocket gopher (*Thomomys bottae*) (Loredo et al. 1996; Barry and Shaffer 1994).

There are 11 CNDDB occurrence records for California tiger salamander within 5 miles of the study area, and two records that overlap the study area near Avenue 12 (CDFW 2024b). Cottonwood Creek (when ponded), seasonal wetlands (SJJPA 2021), and agricultural ditches all provide suitable aquatic habitat, whereas annual grasslands found throughout the study area provide suitable upland habitat. Based on the number of occurrences, record details, and suitable habitat present, California tiger salamander has a high potential to occur within the study area.

3.2.2.6. Western Spadefoot

Western spadefoot is proposed as Threatened under FESA and is a state SSC. Western spadefoot habitat is primarily open grasslands, scrub, or mixed woodland and grassland, where aquatic breeding habitat is available (Stebbins and McGinnis 2012). Western spadefoots require both aquatic and terrestrial components near one another; however, they are primarily terrestrial and require upland habitats for feeding and burrow construction.

During a majority of their life cycle, western spadefoot remains in a torpor state in underground burrows in upland areas surrounding their aquatic (breeding) habitat (Ruibal et al. 1969). Spadefoots emerge from their burrows to forage and breed in ephemeral pools following seasonal rains in winter and spring (Dimmitt and Ruibal 1980; Jennings and Hayes 1994; Thomson et al. 2016).

There are 22 CNDDB occurrence records for western spadefoot within 5 miles of the study area, and four records overlap the study area near Avenue 12 (CDFW 2024b). All life stages (i.e., egg masses, larvae, and adults) of western spadefoot were documented within the study area during excavation for previous HSR construction (CDFW 2024b). All toads were relocated to a vernal pool within 0.5 mile of the study area. Cottonwood Creek (when ponded), seasonal wetlands (SJJPA 2021), and agricultural ditches all provide suitable aquatic habitat, whereas annual grasslands found throughout the study area provide suitable upland habitat. Based on the number of occurrences, record details, and suitable habitat present, western spadefoot has a high potential to occur within the study area.

3.2.2.7. Western Pond Turtle

Western pond turtle is under review for listing under FESA and is a CDFW SSC. Northwestern pond turtles are a highly aquatic species and can be found in a variety of habitat types, including streams, rivers, sloughs, lakes, ponds, reservoirs, marshes, seasonal ponds, and other wetland habitats (Thomson et al. 2016). They require basking sites, such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks for thermoregulation, and access to suitable upland habitat with loose soils for nesting, dispersal, and overwintering (Thomson et al. 2016). Proximity of nesting site to aquatic habitat is dependent on availability, and the nest site is usually within 300 feet of the aquatic habitat, but can be up to 1,640 feet away (Thomson et al. 2016).

There are no CNDDB occurrence records for western pond turtle within 5 miles of the study area (CDFW 2024b). Cottonwood creek, when flowing, provides suitable aquatic habitat, and annual grassland present throughout the study area provides suitable upland habitat for western pond turtle. Based on suitable habitat, western pond turtle has moderate potential to occur in the study area.

3.2.2.8. Northern California Legless Lizard

Northern California legless lizard is identified as a CDFW SSC and has no federal status. Northern California legless lizard is regionally found in coastal sand dunes, chaparral, pine–oak woodland, desert scrub, open grassland, and riparian areas (Thomson et al. 2016). Microhabitat requirements include sandy or loose, loamy substrates conducive to burrowing (Thomson et al. 2016); the species may prefer lower-lying areas in dune habitat due to the presence of increased soil moisture (Kuhnz et al. 2005).

There are no CNDDB occurrence records for Northern California legless lizard within 5 miles of the study area (CDFW 2024b). The annual grasslands present throughout the study area provide suitable habitat for Northern California legless lizard. Based on suitable habitat, Northern California legless lizard has moderate potential to occur in the study area.

3.2.2.9. California Glossy Snake

California glossy snake is identified as a CDFW SSC and has no federal status. California glossy snakes are found in open areas in deserts, grasslands, shrublands, chaparral, and woodlands. California glossy snake prefers sandy soil habitats, such as coastal dunes, alluvial creek beds, and ancient dunes on the marine terraces. They are known to retreat to burrows during the day, using either existing mammal burrows or excavations under rocks, or by creating burrows themselves (Thomson et al. 2016).

There are no CNDDB occurrence records for California glossy snake within 5 miles of the study area (CDFW 2024b). The annual grasslands present throughout the study area provide suitable habitat for California glossy snake. Based on suitable habitat, California glossy snake has moderate potential to occur in the study area.

3.2.2.10. Coast Horned Lizard

Coast horned lizard is a CDFW SSC and has no federal status. Coast horned lizards are found in a wide variety of habitat types, including sage scrub, dunes, alluvial scrub, annual grassland, chaparral, oak woodland, riparian woodland, coniferous forest, Joshua tree woodland, and saltbush scrub (Thomson et al. 2016). In these habitats, coast horned lizard requires loose, fine soils for burrowing, open areas for thermoregulation, and shrub cover for refugia (Thomson et al. 2016). In the absence of shrub cover, they can utilize small mammal burrows, such as those of the California kangaroo rat (*Dipodomys californicus;* Shedd et al. 2011).

There are no CNDDB occurrence records for coast horned lizard within 5 miles of the study area (CDFW 2024b). The annual grasslands present throughout the study area provide suitable habitat for coast horned lizard. Based on suitable habitat, coast horned lizard has moderate potential to occur in the study area.

3.2.2.11. American Badger

American badger is a CDFW SSC and holds no federal status. American badger inhabits a variety of open, arid habitats, but is most abundant in drier, open stages of most shrub, forest, and herbaceous habitats with friable soils for burrowing. Home range typically varies in size between 5 and 1,800 acres, but can become much larger during breeding season, as males locate receptive females. Natal dens are constructed in dry, sandy soil with sparse overstory (Ahlborn 1990).

There are no CNDDB occurrence records for American badger within 5 miles of the study area (CDFW 2024b). The annual grasslands present throughout the study area provide suitable habitat for American badger. Based presence of suitable habitat, American badger has moderate potential to occur within the study area.

3.2.2.12. Non-Special-Status Migratory Birds

Non-special-status migratory and passerine birds and raptors have the potential to nest and forage on the ground, within the trees, and under the bridges in the study area. The breeding season for nesting birds and raptors generally extends from February 1 through August 31, although nesting periods vary by species.

3.3. Sensitive Natural Communities

Special-status or *sensitive natural communities* are communities (i.e., vegetation types) that are of limited distribution statewide or within a county or region. CDFW's Vegetation Classification and Mapping Program works to classify and map the vegetation of California and determine the rarity of vegetation types. Vegetation types with a state rarity ranking of S1 through S3 in CDFW's *List of Vegetation Alliances and Associations* (Natural Communities List; CDFG 2010) are considered to be highly imperiled, and proposed Project impacts on high-quality occurrences of these vegetation types are typically considered significant under CEQA.

CDFW lists three regionally occurring sensitive natural communities on the CNDDB list (CDFW 2024a): northern hardpan vernal pool, northern claypan vernal pool, and Great Valley mixed riparian. The CNDDB includes two records of the northern hardpan vernal pool within 5 miles of the study area. However, these natural communities are not present within the study area.

Sensitive natural communities within the study area include Cottonwood Creek and seasonal wetlands. Cottonwood Creek and the seasonal wetlands are considered potentially jurisdictional waters of the United States and waters of the State, which are discussed below. No other sensitive natural community occurs within the study area.

3.4. Aquatic Resources

Agricultural ditches are created in uplands to convey irrigation water to other agricultural areas. These features are routinely relocated, depending on annual irrigation needs. For these reasons, the agricultural ditches within the study area would not qualify as a waters of the United States or waters of the State.

Aquatic resources within the study area include Cottonwood Creek (riverine) and seasonal wetlands. These aquatic features are considered potentially jurisdictional waters of the United States and waters of the State. No formal delineation has been conducted within the study area.

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APPENDIX A-1: REGULATORY SETTING

A-1.1. Federal and State Endangered Species Laws

A-1.1.1. Federal Endangered Species Act

FESA and subsequent amendments provide for the conservation of listed Endangered or Threatened species or Candidates for listing and the ecosystems on which they depend. USFWS has jurisdiction over federally listed plants, wildlife, and resident fish, and NMFS has jurisdiction over anadromous fish and marine fish and mammals.

A-1.1.2. Endangered Species Act Authorization Process for Federal Actions (Section 7)

Under the Federal Endangered Species Act (FESA), *take* means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Section 7 of FESA provides a means for authorizing take of threatened and endangered species by federal agencies and applies to actions that are conducted, permitted, or funded by a federal agency. Under FESA Section 7, the lead federal agency conducting, funding, or permitting an action must consult with USFWS or NMFS, as appropriate, to ensure that a proposed action will not jeopardize the continued existence of an endangered or threatened species or destroy or adversely modify designated critical habitat. If a proposed action may affect a listed species or designated critical habitat, then the lead agency is required to prepare a biological assessment evaluating the nature and severity of the expected effect. In response, USFWS or NMFS issues a biological opinion, with one of the following determinations about the proposed action.

- May jeopardize the continued existence of one or more listed species (jeopardy finding) or result in the destruction or adverse modification of critical habitat (adverse modification finding), or
- Will not jeopardize the continued existence of any listed species (no jeopardy finding) or result in adverse modification of critical habitat (no adverse modification finding).

The biological opinion issued by USFWS or NMFS may stipulate mandatory reasonable and prudent measures and terms and conditions. If it is determined a project would not jeopardize the continued existence of a listed species, then USFWS or NMFS would issue an incidental take statement to authorize the proposed activity.

A-1.1.3. Endangered Species Act Prohibitions (Section 9)

FESA Section 9 prohibits removing, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Take of threatened species is also prohibited under Section 9, unless otherwise authorized by federal regulations.

A-1.1.4. California Endangered Species Act

CESA prohibits take of wildlife and plants listed as threatened or endangered by the California Fish and Game Commission. *Take* is defined under the CFGC (more narrowly than under FESA) as any action or attempt to "hunt, pursue, catch, capture, or kill." Therefore, *take* under CESA does not include "the taking of habitat alone or the impacts of the taking" (Environmental Council of Sacramento v. City of Sacramento, 142 Cal. App. 4th 1018 [2006]). Rather, the courts have affirmed that under CESA, "taking involves mortality." CDFW administers the act and authorizes take through Section 2081 agreements (except for species designated as fully protected).

A-1.1.5. California Native Plant Protection Act

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and sale of rare and endangered plants. CESA defers to the California Native Plant Protection Act, which ensures that state-listed plant species are protected when state agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA, but rather under CEQA.

A-1.2. Other Federal and State Wildlife Laws and Regulations

A-1.2.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918, as amended (MBTA), implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (U.S. Government Code [USC], title 16 § 703). *Take* is defined more narrowly under the MBTA than under FESA and includes only the death or injury of individuals of a migratory bird species or their eggs. As such, take under the MBTA does not include the concepts of harm and harassment as defined under FESA. The MBTA defines migratory birds broadly; all birds native to North America are considered migratory birds under the MBTA.

A-1.2.3 California Fish and Game Code Section 3503 (Bird Nests)

Section 3503 of the CFGC makes it "unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Therefore, CDFW may issue permits authorizing take.

Section 3503.5 of the CFGC prohibits the take, possession, or destruction of any birds of prey or their nests or eggs "except as otherwise provided by this code or any regulation adopted pursuant thereto."

A-1.2.4 California Fully Protected Species

In the 1960s, before CESA was enacted, the California legislature identified specific species for protection under the CFGC. These *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 bird species for the protection of livestock. Fully protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the CFGC. These protections state that "…no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected [bird], [mammal], [reptile or amphibian], [fish]."

A-1.3. Federal and State Wetland Laws and Regulations

A-1.3.1 Clean Water Act Section 404

The Clean Water Act (CWA) was enacted as an amendment to the Federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

The CWA empowers the U.S. Environmental Protection Agency to set national water quality standards and effluent limitations and includes programs addressing both point-source and nonpoint-source pollution. *Point-source pollution* is pollution that originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. *Nonpoint-source pollution* originates over a broader area and includes urban contaminants in stormwater runoff and sediment

loading from upstream areas. The CWA operates on the principle that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit; permit review is the CWA's primary regulatory tool. The following section provide additional details on specific sections of the CWA.

A-1.3.2.1 Clean Water Act Section 401 and the Porter–Cologne Water Quality Control Act

Under CWA Section 401, states have the authority to certify federal permits for discharges to waters under state jurisdiction. States may review proposed federal permits (e.g., Section 404 permits) for compliance with state water quality standards. The permit cannot be issued if the state denies certification. In California, the State Water Resources Control Board and the Regional Water Quality Control Boards (RWQCBs) are responsible for the issuance of Section 401 certifications.

The Porter–Cologne Water Quality Control Act is the primary state law concerning water quality. It authorizes the State Water Resources Control Board and RWQCBs to prepare management plans, such as regional water quality plans, to address the quality of groundwater and surface water. The Porter–Cologne Water Quality Control Act also authorizes the RWQCBs to issue waste-discharge requirements defining limitations on allowable discharge to waters of the State. In addition to issuing Section 401 certifications on Section 404 applications to fill waters, the RWQCBs may also issue waste-discharge requirements for such activities. Because the authority for waste discharge requirements is derived from the Porter–Cologne Water Quality Control Act ,and not the CWA, waste-discharge requirements may apply to a somewhat different range of aquatic resources than do Section 404 permits and Section 401 Water Quality certifications. Applicants that obtain a permit from the U.S. Army Corps of Engineers under Section 404 must also obtain certification of that permit by the RWQCB with jurisdiction over the project site.

A-1.3.3 California Fish and Game Code Section 1602 (Lake or Streambed Alteration Program)

CDFW has jurisdictional authority over streams, lakes, and wetland resources associated with aquatic systems under CFGC Section 1600 et seq, which was repealed and replaced in October 2003 with new Sections 1600–1616 that took effect on January 1, 2004. CDFW has the authority to regulate work that will "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." Activities of any person, state, or local governmental agency or public utility are regulated by CDFW under Section 1602 of the CFGC. CDFW enters into a Streambed or Lakebed Alteration Agreement with the project proponent and can impose conditions on the agreement to ensure that no net loss of values or acreage of the stream, lake, associated wetlands, and associated riparian habitat occurs.

The Lake or Streambed Alteration Agreement is not a permit, but rather a mutual agreement between CDFW and the project proponent. Because CDFW includes under its jurisdiction streamside habitats that may not qualify as wetlands under the CWA definition, CDFW jurisdiction may be broader than U.S. Army Corps of Engineers jurisdiction.

A project proponent must submit a *Notification of Streambed Alteration* to CDFW before construction. The notification requires an application fee for streambed alteration agreements, with a specific fee schedule to be determined by CDFW.

A-1.4. Local Policies

A-1.4.1. Madera General Plan

The study area is within the *Madera County General Plan* planning area (County of Madera 1995). Part II, Section 5, *Agricultural and Natural Resources*, includes policies for protecting biological resources. The following policies are related to biological resources.

- **Policy 5.D.1**: The County shall comply with the wetlands policies of the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife. Coordination with these agencies at all levels of project review shall continue to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed.
- **Policy 5.D.2**: The County shall require new developments to mitigate wetland loss in both regulated and non-regulated wetlands through any combination of avoidance, minimization, or compensation. The County shall support mitigation banking programs that can provide the opportunity to mitigate impacts to rare, threatened, and endangered species and/or the habitat which supports these species in wetland and riparian areas.
- **Policy 5D.3**: The County shall require development to be designed in such a manner that pollutants and siltation will not significantly adversely affect the value or function of wetlands.
- **Policy 5.D.4**: The County shall require riparian protection zones around natural watercourses. Riparian protection zones shall include the bed and bank of both low and high flow channels and associated riparian vegetation, the band of riparian vegetation outside the high flow channel, and buffers of 100 feet in width as measured from the top of bank of unvegetated channels and 50 feet in width as measured from the outer edge for the canopy of riparian vegetation. Exceptions may be made in existing developed areas where existing development and lots are located within the setback areas.
- **Policy 5.D.5**: The County shall strive to identify and conserve remaining upland habitat areas adjacent to wetlands and riparian areas that are critical to the feeding or nesting of wildlife species associated with these wetland and riparian areas.
- **Policy 5.D.6**: The County shall require new private or public developments to preserve and enhance existing native riparian habitat unless public safety concerns require removal of habitat for flood control or other public purposes. In cases where new private or public development results in modification or destruction of riparian habitat for purposes of flood control, the developers shall be responsible for creating new riparian habitats within or near the project area at a ratio of 3:1 acres of new habitat for every acre destroyed.
- **Policy 5.E.10**: Prior to approval of discretionary development permits involving parcels within a significant ecological resource area, the County shall require, as part of the environmental review process, a biotic resources evaluation of the sites by a qualified biologist. The evaluation shall be based on field reconnaissance performed at the appropriate time of year to determine the presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation will consider the potential for significant impact on these resources and will either identify feasible measures to mitigate such impacts or indicate why mitigation is not feasible.
- **Policy 5.F.2**: The County shall require developers to use native and compatible non-native species, especially drought-resistant species, to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permit approval or for project mitigation.
- **Policy 5.F.5**: The County shall establish procedures for identifying and preserving rare, threatened, and endangered plant species that may be adversely affected by public or private development projects.

APPENDIX A-2: CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, CALIFORNIA NATIVE PLANT SOCIETY, AND U.S. FISH AND WILDLIFE SPECIES LISTS

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Daulton (3711918) OR Little Table Mtn. (3711917) OR Gregg (3611988) OR Herndon (3611978) OR Lanes Bridge (3611987) OR Fresno North (3611977) OR Biola (3612071) OR Madera (3612081) OR Kismet (3712011))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAA01181	***Ambystoma californiense pop. 1*** California tiger salamander - central California DPS	Threatened	Threatened	G2G3T3	S3	WL
AAABF02020	***Spea hammondii*** western spadefoot	Proposed Threatened	None	G2G3	S3S4	SSC
ABNGA04040	***Ardea alba*** great egret	None	None	G5	S4	
ABNGA06030	***Egretta thula*** snowy egret	None	None	G5	S4	
ABNGA11010	***Nycticorax nycticorax*** black-crowned night heron	None	None	G5	S4	
ABNKC19070	***Buteo swainsoni*** Swainson's hawk	None	Threatened	G5	S4	
ABNRB02022	***Coccyzus americanus occidentalis*** western yellow-billed cuckoo	Threatened	Endangered	G5T2T3	S1	
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S2	SSC
ABPAT02011	***Eremophila alpestris actia*** California horned lark	None	None	G5T4Q	S4	WL
ABPBXB0020	***Agelaius tricolor*** tricolored blackbird	None	Threatened	G1G2	S2	SSC
AFCJB25010	***Mylopharodon conocephalus*** hardhead	None	None	G3	S3	SSC
AMACC05032	***Lasiurus cinereus*** hoary bat	None	None	G3G4	S4	
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G4	S3	SSC
AMACD02011	***Eumops perotis californicus*** western mastiff bat	None	None	G4G5T4	S3S4	SSC
AMAFD01060	***Perognathus inornatus*** San Joaquin pocket mouse	None	None	G2G3	S2S3	
AMAFD03151	***Dipodomys nitratoides exilis*** Fresno kangaroo rat	Endangered	Endangered	G2TH	SH	
AMAJA03041	***Vulpes macrotis mutica*** San Joaquin kit fox	Endangered	Threatened	G4T2	S3	
AMAJF04010	***Taxidea taxus*** American badger	None	None	G5	S3	SSC
ARAAD02031	***Actinemys marmorata*** northwestern pond turtle	Proposed Threatened	None	G2	SNR	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ARACC01020	***Anniella pulchra*** Northern California legless lizard	None	None	G3	S2S3	SSC
ARACF07010	***Gambelia sila*** blunt-nosed leopard lizard	Endangered	Endangered	G1	S2	FP
ARACF12100	***Phrynosoma blainvillii*** coast horned lizard	None	None	G4	S4	SSC
ARADB01017	***Arizona elegans occidentalis*** California glossy snake	None	None	G5T2	S2	SSC
CTT44110CA	***Northern Hardpan Vernal Pool*** Northern Hardpan Vernal Pool	None	None	G3	S3.1	
CTT44120CA	***Northern Claypan Vernal Pool*** Northern Claypan Vernal Pool	None	None	G1	S1.1	
CTT61420CA	***Great Valley Mixed Riparian Forest*** Great Valley Mixed Riparian Forest	None	None	G2	S2.2	
ICBRA03030	***Branchinecta lynchi*** vernal pool fairy shrimp	Threatened	None	G3	S3	
ICBRA03150	***Branchinecta mesovallensis*** midvalley fairy shrimp	None	None	G2	S2S3	
ICBRA06010	***Linderiella occidentalis*** California linderiella	None	None	G2G3	S2S3	
IICOL48011	***Desmocerus californicus dimorphus*** valley elderberry longhorn beetle	Threatened	None	G3T3	S3	
IICOL4C020	***Lytta moesta*** moestan blister beetle	None	None	G2	S2	
IICOL4C030	***Lytta molesta*** molestan blister beetle	None	None	G2	S2	
IIDIP07010	***Efferia antiochi*** Antioch efferian robberfly	None	None	G1G2	S1S2	
IIDIP08010	***Metapogon hurdi*** Hurd's metapogon robberfly	None	None	G1G2	S1S2	
IIHYM24260	***Bombus pensylvanicus*** American bumble bee	None	None	G3G4	S2	
IIHYM24480	***Bombus crotchii*** Crotch's bumble bee	None	Candidate Endangered	G2	S2	
PDAPI0Z0Y0	***Eryngium spinosepalum*** spiny-sepaled button-celery	None	None	G2	S2	1B.2
PDAST1P040	***Calycadenia hooveri*** Hoover's calycadenia	None	None	G2	S2	1B.3
PDAST5N0B0	***Layia munzii*** Munz's tidy-tips	None	None	G2	S2	1B.2
PDBOR0A190	***Cryptantha hooveri*** Hoover's cryptantha	None	None	GH	SH	1A

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDBRA31010	***Caulanthus californicus*** California jewelflower	Endangered	Endangered	G1	S1	1B.1
PDFAB2B103	***Lupinus citrinus var. citrinus*** orange lupine	None	None	G2T2	S2	1B.2
PDPLM09130	***Leptosiphon serrulatus*** Madera leptosiphon	None	None	G3	S3	1B.2
PDPLM0C0J2	***Navarretia nigelliformis ssp. radians*** shining navarretia	None	None	G4T2T3	S2S3	1B.2
PDPLM0C0X1	***Navarretia myersii ssp. myersii*** pincushion navarretia	None	None	G2T2	S2	1B.1
PDSCR0D3Z1	***Castilleja campestris var. succulenta*** succulent owl's-clover	Threatened	Endangered	G4?T2T3	S2S3	1B.2
PMALI040Q0	***Sagittaria sanfordii*** Sanford's arrowhead	None	None	G3	S3	1B.2
PMPOA3D020	***Imperata brevifolia*** California satintail	None	None	G3	S3	2B.1
PMPOA4G040	***Orcuttia pilosa*** hairy Orcutt grass	Endangered	Endangered	G1	S1	1B.1
PMPOA4G060	***Orcuttia inaequalis*** San Joaquin Valley Orcutt grass	Threatened	Endangered	G1	S1	1B.1
PMPOA6N010	***Tuctoria greenei*** Greene's tuctoria	Endangered	Rare	G1	S1	1B.1

Record Count: 51

CALIFORNIA NATIVE PLANT SOCIETY

Search Results

16 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3711918:3711917:3611988:3611978:3611987:3611977:3612071:3612081:3712011**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Calycadenia hooveri	Hoover's calycadenia	Asteraceae	annual herb	Jul-Sep	None	None	G2	S2	1B.3	Yes	1980-01-01	No Photo Available
Castilleja campestris var. *succulenta*	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
Caulanthus californicus	California jewelflower	Brassicaceae	annual herb	Feb-May	FE	CE	G1	S1	1B.1	Yes	1984-01-01	No Photo Available
Cryptantha hooveri	Hoover's cryptantha	Boraginaceae	annual herb	Apr-May	None	None	GH	SH	1A	Yes	1974-01-01	No Photo Available
Delphinium hansenii ssp. *ewanianum*	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	None	None	G4T3	S3	4.2	Yes	1994-01-01	No Photo Available
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual/perennial herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1980-01-01	No Photo Available
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	None	None	G3	S3	2B.1		2006-12-26	 © 2020 Matt C. Berger
Layia munzii	Munz's tidy-tips	Asteraceae	annual herb	Mar-Apr	None	None	G2	S2	1B.2	Yes	1988-01-01	 © 2017 Neal Kramer
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	annual herb	Apr-May	None	None	G3	S3	1B.2	Yes	1980-01-01	 © 2008 Chris Winchell
Lupinus citrinus var. *citrinus*	orange lupine	Fabaceae	annual herb	Apr-Jul	None	None	G2T2	S2	1B.2	Yes	1974-01-01	No Photo Available
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994-01-01	 © 2020 Leigh Johnson

Navarretia nigelliformis ssp. *radians*	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	None	None	G4T2T3	S2S3	1B.2	Yes	1994-01-01	No Photo Available
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	FT	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Orcuttia pilosa	hairy Orcutt grass	Poaceae	annual herb	May-Sep	FE	CE	G1	S1	1B.1	Yes	1980-01-01	 © 2003 George W. Hartwell
Sagittaria sanfordii	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
Tuctoria greenei	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 16 of 16 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 23 October 2024].

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

( ) -
( ) -

Federal Building
Cottage Way, oom W-
Sacramento, CA -

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 in uence (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 ow 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 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 egulatory eview 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

. raw the project location and click CONTINUE.
. Click EFINE P O ECT.
. og in (if directed to do so).
. Provide a name and description for your project.
. Click E UEST SPECIES IST.

isted 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.

. 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 FA).

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

The following species are potentially affected by activities in this location

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NAME	STATUS
Fresno angaroo at Dipodomys nitratoides exilis 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 oaquin it Fox Vulpes macrotis mutica Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

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

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NAME	STATUS

California Tiger Salamander Ambystoma californiense — Threatened

There is **final** critical habitat for this species Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/2076

Western Spadefoot Spea hammondii — Proposed Threatened

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/5425

n ect

NAME	STATUS

Monarch Butter y Danaus plexippus — Candidate

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

alley Elderberry onghorn 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

tacean

NAME	STATUS

Conservancy Fairy Shrimp Branchinecta conservatio — 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/8246

ernal 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

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NAME	STATUS
Fleshy Owl's-clover Castilleja campestris ssp. succulenta Wherever found There is **final** critical habitat for this species Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8095	Threatened
Hairy Orcutt rass Orcuttia pilosa 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	Endangered

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Potential effects to critical habitat(s) in this location must be analy ed 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 olden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organi ation who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the Supplemental Information on Migratory Birds and Eagles .

Additional information can be found using the following links

- Eagle Managementhttps //www.fws.gov/program/eagle-management
- Measures for avoiding and minimi ing impacts to birds https //www.fws.gov/library/collections/avoiding-and-minimi ing-incidental-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

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimi ation measures to reduce impacts to migratory birds on your list, see the P OBABI IT OF P ESENCE SUMMA below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
olden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds an to Aug

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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 minimi e impacts to birds. Please make sure you read Supplemental Information on Migratory Birds and Eagles, specifically the FA section titled Proper Interpretation and Use of our Migratory Bird eport before using or attempting to interpret this report.

Probability of Presence( )

Each green bar represents the bird's relative probability of presence in the km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as -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

. 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 there were survey events and the Spotted Towhee was found in of them, the probability of presence of the Spotted Towhee in week is . .
. 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 for the Spotted Towhee is . , and that the probability of presence at week (.) is the maximum of any week of the year. The relative probability of presence on week is . / . at week it is . / . . .
. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between and , 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.

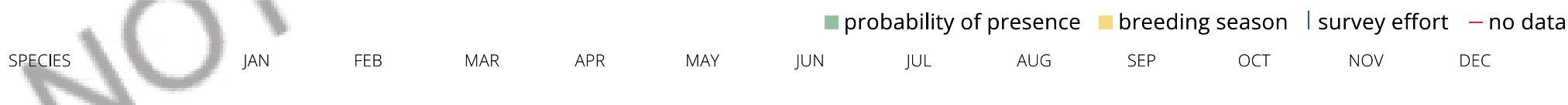
Breeding Season ( )
ellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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



Golden Eagle
Non-BCC Vulnerable

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 Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the Supplemental Information on Migratory Birds and Eagles.

. The Migratory Birds Treaty Act of .
. The Bald and olden Eagle Protection Act of .

Additional information can be found using the following links

- Eagle Management https //www.fws.gov/program/eagle-management
- Measures for avoiding and minimi ing impacts to birds https //www.fws.gov/library/collections/avoiding-and-minimi ing-incidental-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

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

For guidance on when to schedule activities or implement avoidance and minimi ation measures to reduce impacts to migratory birds on your list, see the P OBABI IT OF P ESENCE SUMMA below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Belding's Savannah Sparrow Passerculus sandwichensis beldingi 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/8	Breeds Apr to Aug
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar to ul

California ull Larus californicus — Breeds Mar to ul

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

Common ellowthroat Geothlypis trichas sinuosa — Breeds May to ul

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/2084

olden Eagle Aquila chrysaetos — Breeds an to Aug

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

awrence's oldfinch Spinus lawrencei — Breeds Mar to Sep

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Northern Harrier Circus hudsonius — Breeds Apr to Sep

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/8350

Nuttall's Woodpecker Dryobates nuttallii — Breeds Apr to ul

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

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

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 to Aug

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Western Screech-owl Megascops kennicottii cardonensis — Breeds Mar to un

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

ellow-billed Magpie Pica nuttalli — Breeds Apr to ul

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

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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 minimi e impacts to birds. Please make sure you read Supplemental Information on Migratory Birds and Eagles, specifically the FA section titled Proper Interpretation and Use of our Migratory Bird eport before using or attempting to interpret this report.

Probability of Presence(■)

Each green bar represents the bird's relative probability of presence in the km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as -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

. 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 there were survey events and the Spotted Towhee was found in of them, the probability of presence of the Spotted Towhee in week is . .
. 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 for the Spotted Towhee is . , and that the probability of presence at week (.) is the maximum of any week of the year. The relative probability of presence on week is . / . at week it is . / . . .

. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between and , 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 ( )

ellow 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 ( )

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

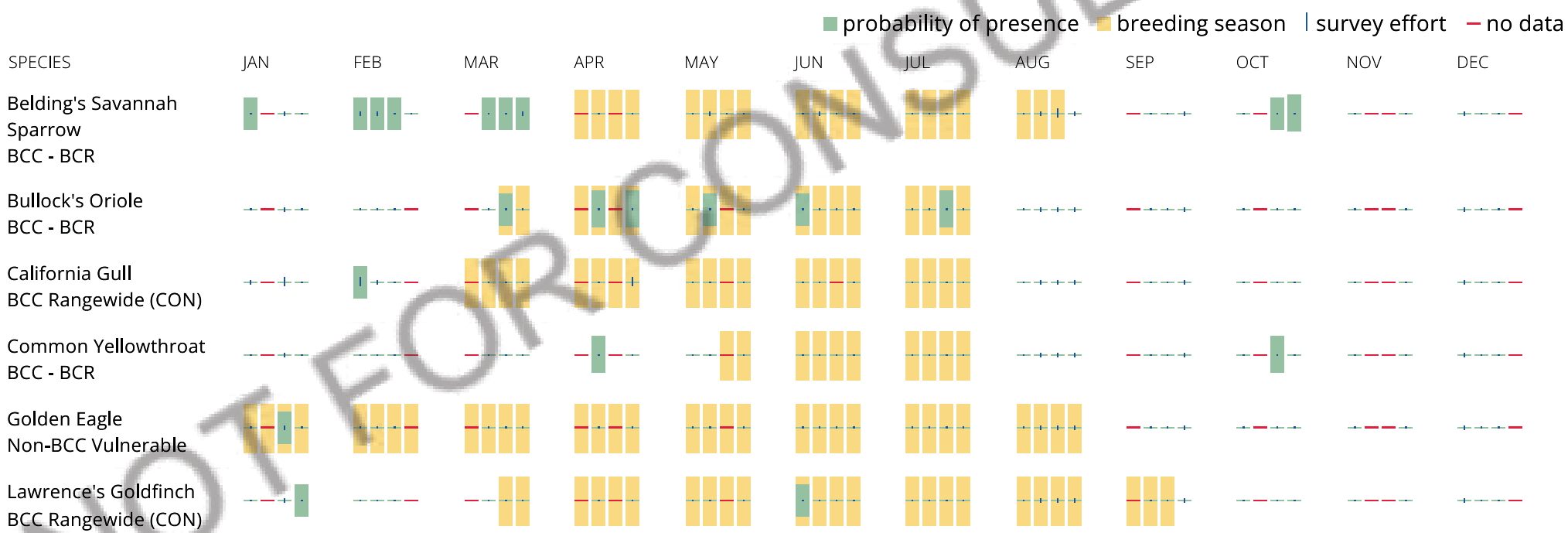
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

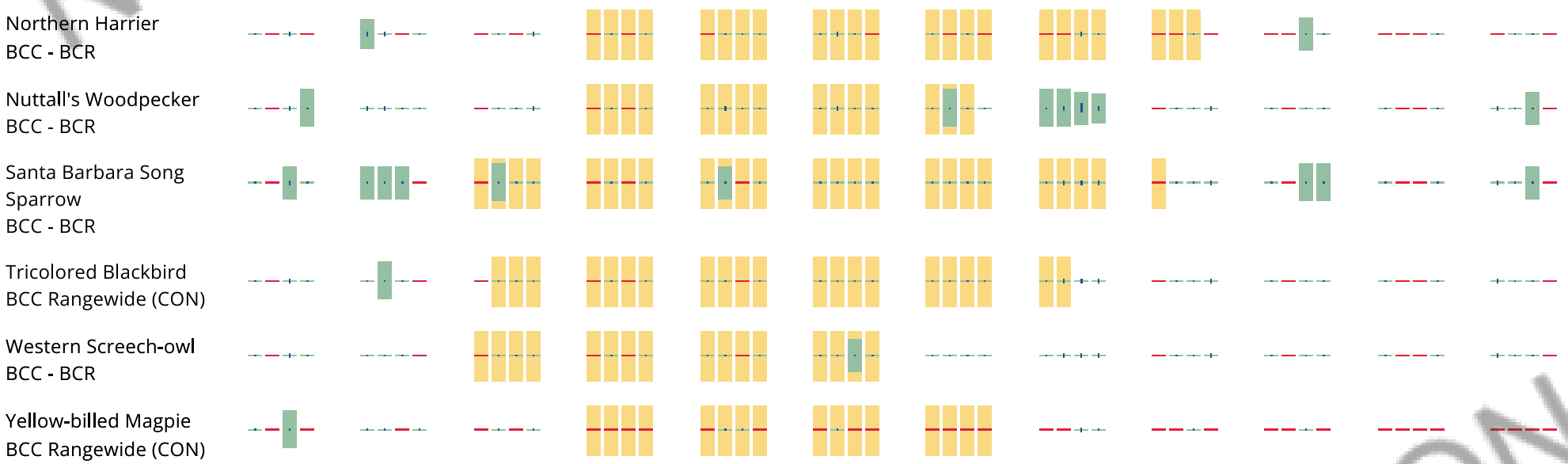
No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 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.





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 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

ational il li e e e lan

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

There are no refuge lands at this location.

i atc e ie

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 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the egulatory Program of the local U.S. Army Corps of Engineers istrict.

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

FRESHWATER EMERGENT WETLAND

PEM C

FRESHWATER FORESTED/SHRUB WETLAND

PSSC

RIVERINE

SBC

UBFx

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 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.

NMFS West Coast Region Species list for the Gregg 7.5-minute USGS Quadrangle – October 2024

Quad Name **Gregg**

Quad Number **36119-H8**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH - **X**

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult Monica DeAngelis
monica.deangelis@noaa.gov
562-980-3232

MMPA Cetaceans -

MMPA Pinnipeds -

APPENDIX A-3: PLANT AND WILDLIFE SPECIES OBSERVED

Table A-3-1: Plant Species Observed in the Study Area on April 4 and 19, and July 18, 2024

Family	Scientific Name	Common Name
Fabaceae	*Acmispon americanus var. americanus*	American bird's-foot trefoil
Amaranthaceae	*Amaranthus albus*	Pigweed amaranth
Boraginaceae	*Amsinckia menziesii*	Small flowered fiddleneck
Poaceae	*Avena barbata*	Slender wild oat
Poaceae	*Bromus diandrus*	Rip gut brome
Poaceae	*Bromus hordeaceus*	Soft brome
Poaceae	*Bromus rubens*	Red brome
Poaceae	*Bromus sterilis*	Poverty brome
Brassicaceae	*Capsella bursa-pastoris*	Shepard's purse
Brassicaceae	*Cardamine hirsuta*	Bitter-cress
Orobanchaceae	*Castilleja exserta*	Purple owl's clover
Asteraceae	*Centaurea solstitialis*	Yellow star thistle
Asteraceae	*Centromadia fitchii*	Spikeweed
Caryophyllaceae	*Cerastium glomeratum*	Sticky mouse-ear chickweed
Chenopodiaceae	*Chenopodium album*	Lamb's quarters
Crassulaceae	*Crassula sp.*	Crassula
Euphorbiaceae	*Croton setiger*	Turkey mullein
Poaceae	*Cynodon dactylon*	Bermuda grass
Solanaceae	*Datura wrightii*	Sacred datura
Poaceae	*Distichlis spicata*	Salt grass
Onagraceae	*Epilobium brachycarpum*	Annual willow herb
Asteraceae	*Erigeron bonariensis*	Flax-leaved horseweed
Asteraceae	*Erigeron canadensis*	Horseweed
Asteraceae	*Erigeron sp.*	Fleabane daisy
Geraniaceae	*Erodium botrys*	Broad leaf filaree
Geraniaceae	*Erodium cicutarium*	White stem filaree
Geraniaceae	*Erodium moschatum*	Red stem filaree
Phrymaceae	*Erythranthe guttata*	Seep monkeyflower
Euphorbiaceae	*Euphorbia maculata*	Spotted spurge
Poaceae	*Festuca myuros*	Rattail fescue
Poaceae	*Festuca perennis*	Italian rye grass
Asteraceae	*Gnaphalium palustre*	Cudweed
Asteraceae	*Grindelia camporum*	Gumplant
Boraginaceae	*Heliotropium curassavicum*	Salt heliotrope

Family	Scientific Name	Common Name
Asteraceae	*Heterotheca grandiflora*	Telegraph weed
Brassicaceae	*Hirschfeldia incana*	Shortpod mustard
Poaceae	*Hordeum murinum*	Wall barley
Asteraceae	*Hypochaeris glabra*	Smooth cat's ear
Asteraceae	*Hypochaeris radicata*	Rough cat's-ear
Juncaceae	*Juncus bufonius*	Toad rush
Asteraceae	*Lactuca serriola*	Prickly lettuce
Fabaceae	*Lupinus bicolor*	Miniature lupine
Fabaceae	*Lupinus succulentus*	Arroyo lupine
Malvaceae	*Malva parviflora*	Cheeseweed mallow
Lamiaceae	*Marrubium vulgare*	Horehound
Asteraceae	*Matricaria discoidea*	Pineapple weed
Fabaceae	*Medicago polymorpha*	Bur clover
Fabaceae	*Melilotus indicus*	Indian sweet-clover
Solanaceae	*Nicotiana glauca*	Tree tobacco
Boraginaceae	*Phacelia cicutaria*	Phacelia
Boraginaceae	*Plagiobothrys stipitatus*	Great Valley popcornflower
Poaceae	*Poa annua*	Annual bluegrass
Poaceae	*Polypogon monspeliensis*	Annual rabbits-foot grass
Polygonaceae	*Rumex crispus*	Curly dock
Salicaceae	*Salix exigua*	Sandbar willow
Salicaceae	*Salix gooddingii*	Goodding’s black willow
Chenopodiaceae	*Salsola tragus*	Russian thistle
Poaceae	*Schismus barbatus*	Common Mediterranean grass
Asteraceae	*Senecio vulgaris*	Common groundsel
Asteraceae	*Sonchus asper ssp. asper*	Prickly sow thistle
Asteraceae	*Sonchus oleraceus*	Common sow thistle
Caryopyllaceae	*Spergularia rubra*	Purple sand spurry
Caryophyllaceae	*Stellaria media*	Common chickweed
Zygophyllaceae	*Tribulus terrestris*	Puncture vine
Lamiaceae	*Trichostema lanceolatum*	Vinegar weed
Fabaceae	*Trifolium hirtum*	Rose clover
Plantaginaceae	*Veronica sp.*	Speedwell
Asteraceae	*Xanthium orientale*	Cocklebur

Table A-3-2: Wildlife Species Observed in the Study Area on May 1, 2024

Scientific Name	Common Name
Birds	
Falco sparverius	American kestrel
Turdus migratorius	American robin
Petrochelidon pyrrhonota	Cliff swallow
Sturnus vulgaris	European starling
Haemorhous mexicanus	House finch
Zenaida macroura	Mourning dove
Mimus polyglottos	Northern mockingbird
Buteo jamaicensis	Red-tailed hawk
Buteo swainsoni	Swainson's hawk
Tyrannus verticalis	Western kingbird
Mammals	
Lepus sp.	Jackrabbit
Canis latrans	Coyote
Procyon lotor	Raccoon

APPENDIX A-4: REPRESENTATIVE PHOTOGRAPHS

Photograph 1. **Roadside ditch and adjacent annual grassland and forbs, facing north; eastern side of the intersection of the access road and Avenue 13 (April 2024)**

Photograph 2. **Agricultural ditch and adjacent annual grassland abutting a vineyard, facing north; western side of the intersection of the access road and Avenue 13 (April 2024)**

Photograph 3. **Eastern side of Cottonwood Creek bridge, facing north (April 2024)**

Photograph 4. **Annual grasslands and agricultural ditch on the eastern side of the access road, facing north; taken halfway between access road intersection with Avenues 12 and 13 (April 2024)**