

1 **3.3 Biological Resources**

2 **3.3.1 Introduction**

3 This section describes the regulatory setting and environmental setting for biological resources. It
4 also describes the potential impacts on biological resources that would result from the operation
5 and/or construction of the Project and mitigation measures that would reduce significant impacts,
6 where feasible and appropriate. Impacts related to consistency with plans are not included in this
7 section; they are discussed in Chapter 4, *Other CEQA-Required Analysis*. Cumulative impacts on
8 biological resources, in combination with planned, approved, and reasonably foreseeable projects,
9 are discussed in Section 3.11, *Cumulative Impacts*.

10 **3.3.2 Regulatory Setting**

11 **3.3.2.1 Federal Regulations**

12 **Federal Endangered Species Act**

13 The federal Endangered Species Act (FESA) of 1973 and subsequent amendments provide for the
14 conservation of listed endangered or threatened species or candidates for listing and the ecosystems
15 on which they depend. United States Fish and Wildlife Service (USFWS) has jurisdiction over
16 federally listed plants, wildlife, and resident fish, and the National Marine Fisheries Service (NMFS)
17 has jurisdiction over anadromous fish and marine fish and mammals.

18 **Endangered Species Act Authorization Process for Federal Actions (Section 7)**

19 Under the Federal Endangered Species Act (FESA), *take* means to “harass, harm, pursue, hunt, shoot,
20 wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct”. Section 7 of FESA
21 provides a means for authorizing take of threatened and endangered species by federal agencies. It
22 applies to actions that are conducted, permitted, or funded by a federal agency. Under FESA Section
23 7, the lead federal agency conducting, funding, or permitting an action must consult with USFWS or
24 NMFS, as appropriate, to ensure that a proposed action will not jeopardize the continued existence
25 of an endangered or threatened species or destroy or adversely modify designated critical habitat. If
26 a proposed action may affect a listed species or designated critical habitat, the lead agency is
27 required to prepare a biological assessment evaluating the nature and severity of the expected
28 effect. In response, USFWS or NMFS issues a biological opinion, with one of the following
29 determinations about the proposed action:

- 30 • May jeopardize the continued existence of one or more listed species (jeopardy finding) or
31 result in the destruction or adverse modification of critical habitat (adverse modification
32 finding); or
- 33 • Will not jeopardize the continued existence of any listed species (no jeopardy finding) or
34 result in adverse modification of critical habitat (no adverse modification finding).

35 The biological opinion issued by USFWS or NMFS may stipulate mandatory reasonable and prudent
36 measures and terms and conditions. If it is determined the Project would not jeopardize the

1 continued existence of a listed species, USFWS or NMFS would issue an incidental take statement to
2 authorize the proposed activity.

3 **Endangered Species Act Prohibitions (Section 9)**

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

7 **Clean Water Act**

8 Clean Water Act (CWA) was enacted as an amendment to the Federal Water Pollution Control Act of
9 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the
10 United States (WoUS). CWA serves as the primary federal law protecting the quality of the nation's
11 surface waters, including lakes, rivers, and coastal wetlands.

12 CWA empowers the United States Environmental Protection Agency (EPA) to set national water
13 quality standards and effluent limitations and includes programs addressing both point-source and
14 nonpoint-source pollution. *Point-source pollution* is pollution that originates or enters surface
15 waters at a single, discrete location, such as an outfall structure or an excavation or construction
16 site. *Nonpoint-source pollution* originates over a broader area and includes urban contaminants in
17 stormwater runoff and sediment loading from upstream areas. CWA operates on the principle that
18 all discharges into the nation's waters are unlawful unless specifically authorized by a permit;
19 permit review is CWA's primary regulatory tool. The following sections provide additional details on
20 specific sections of CWA.

21 **Permits for Fill Placement in Waters and Wetlands (Section 404)**

22 United States Army Corps of Engineers (USACE) regulatory jurisdiction under Section 404 of CWA
23 extends to work in, over, and under WoUS that results in a discharge of dredged or fill materials in
24 USACE jurisdiction.

25 On September 8, 2023, EPA and USACE announced a final rule, the *Revised Definition of "Waters of*
26 *the United States"; Conforming* (Conforming Rule). California is among the states that have adopted
27 this rule. The Conforming Rule is the latest definition resulting from revised rules and litigation over
28 the past few years. It conforms the previous definition (i.e., the January 2023 *Revised Definition of*
29 *"Waters of the United States"*, which took effect on March 20, 2023, and replaced the 2020 Navigable
30 Waters Protection Rule) to the United States Supreme Court's May 25, 2023, decision in the case of
31 *Sackett v. Environmental Protection Agency*.

32 Significant changes in the definitions include the revised definition of adjacent wetlands. *Adjacent*
33 now means "having a continuous surface connection." The Conforming Rule also removes the
34 significant nexus test from consideration when identifying tributaries and other waters as federally
35 protected.

36 Under the Conforming Rule (88 *Federal Register* [FR] 3142, January 18, 2023, as amended at 88 FR
37 61968, September 8, 2023), WoUS includes the following waters (§ 328.3, *Definitions*). The
38 Conforming Rule states the following:

39 a) Waters of the United States are defined as follows.

40 1) Waters which are.

- 1 i) Currently used, or were used in the past, or may be susceptible to use in interstate
2 or foreign commerce, including all waters which are subject to the ebb and flow of
3 the tide;
- 4 ii) The territorial seas; or
- 5 iii) Interstate waters;
- 6 2) Impoundments of waters otherwise defined as waters of the United States under this
7 definition, other than impoundments of waters identified under paragraph (a)(5) of this
8 section;
- 9 3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are
10 relatively permanent, standing or continuously flowing bodies of water;
- 11 4) Wetlands adjacent to the following waters.
- 12 i) Waters identified in paragraph (a)(1) of this section; or
- 13 ii) Relatively permanent, standing or continuously flowing bodies of water identified in
14 paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection
15 to those waters;
- 16 5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section
17 that are relatively permanent, standing or continuously flowing bodies of water with a
18 continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of
19 this section.
- 20 b) The following are not “waters of the United States” even where they otherwise meet the
21 terms of paragraphs (a)(2) through (5) of this section.
- 22 1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the
23 requirements of the Clean Water Act;
- 24 2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion
25 would cease upon a change of use, which means that the area is no longer available for
26 the production of agricultural commodities. Notwithstanding the determination of an
27 area’s status as prior converted cropland by any other federal agency, for the purposes
28 of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction
29 remains with EPA;
- 30 3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and
31 that do not carry a relatively permanent flow of water;
- 32 4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
- 33 5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain
34 water and which are used exclusively for such purposes as stock watering, irrigation,
35 settling basins, or rice growing;
- 36 6) Artificial reflecting or swimming pools or other small ornamental bodies of water
37 created by excavating or diking dry land to retain water for primarily aesthetic reasons;
- 38 7) Waterfilled depressions created in dry land incidental to construction activity and pits
39 excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until
40 the construction or excavation operation is abandoned and the resulting body of water
41 meets the definition of waters of the United States; and
- 42 8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume,
43 infrequent, or short duration flow.

1 For non-tidal WoUS, i.e., rivers, streams, lakes, ponds, the limits of jurisdiction are as follows:

- 2 1. In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water
3 mark, or
- 4 2. When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high
5 water mark to the limit of the adjacent wetlands.
- 6 3. When the water of the United States consists only of wetlands the jurisdiction extends to the
7 limit of the wetland.

8 *Wetlands* are defined in 33 Code of Federal Regulations (CFR) Part 328.3(c)(1) as follows:

9 The term “wetlands” means those areas that are inundated or saturated by surface or ground water
10 at a frequency and duration sufficient to support, and that under normal circumstances do support, a
11 prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally
12 include swamps, marshes, bogs, and similar areas.

13 *Adjacent* is defined in 33 CFR 328.3(c)(2) as follows:

14 The term “adjacent” means having a continuous surface connection.

15 Applicants must obtain a permit from USACE for all discharges of dredged or fill material into WoUS,
16 including adjacent wetlands, before proceeding with a proposed activity. USACE may issue either an
17 individual permit evaluated on a case-by-case basis or a general permit evaluated at a program level
18 for a series of related activities. General permits are preauthorized and are issued to cover multiple
19 instances of similar activities expected to cause only minimal adverse environmental effects. The
20 nationwide permits are a type of general permit issued to cover particular fill activities. Each
21 nationwide permit specifies particular conditions that must be met for the nationwide permit to
22 apply to a particular project.

23 Compliance with CWA Section 404 requires compliance with several other environmental laws and
24 regulations. USACE cannot issue an individual permit or verify the use of a general permit until the
25 requirements of the National Environmental Policy Act (NEPA), FESA, and National Historic
26 Preservation Act have been met. In addition, USACE cannot issue or verify any permit until a water
27 quality certification, or a waiver of certification, has been issued pursuant to CWA Section 401.

28 **Permits for Stormwater Discharge (Section 402)**

29 CWA Section 402 regulates construction-related stormwater discharges to surface waters through
30 the National Pollutant Discharge Elimination System (NPDES) program, administered by EPA. In
31 California, the State Water Quality Control Board is authorized by EPA to oversee the NPDES
32 program through the Regional Water Quality Control Boards (RWQCBs). Related discussion is under
33 *Porter–Cologne Water Quality Control Act* in Section 3.3.2.2, *State Regulations*, of this Environmental
34 Impact Report). The biological Project study area is located in the jurisdiction of the Central Valley
35 RWQCB.

36 NPDES permits are required for projects that disturb more than 1 acre of land. The NPDES
37 permitting process requires the applicant to file a public notice of intent to discharge stormwater,
38 and to prepare and implement a Stormwater Pollution Prevention Plan, which would include a site
39 map and a description of proposed construction activities. In addition, it describes the best
40 management practices (BMPs) that would be implemented to prevent soil erosion and discharge of
41 other construction-related pollutants (e.g., petroleum products, solvents, paints, and cement) that
42 could contaminate nearby water resources. Permittees are required to conduct annual monitoring

1 and reporting to ensure that BMPs are correctly implemented and effective in controlling the
2 discharge of stormwater-related pollutants.

3 **Water Quality Certification (Section 401)**

4 Under CWA Section 401, applicants for a federal license or permit to conduct activities that may
5 result in the discharge of a pollutant into WoUS must obtain certification from the state in which the
6 discharge would originate or, if appropriate, from the interstate water pollution control agency with
7 jurisdiction over affected waters at the point where the discharge would originate. Therefore, all
8 projects that have a federal component and may affect state water quality (including projects that
9 require federal agency approval, such as issuance of a Section 404 permit) must also comply with
10 CWA Section 401.

11 **Executive Order 11990: Protection of Wetlands**

12 Executive Order (EO) 11990, signed on May 24, 1977, directs all federal agencies to refrain from
13 assisting in or giving financial support to projects that encroach on publicly or privately owned
14 wetlands. It further requires that federal agencies support a policy to minimize the destruction, loss,
15 or degradation of wetlands. Such a project that encroaches on wetlands may not be undertaken
16 unless the agency has determined that: (1) there are no practicable alternatives to such
17 construction; (2) the project includes all practicable measures to minimize harm to wetlands that
18 would be affected by the project; and (3) the impact will be minor.

19 **Executive Order 13112: Prevention and Control of Invasive Species**

20 EO 13112, signed on February 3, 1999, directs all federal agencies to prevent and control the
21 introduction of invasive species in a cost-effective and environmentally sound manner. The EO
22 established the National Invasive Species Council, which is composed of federal agencies and
23 departments, and a supporting Invasive Species Advisory Committee composed of state, local, and
24 private entities. In 2016, the National Invasive Species Council released an updated national invasive
25 species management plan (National Invasive Species Council 2016) that recommends objectives and
26 measures to implement the EO and prevent the introduction and spread of invasive species. The EO
27 requires consideration of invasive species in NEPA analyses, including their identification and
28 distribution, their potential impacts, and measures to prevent or eradicate them.

29 **Migratory Bird Treaty Act**

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

1 **3.3.2.2 State Regulations**

2 The following state policies related to biological resources may apply to the implementation of the
3 Project.

4 **California Environmental Quality Act**

5 California Environmental Quality Act (CEQA) is the regulatory framework by which California public
6 agencies identify and mitigate significant environmental effects. A project normally has a significant
7 environmental effect on biological resources if it substantially affects a rare or endangered species
8 or the habitat of that species; substantially interferes with the movement of resident or migratory
9 fish or wildlife; or substantially diminishes habitat for fish, wildlife, or plants. The CEQA Guidelines
10 define rare, threatened, and endangered species as those species listed under FESA and California
11 Endangered Species Act (CESA) and any other species that meet the criteria of the resource agencies
12 or local agencies (e.g., CDFW-designated species of special concern). The guidelines state that the
13 lead agency preparing an Environmental Impact Report must consult with and receive written
14 findings from California Department of Fish and Wildlife (CDFW) concerning project effects on
15 species listed as endangered or threatened. The effects of a proposed project on these resources are
16 important in determining whether the project has significant environmental effects under CEQA.

17 **California Endangered Species Act**

18 CESA prohibits take of wildlife and plants listed as threatened or endangered by California Fish and
19 Game Commission. *Take* is defined under the California Fish and Game Code (CFGC) (more narrowly
20 than under FESA) as any action or attempt to “hunt, pursue, catch, capture, or kill.” Therefore, *take*
21 under CESA does not include “the taking of habitat alone or the impacts of the taking”
22 (*Environmental Council of Sacramento v. City of Sacramento*, Court of Appeals of California, Third
23 District, Sacramento, September 11, 2006). Rather, the courts have affirmed that under CESA,
24 “taking involves mortality.” CDFW administers the act and authorizes take through Section 2081
25 agreements (except for species designated as fully protected).

26 **California Native Plant Protection Act**

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

32 **California Fish and Game Code**

33 **California Fully Protected Species**

34 In the 1960s, before CESA was enacted, the California legislature identified specific species for
35 protection under the CFGC. These *fully protected* species may not be taken or possessed at any time,
36 and no licenses or permits may be issued for their take except for collecting these species for
37 necessary scientific research and relocation of bird species for the protection of livestock. Fully
38 protected species are described in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and
39 amphibians), and 5515 (fish) of the CFGC. These protections state that “...no provision of this code

1 or any other law will be construed to authorize the issuance of permits or licenses to take any fully
2 protected [bird], [mammal], [reptile or amphibian], [fish].”

3 **California Fish and Game Code (Section 3503)**

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

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

10 **California Fish and Game Code (Section 1602)**

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

22 The lake or streambed alteration agreement is not a permit, but rather a mutual agreement between
23 CDFW and the project proponent. Because CDFW includes under its jurisdiction streamside habitats
24 that may not qualify as wetlands under the CWA definition, CDFW jurisdiction may be broader than
25 USACE jurisdiction.

26 **Porter–Cologne Water Quality Control Act**

27 Under the Porter–Cologne Water Quality Control Act definition, waters of the state are “any surface
28 water or groundwater, including saline waters, within the boundaries of the state.” The Conforming
29 rule for WoUS, described above, has no bearing on the Porter–Cologne Water Quality Control Act
30 definition. Although all WoUS that are within the borders of California are also waters of the state,
31 the reverse is not true. Therefore, California retains authority to regulate discharges of waste into
32 any waters of the state (California Water Code Section 13260), regardless of whether USACE has
33 concurrent jurisdiction under CWA Section 404. If USACE determines that a wetland is not subject to
34 regulation under Section 404, CWA Section 401 water quality certification is not required. However,
35 RWQCB may impose waste discharge requirements if fill material is placed into waters of the state.

36 **3.3.2.3 Regional and Local Regulations**

37 **Madera County General Plan**

38 The Project study area is in the *Madera County General Plan Policy Document* planning area (Madera
39 County Planning Commission 1995). *Madera County General Plan Part II, Section 5, Agricultural and*

1 *Natural Resources*, includes policies for protecting biological resources. The following policies are
2 related to biological resources:

3 **Policy 5.D.1:** The County shall comply with the wetlands policies of USACE the U.S. Army Corps of
4 Engineers, the U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife.
5 Coordination with these agencies at all levels of project review shall continue to ensure that
6 appropriate mitigation measures and the concerns of these agencies are adequately addressed.

7 **Policy 5.D.2:** The County shall require new development to mitigate wetland loss in both regulated
8 and non-regulated wetlands through any combination of avoidance, minimization, or compensation.
9 The County shall support mitigation banking programs that can provide the opportunity to mitigate
10 impacts to rare, threatened, and endangered species and/or the habitat which supports these species
11 in wetland and riparian areas.

12 **Policy 5D.3:** The County shall require development to be designed in such a manner that pollutants
13 and siltation will not significantly adversely affect the value or function of wetlands.

14 **Policy 5.D.4:** The County shall require riparian protection zones around natural watercourses.
15 Riparian protection zones shall include the bed and bank of both low and high flow channels and
16 associated riparian vegetation, the band of riparian vegetation outside the high flow channel, and
17 buffers of 100 feet in width as measured from the top of bank of unvegetated channels and 50 feet in
18 width as measured from the outer edge for the canopy of riparian vegetation. Exceptions may be
19 made in existing developed areas where existing development and lots are located within the setback
20 areas.

21 **Policy 5.D.5:** The County shall strive to identify and conserve remaining upland habitat areas
22 adjacent to wetlands and riparian areas that are critical to the feeding or nesting of wildlife species
23 associated with these wetland and riparian areas.

24 **Policy 5.D.6:** The County shall require new private or public developments to preserve and enhance
25 existing native riparian habitat unless public safety concerns require removal of habitat for flood
26 control or other public purposes. In cases where new private or public development results in
27 modification or destruction of riparian habitat for purposes of flood control, the developers shall be
28 responsible for creating new riparian habitats within or near the Project study area at a ratio of 3:1
29 acres of new habitat for every acre destroyed.

30 **Policy 5.E.10:** Prior to approval of discretionary development permits involving parcels within a
31 significant ecological resource area, the County shall require, as part of the environmental review
32 process, a biotic resources evaluation of the sites by a qualified biologist. The evaluation shall be
33 based upon field reconnaissance performed at the appropriate time of year to determine the
34 presence or absence of rare, threatened, or endangered species of plants or animals. Such evaluation
35 will consider the potential for significant impact on these resources and will either identify feasible
36 measures to mitigate such impacts or indicate why mitigation is not feasible.

37 **Policy 5.F.2:** The County shall require developers to use native and compatible non-native species,
38 especially drought-resistant species, to the extent possible in fulfilling landscaping requirements
39 imposed as conditions of discretionary permit approval or for project mitigation.

40 **Policy 5.F.5:** The County shall establish procedures for identifying and preserving rare, threatened,
41 and endangered plant species that may be adversely affected by public or private development
42 projects.

1 3.3.3 Environmental Setting

2 This section provides an overview of the biological communities and special-status species
3 documented or identified as having potential to occur in the Project footprint. The study area for the
4 Project includes a 50-foot buffer around all areas proposed for potential Project activities and
5 represents the limits of disturbance. Below are details on the methods used to identify biological
6 communities and special-status species.

7 3.3.3.1 Land Cover Types and Associated Wildlife

8 The Project study area includes upland and aquatic land cover types. Upland land cover types
9 consist of annual grassland, agricultural, disturbed, and developed. Aquatic land cover types include
10 an intermittent stream, agricultural ditches, and seasonal wetlands.

11 **Table 3.3-1** summarizes upland and aquatic land cover types by acreage in the Project footprint.
12 Land cover types are illustrated on **Figure 3.3-1** (Sheets 1 through 4). Representative photographs
13 of landcover in the survey area are included in Appendix A, *Biological Resource and Aquatic*
14 *Delineation Report*.

15 **Table 3.3-1: Land Cover by Acreage in Project study area and Impact Area**

Land Cover Type	Study Area (Acres) ¹	Impact Area (Acres) ¹
<i>Upland</i>		
Annual Grassland	78.68	59.19
Agricultural	46.26	33.04
Disturbed	28.29	27.30
Developed	6.75	3.87
<i>Upland Total</i>	<i>159.98</i>	<i>123.40</i>
<i>Aquatic</i>		
Intermittent Stream (Cottonwood Creek) ²	1.642	1.25
Agricultural Ditch	0.47	0.47
Seasonal Wetland	0.36	0.24
<i>Aquatic Total</i>	<i>2.47</i>	<i>1.96</i>
Total	162.45	123.36

Source: (USDA, 2009)

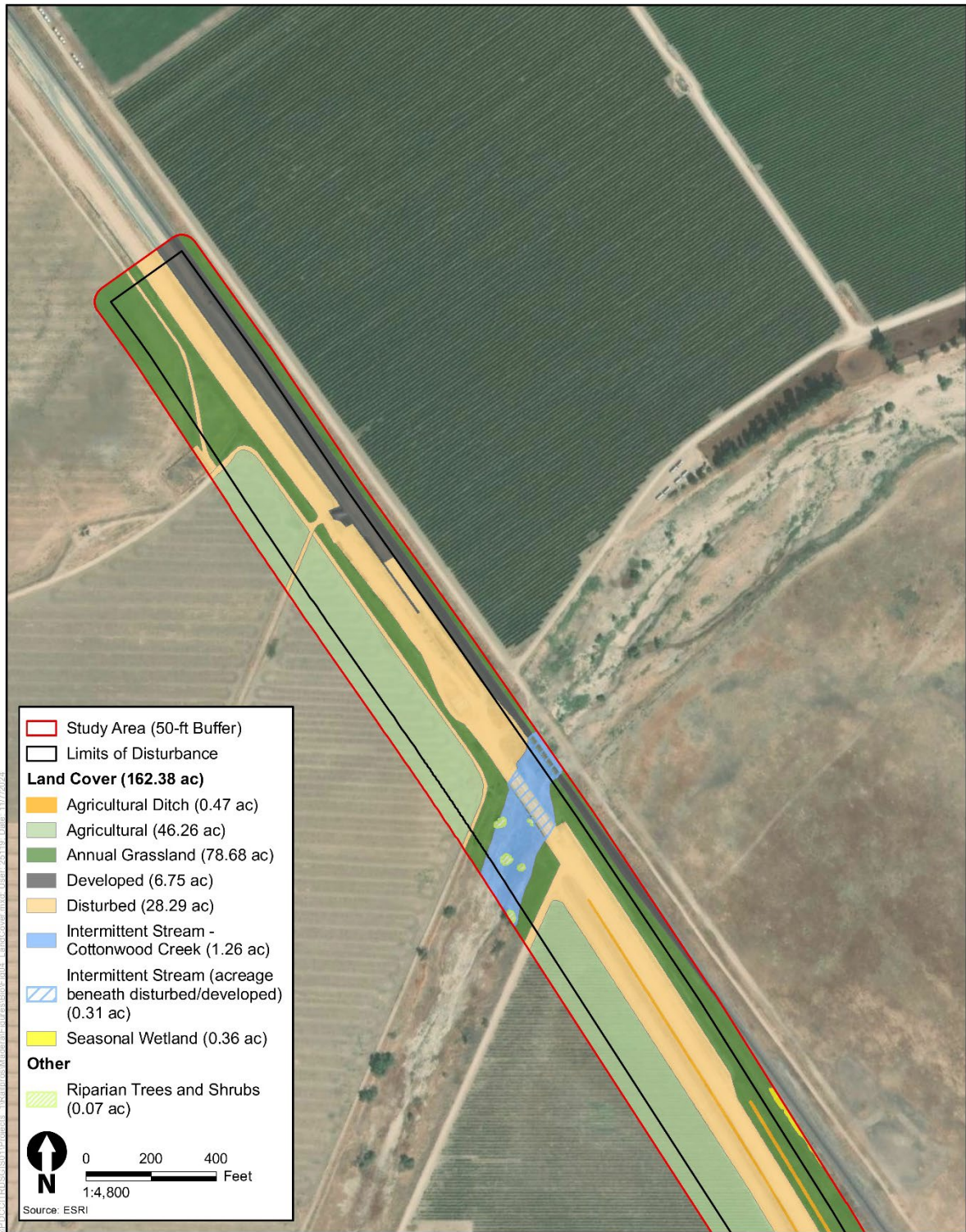
¹Minor difference due to rounding error.

²Acreage 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 in the stream.

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Figure 3.3-1: Land Cover Types (Sheet 1)

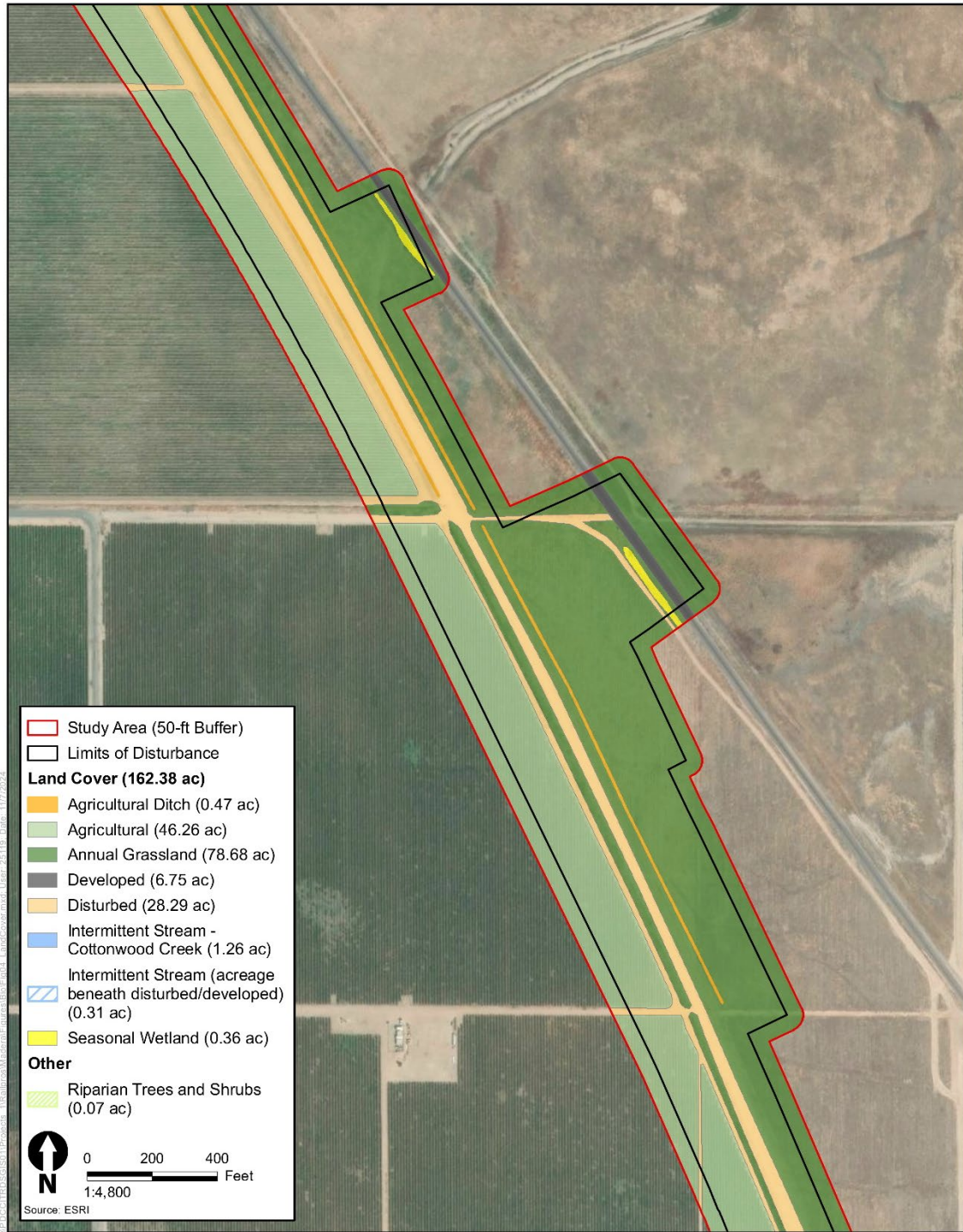


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Source: (USDA, 2009)

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Figure 3.3-1: Land Cover Types (Sheet 2)

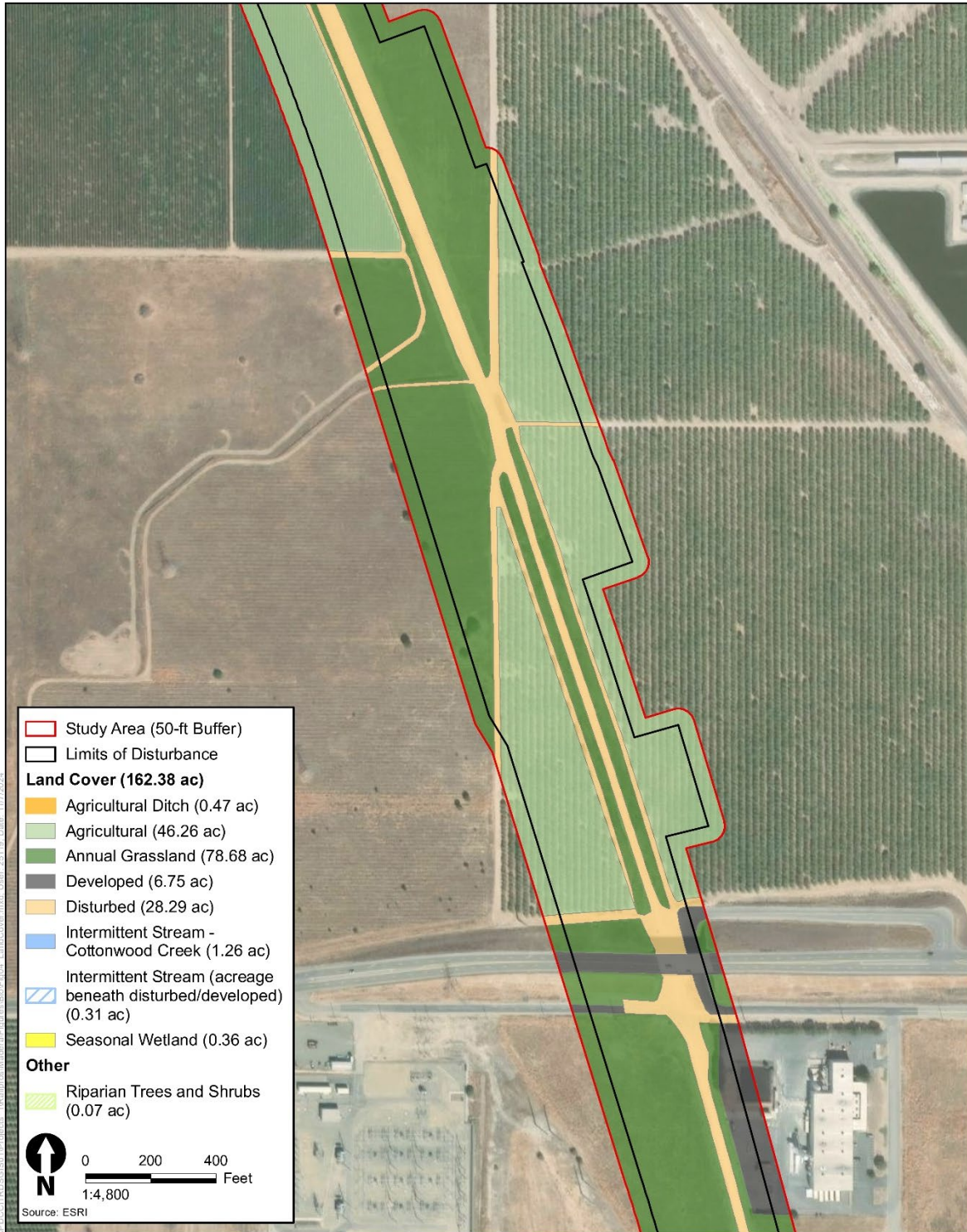


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Source: (USDA, 2009)

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Figure 3.3-1: Land Cover Types (Sheet 3)

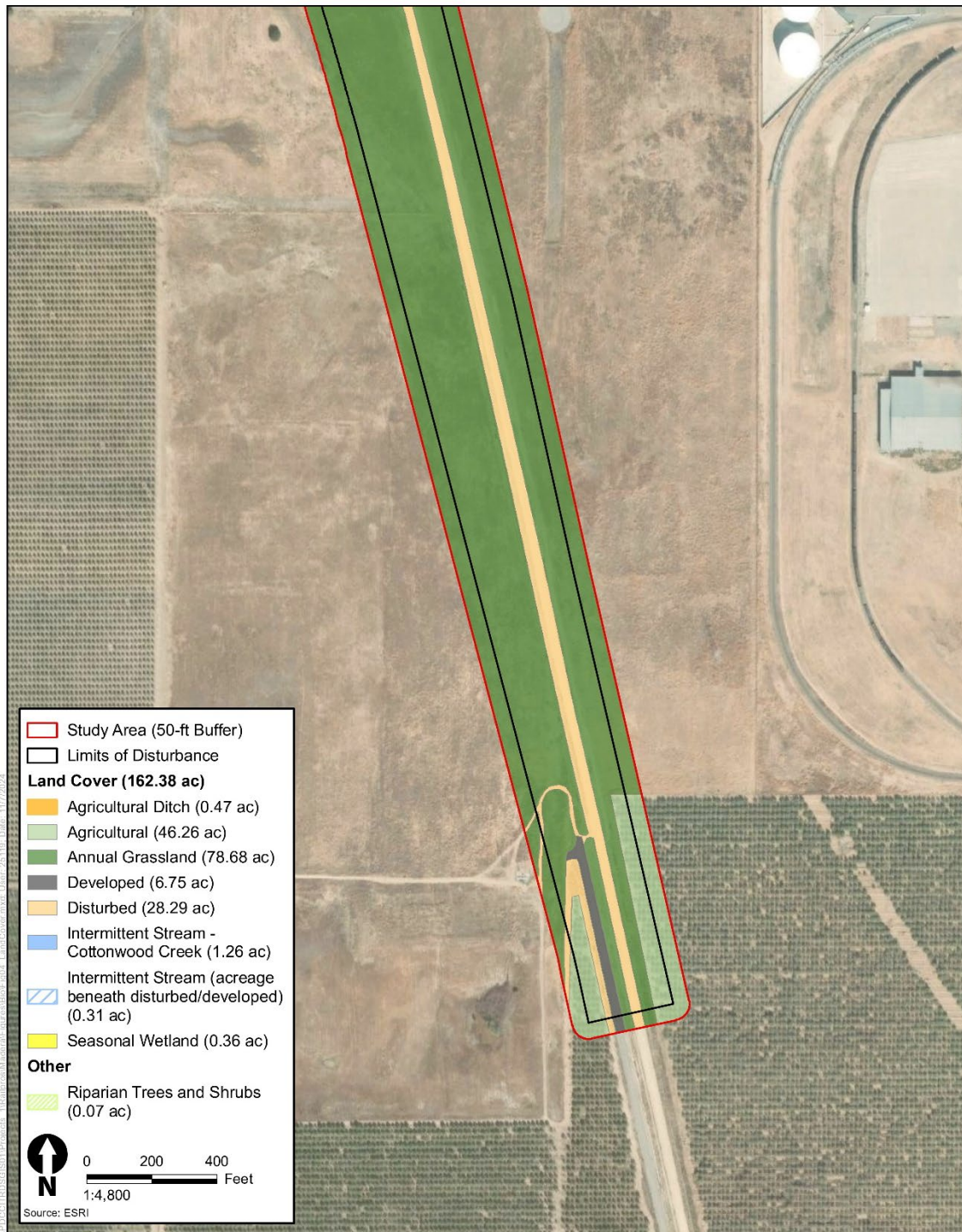


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Source: (USDA, 2009)

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Figure 3.3-1: Land Cover Types (Sheet 4)



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Source: (USDA, 2009)

1 Upland Land Cover Types

2 Annual Grassland

3 Annual grassland occurs on either side of the access road that runs mostly parallel to the railroad
4 and in several parcels on the eastern side of the access road. This land cover type corresponds to the
5 annual grasses and forbs alliance (USDA 2009). Dominant grasses observed by ICF botanists during
6 spring and summer 2024 botanical surveys (ICF 2024) in the annual grassland are soft chess
7 (*Bromus hordeaceus*), wild oat (*Avena fatua*), and ripgut brome (*Bromus diandrus*), with dominant
8 forbs including Menzie's fiddleneck (*Amsinckia menziesii*) and large storksbill (*Erodium botrys*). A
9 few isolated trees and shrubs occur in the annual grassland on the northwestern side of Cottonwood
10 Creek and on the northwestern side of Avenue 12.

11 Agricultural

12 Agricultural includes orchards, vineyards, and row crops. This land cover type occurs on the
13 majority of the western edge of the Project study area.

14 Disturbed

15 Disturbed areas consist of a dirt access road which is characterized by compacted soil, regular
16 maintenance activities, and little to no vegetation.

17 Developed

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

21 Aquatic Land Cover Types

22 Intermittent Stream (Cottonwood Creek)

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

30 Agricultural Ditches

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

34 Seasonal Wetlands

35 Three seasonal wetlands occur in the Project study area (SJPA 2021). These seasonal wetlands are
36 small linear-to-oblong depressions located parallel to the toe of the BNSF railroad embankment.

1 3.3.3.2 Special-Status Species

2 For the purposes of this analysis, *special-status species* are those species with one or more of the
3 following characteristics:

- 4 • Species listed or proposed for listing as Threatened or Endangered under FESA (50 CFR
5 Section 17.11 [listed animals], 50 CFR Section 17.12 [listed plants], and various notices in
6 the FR [proposed species]).
- 7 • Species that are candidates for possible future listing as Threatened or Endangered under
8 FESA (A Proposed Rule by the Fish and Wildlife Service; 87 FR 26152 on May 3, 2022).
- 9 • Species listed or proposed for listing by the State of California as Threatened or Endangered
10 under CESA (Title 14 California Code of Regulations Section 670.5).
- 11 • Plants identified by CDFW and California Native Plant Society (CNPS) about which more
12 information is needed to determine their status, and plants of limited distribution (Rare
13 Plant Ranks 3 and 4; CNPS 2024, CDFW 2024a). Plants considered by CDFW and CNPS to be
14 “rare, threatened, or endangered in California” (California Rare Plant Rank [CRPR] 1B and 2;
15 CDFW 2024b; CNPS 2024).
- 16 • Animal species, subspecies, or distinct populations designated as Species of Special Concern
17 (SSC) by CDFW (2024a)
- 18 • Animals fully protected in California (CFGF §§ 3511 [birds], 4700 [mammals], 5050
19 [amphibians and reptiles], and 5515 [fish]).
- 20 • Plants or animals determined to meet the definitions of *rare* or *endangered* under Section
21 15380 of the CEQA Guidelines.
- 22 • Plants or animals with no formal special status but considered by experts to be rare or in
23 serious decline and that may warrant special status based on recent information.

24 **Table 3.3-2** lists the scientific name, common name, status, distribution, blooming period, habitat
25 requirements, and potential for occurrence of special status plant species in the Project Footprint.
26 **Table 3.3-3** lists the scientific name, common name, status, distribution, habitat requirements, and
27 potential for occurrence of special status animal species in the Project Footprint.

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Table 3.3-2: Special-Status Plant Species Potentially Occurring in Vicinity of Project Footprint

Common Name (<i>Scientific Name</i>)	Status (Federal/ State/ CRPR)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence
Hoover's calycadenia (<i>Calycadenia hooveri</i>)	-/-/1B.3	Northern and central Sierra Nevada foothills in Calaveras, Madera, Merced, Mariposa, and Stanislaus counties	Barren, rocky, exposed soil in cismontane woodland, valley, and foothill grassland; 200 to 985 feet above sea level (asl)	July–September	None. No suitable habitat is present in the Project study area. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Succulent owl's-clover (<i>Castilleja campestris</i> ssp. <i>succulenta</i>)	FT/CE/1B.2	Sacramento and San Joaquin valleys, southern Sierra Nevada foothills	Vernal pools (often acidic); moist places; 50 to 2,460 feet asl	(March) April–May	Moderate. Marginal habitat may occur in seasonal wetlands. The nearest recorded occurrence is 0.6 miles northeast of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024)
California jewelflower (<i>Caulanthus californicus</i>)	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	Sandy soils in valley and foothill grassland, chenopod scrub, and pinyon–juniper woodland; 200 to 3,280 feet asl	February–May	Low. Marginal habitat in annual grassland; no sandy soils present in the Project study area. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).

Common Name (<i>Scientific Name</i>)	Status (Federal/ State/ CRPR)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence
Hoover's cryptantha (<i>Cryptantha hooveri</i>)	-/-/1A	Northern and central San Joaquin valleys: Contra Costa, Kern, Madera, Merced, San Joaquin, and Stanislaus ¹ counties	Coarse, sandy soil in valley and foothill grassland; 30 to 490 feet asl	April–May	Low. Marginal habitat in annual grassland; no sandy soils occur in the Project study areas. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Dwarf downingia (<i>Downingia pusilla</i>)	-/-/2B.2	San Joaquin Valley, southern Sierra Nevada foothills, Sonoma, Napa, Solano counties	Valley and foothill grassland (mesic); vernal pools, 445 to 1,460 feet asl	March–May	Low. Marginal habitat may occur in seasonal wetlands. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Spiny-sepaed button-celery (<i>Eryngium spinosepalum</i>)	-/-/1B.2	San Joaquin Valley, southern Sierra Nevada foothills	Vernal pools, swales, roadside ditches; 80 to 3,200 feet asl	April–June	Low. Marginal habitat may occur in seasonal wetlands. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
California satintail (<i>Imperata brevifolia</i>)	-/-/2B.1	Butte, Fresno, Imperial, Inyo, Kern, Lake, ¹ Los Angeles, Orange, Riverside, San Bernardino, Tehama, Tulare, and Ventura counties; Arizona, Baja California–Mexico, New Mexico, ¹ Nevada, Texas, Utah	Mesic sites in chaparral, coastal scrub, Mojave Desert scrub, meadows often alkali, riparian scrub; 0 to 4,000 feet asl	September–May	None. No suitable habitat occurs in the Project study area. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).

Common Name (<i>Scientific Name</i>)	Status (Federal/ State/ CRPR)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence
Munz's tidy-tips (<i>Layia munzii</i>)	-/-/1B.2	San Joaquin Valley	Alkaline clay soils in Chenopod scrub, valley, and foothill grassland; 150 to 2,300 feet asl	March–April	Moderate. Marginal habitat in annual grassland in the Project study area. The nearest recorded occurrence (circa 1937) is located 0.02 miles north of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Madera leptosiphon (<i>Leptosiphon serrulatus</i>)	-/-/1B.2	Southern Sierra Nevada	Openings in woodland, chaparral; 300 to 4265 feet asl	April–May	None. No suitable habitat occurs in the Project study area. The nearest recorded occurrence is 0.8 miles west of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Pincushion navarretia (<i>Navarretia myersii</i> ssp. <i>myersii</i>)	-/-/1B.1	Central Valley in Amador, Calaveras, Merced, Placer, and Sacramento counties	Edges of vernal pools; 66 to 1,080 feet asl	April–May	Low. Marginal habitat may occur in seasonal wetlands. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	-/-/1B.2	Inner and Outer South Coast Ranges	Vernal pools, clay depressions; 10 to 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 Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).

Common Name (<i>Scientific Name</i>)	Status (Federal/ State/ CRPR)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT/CE/1B. 1	Central Sierra Nevada foothills; San Joaquin Valley	Vernal pools; less than 2,475 feet	April– September	Low. Marginal habitat may occur in seasonal wetlands. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Hairy Orcutt grass (<i>Orcuttia pilosa</i>)	FE/CE/1B. 1	San Joaquin and Sacramento Valleys in Madera, Merced, Stanislaus, and Tehama counties	Vernal pools; 45 to 650 feet	May– September	High. Marginal habitat may occur in seasonal wetlands. Nearest recorded extant occurrences are 0.04 miles north of the Project study area. One likely extirpated occurrence is adjacent to the eastern side of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).
Sanford’s arrowhead (<i>Sagittaria sanfordii</i>)	-/-/1B.2	Del Norte County, Klamath Ranges, San Joaquin and Sacramento Valleys, South Coast	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 occurrences have been recorded within 5 miles of the Project study area. This species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).

Common Name (<i>Scientific Name</i>)	Status (Federal/ State/ CRPR)	Distribution in California	Habitat Requirements	Blooming Period	Potential for Occurrence
Greene’s tuctoria (<i>Tuctoria greenei</i>)	FE/CR/1B. 1	Butte, Fresno, Madera, Merced, San Joaquin, Stanislaus, Tehama, and Tulare counties; Shasta County	Vernal pools; 30 to 3,510 feet	May–July (September)	Low. Marginal habitat may occur in seasonal wetlands. No occurrences have been recorded within 5 miles of the Project study area. Species was not observed during rare plant surveys conducted by ICF botanists in accessible areas in 2024 (ICF 2024).

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

¹ Presumed extirpated.

Status Codes

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 (more than 80% of occurrences Threatened).

.2 = Moderately threatened in California (20 to 80% occurrences Threatened).

.3 = Not very threatened in California (less than 20% of occurrences Threatened).

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Table 3.3-3: Special-Status Animal Species Potentially Occurring in Vicinity of Project Footprint

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
<i>Invertebrates</i>				
Crotch’s bumble bee (<i>Bombus crotchii</i>)	-/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 newly mated queens overwinter. Queens emerge from hibernation in early spring to search for nest sites. Host plant food includes milkweed (<i>Asclepias</i> sp.), pincushion (<i>Chaenactis</i> sp.), lupine (<i>Lupinus</i> sp.), bur clover (<i>Medicago</i> sp.), phacelia (<i>Phacelia</i> sp.), and sage (<i>Salvia</i> sp.).	Moderate. Annual grassland provides habitat, and suitable food sources, including <i>Medicago</i> , <i>Lupinus</i> and <i>Phacelia</i> species, occur in the Project study area. There are no CNDDDB occurrences within 5 miles.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT/-/-	Occurs only in the Central Valley and surrounding foothills below 3,000 feet (USFWS 1980)	Occurs only in the Central Valley in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>). Prefers to lay eggs in elderberries 2 to 8 inches in diameter; some preference is shown for “stressed” elderberries.	None. Elderberry shrubs are not present in the Project study area.
Monarch butterfly (<i>Danaus plexippus</i>)	FC/-/-	Adults breed and migrate throughout California and overwinter along the California coast and in central Mexico	Found in open habitats, including fields, meadows, weedy areas, marshes, and roadsides. Monarch butterflies roost in wind-protected tree groves (e.g., eucalyptus) with nectar and water sources nearby. Caterpillar host plants are native milkweeds.	Low. The Project study area does not provide roosting habitat. Although adults may forage and migrate through the site, no host milkweed plants occur in the Project study area, and there are no CNDDDB occurrences within 5 miles.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE/-/-	This species occurs in the northern two-thirds of the Central Valley and ranges from Vina Plains in Tehama County, Sacramento National Wildlife Refuge in Glenn County, Jepson Prairie Preserve and surrounding area east of Travis Air Force Base, Solano County, and Mapes Ranch west of Modesto, Stanislaus County	Found in large vernal pools and seasonal wetlands approximately 1 acre in size.	None. Seasonal wetlands provide habitat in the Project study area. However, these areas are not large enough to support this species' habitat requirements, and there are no CNDDDB occurrences within 5 miles.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT/-/-	Endemic to the Central Valley, Central Coast Ranges, and South Coast Ranges. It 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 Ranges, and South Coast Ranges. Inhabits the ephemeral water of swales and vernal pools. It is most commonly found in grassed or mud-bottomed swales, earth sumps, or basalt flow depression pools in unplowed grasslands.	High. The seasonal wetlands in the Project study area east of the railroad tracks and south of Avenue 12 provide habitat. There are six CNDDDB occurrences within 5 miles.
<i>Amphibians</i>				
California tiger salamander (<i>Ambystoma californiense</i>)	FT/ST/SSC	Found in the Central Valley, including the Sierra Nevada foothills, up to approximately 1,000 feet, and in coastal regions from Butte County south to northeastern San Luis Obispo County	Occurs in grassland and oak woodland with seasonal ponds and/or pools for breeding and/or small mammal burrows in the vicinity of breeding sites for underground retreats during the dry season.	High. Poned 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 Project study area provide breeding habitat. There are 11 CNDDDB occurrences within 5 miles.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Western spadefoot (<i>Spea hammondi</i>)	PFT/-/SSC	Endemic to the Central Valley and adjacent foothills, Coast Ranges 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. This species is found from sea level to 4,500 feet.	High. Poned areas of Cottonwood Creek, seasonal wetlands, and agricultural ditches provide aquatic habitat, and the annual grassland provides upland habitat. Ponds and wetlands in the vicinity of the Project study area provide breeding habitat. There are 22 CNDDDB occurrences within 5 miles.
<i>Fish</i>				
Delta smelt (<i>Hypomesus transpacificus</i>)	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 to 7 parts per 1,000 (Moyle 2002).	None. There is no suitable habitat present for this species in the Project study area.
Hardhead (<i>Mylopharodon conocephalus</i>)	-/-/SSC	Occurs in tributary streams in the San Joaquin River drainage, large tributary streams in the Sacramento River and the mainstem, and 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 in the Project study area.
Green sturgeon – Southern Distinct Population Segment (<i>Acipenser medirostris</i>)	FT/-/SSC	Occurs in the Sacramento, San Joaquin, Stanislaus, Klamath, and Trinity rivers (Moyle 2002; Jackson and Van Eenennaam 2013)	The 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 in the Project study area.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Steelhead – California Central Valley Distinct Population Segment (<i>Oncorhynchus mykiss irideus</i>)	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 degrees Celsius (Moyle 2002). Habitat types are riffles, runs, and pools.	None. There is no suitable habitat present for this species in the Project study area.
<i>Reptiles</i>				
Western pond turtle (<i>Actinemys [Emys] marmorata</i>)	PFT/-/SSC	The species' California range includes the 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	Found in 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. However, there are no CNDDB occurrences within 5 miles.
Northern California legless lizard (<i>Anniella pulchra</i>)	-/-/SSC	Found 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 plenty of leaf litter is available.	Moderate. The annual grassland provides habitat in the Project study area; however, there are no CNDDB occurrences within 5 miles.
California glossy snake (<i>Arizona elegans occidentalis</i>)	-/-/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 in the Project study area; however, there are no CNDDB occurrences within 5 miles.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Blunt-nosed lizard (<i>Gambelia sila</i>)	FE/CFP/-	Known from the San Joaquin Valley and nearby valleys and foothills, from extreme northwestern Santa Barbara County, western Kern County, and north to southern Merced County	This San Joaquin Valley species 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; avoids densely vegetated areas.	Low. The Project study area does not provide suitable habitat, and there are no CNDDDB occurrences within 5 miles.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	-/-/SSC	Although the current range is more fragmented, historically the 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	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. The annual grassland provides habitat in the Project study area; however, there are no CNDDDB occurrences within 5 miles.
<i>Birds</i>				
Tricolored blackbird (<i>Agelaius tricolor</i>)	-/CT/SSC	A resident in California found throughout the Central Valley and in coastal districts from Sonoma County south, this species is found locally in northeastern California. In winter, it is more widespread along the Central Coast and San Francisco Bay Area	Nests in dense blackberry, cattail, tules, bulrushes, sedges, willow, or wild rose in 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. There are no CNDDDB occurrences within 5 miles.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Burrowing owl (<i>Athene cunicularia</i>)	-/CC/SSC	Found in central and southern coastal habitats, Central Valley, Great Basin, and deserts. Formerly common in appropriate habitat throughout the state, excluding humid northwestern coastal forests and high mountains. Present on larger offshore islands	Occurs in 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). The burrows in the annual grassland and disturbed areas in the Project 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. In addition, there are no CNDDDB occurrences within 5 miles.
Swainson's hawk (<i>Buteo swainsoni</i>)	-/CT/-	Found in the lower Sacramento and San Joaquin valleys, 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 to 82 feet, are the most commonly used nest trees in the Central Valley.	High. Large trees in the Project 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 in the Project study area.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT/CE/-	An uncommon-to-rare summer resident in scattered locations throughout California, this species' breeding population is found along the Colorado River, in Sacramento and Owen valleys, along the South Fork Kern River, Santa Ana River, and Amargosa River. May be present along the San Luis Rey River	Prefers deciduous riparian thickets and/or forests with dense, low-level or understory foliage that abut on slow-moving watercourses, backwaters, or seeps. Willow is almost always a dominant component of the vegetation. In the Sacramento Valley, this species also utilizes adjacent orchards, especially walnut. It nests in sites with some willows, dense, low-level or understory foliage, high humidity, and wooded foraging spaces.	Low. Although willows are present along Cottonwood Creek in the Project study area, they are scattered and not dense enough for this species to utilize.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
<i>Mammals</i>				
Freno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	FE/CE/-	Historically found from Merced County south to central Fresno County	Found at elevations from 200 to 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 in the Project study area.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE/CT/-	Found in the 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 1971). May use pipes or culverts as den sites.	Low. Although the burrows in the annual grassland and around the Cottonwood Creek Bridge abutments provide habitat, the Project study area occurs outside of the known extant geographic range for this species, and there are no CNDDDB records for this species within 5 miles.
Pallid bat (<i>Antrozous pallidus</i>)	-/-/SSC	Occurs throughout California, except the High Sierra Nevada, from Shasta to Kern County, and the northwestern coast, primarily at lower and mid elevations.	Occurs in a variety of habitats but is 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, and porches).	Low (roosting). The box culvert in the Project 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 the Project study area; however, there are no CNDDDB occurrences within 5 miles.

Common Name/ (Scientific Name)	Status (Federal/ State/ Other)	Distribution in California	Habitat Requirements	Potential for Occurrence
Western mastiff bat (<i>Eumops perotis californicus</i>)	-/-/SSC	Uncommon resident in southeastern San Joaquin Valley and the Coast 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 in the Project 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 the Project study area; however, there are no CNDDDB occurrences within 5 miles.
American badger (<i>Taxidea taxus</i>)	-/-/SSC	Found throughout most of California, except the northern North Coast area	Prefers shrub, forest, and herbaceous cover types with friable soils for digging burrows.	Moderate . The annual grassland provides habitat for this species, but there are no CNDDDB records for this species within 5 miles.

1 Source: (CDFW 2024b; USFWS 2024 USFWS 1980; Moyle 2002; Vincik and Julienne 2012; Jennings and Hayes 1994; Transactions of the Western Section
2 of the Wildlife Society 2007; Morrell 1971)

3 **Status Codes**

4 Federal

5 FE = Federally listed as endangered under federal Endangered Species Act.

6 FT = Federally listed as threatened under federal Endangered Species Act.

7 FC = Federal candidate for listing under federal Endangered Species Act.

8 SC = Proposed Federally listed as threatened under federal Endangered Species Act.

9 P = Proposed for listing under federal Endangered Species Act.

10 State

11 CE = State listed as Endangered under California Endangered Species Act.

12 CT = State listed as Threatened under California Endangered Species Act.

13 CC = State candidate for listing under California Endangered Species Act.

14 Other

15 CFP = California Fully Protected Species.

16 CNDDDB = California Natural Diversity Database.

17 SSC = California Species of Special Concern.

3.3.3.3 Non-Special-Status Migratory Birds and Other Birds of Prey

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

3.3.3.4 Sensitive Natural Communities

Special-status or sensitive natural communities are communities (vegetation types) that are of limited distribution statewide or in 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* (California Department of Fish and Game 2010) are considered to be highly imperiled, and 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 CNDDDB list (CDFW 2024a): Northern hardpan vernal pool, Northern claypan vernal pool, and Great Valley mixed riparian. The CNDDDB includes two records of the Northern hardpan vernal pool within 5 miles of the site. However, these natural communities are not present in the Project study area.

Sensitive natural communities in the Project study area include Cottonwood Creek and seasonal wetland. Cottonwood Creek and the seasonal wetlands are considered potentially jurisdictional WoUS and waters of the State (WoS), which are discussed below. No other sensitive natural community occurs in the Project study area.

3.3.3.5 Potential Jurisdictional Waters, Wetlands, and Other Habitats

The agricultural ditches mapped in the Project study area 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 in the Project study area would not qualify as a WoUS or WoS.

Aquatic resources in the Project study area include Cottonwood Creek (riverine) and seasonal wetlands. These aquatic features are considered potentially jurisdictional WoUS and WoS. No formal delineation has been conducted in the Project study area.

3.3.3.6 Wildlife Corridors

Wildlife movement corridors are areas defined by wildlife use for movement events on varying scales (e.g., daily foraging, seasonal migration, or 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 in the Project study area are known to support various wildlife species that utilize agricultural areas for foraging, breeding, and dispersal. The CDFW

1 Terrestrial Connectivity Areas of Conservation Emphasis classifies the entire Project study area as
2 Limited Connectivity Opportunity (CDFW 2024c). Therefore, the Project study area may provide
3 some migratory opportunities for common wildlife species; however, the Project study area is not in
4 a known wildlife corridor or considered an essential connectivity area.

5 **3.3.4 Impact Analysis**

6 **3.3.4.1 Methods for Analysis**

7 Potential impacts to biological resources resulting from Project construction were determined by
8 evaluating the Project plans in relation to the habitat present in the Project study area, quantifying
9 potential loss of habitat types, and evaluating potential effects of habitat loss to special-status
10 species.

11 **3.3.4.2 Thresholds of Significance**

12 CEQA Guidelines Appendix G (Title 14 California Code of Regulations Section 15000 et seq.)
13 identifies significance criteria to be considered for determining whether a project could have
14 significant impacts on biological resources.

15 An impact would be considered significant if construction or operation of the Project would have
16 any of the following consequences:

- 17 • Have a substantial adverse effect, either directly or through habitat modifications, on any
18 species identified as a candidate, sensitive, or special status species in local or regional
19 plans, policies, or regulations, or by CDFW or USFWS;
- 20 • Have a substantial adverse effect on any riparian habitat or other sensitive natural
21 community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- 22 • Have a substantial adverse effect on state or federally protected wetlands (including, but not
23 limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological
24 interruption, or other means;
- 25 • Interfere substantially with the movement of any native resident or migratory fish or
26 wildlife species or with established native resident or migratory wildlife corridors or
27 impede the use of native wildlife nursery sites; or
- 28 • Conflict with any local policies or ordinances protecting biological resources, such as a tree
29 preservation policy or ordinance.

1 3.3.4.3 Impacts and Mitigation Measures

2 Project Construction

Impact BIO-1	Construction of the Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
Level of Impact	Less than Significant with Mitigation Incorporated

4 Construction of the Project would result in permanent and temporary impacts on land cover
5 potentially suitable as habitat for special-status plant and wildlife species, including state and
6 federally listed species. Project impacts by land cover type are summarized in **Table 3.3-1**. All
7 aspects of construction have the potential to cause impacts, either from direct removal of habitat or
8 individuals, or from indirect impacts such as introduction of nonnative invasive species or changes
9 in hydrology. There are 15 special-status species (four plants and 11 animals) with moderate to high
10 potential to occur in the Project study area. Construction impacts on special-status plant species are
11 presented first, followed by construction impacts on special-status wildlife species.

12 Special-Status Plants

13 Although no special-status plants were observed during the April or July 2024 botanical surveys
14 performed by ICF botanists (ICF 2024), the majority of the Project study area was not surveyed due
15 to access restrictions. There is moderate to high potential for four special-status plants to occur in
16 the annual grassland and seasonal wetlands: the federally and state-listed succulent owl's clover
17 (*Castilleja campestris* ssp. *succulentus*), the non-listed CRPR 1B.2 Munz's tidy-tips (*Layia munzii*), the
18 non-listed CRPR 1B.2 shining navarretia (*Navarretia nigelliformis* ssp. *radians*), and the federally and
19 state-listed hairy Orcutt grass (*Orcuttia pilosa*).

20 If special status-plants are present in non-surveyed areas, construction of the Project could result in
21 the permanent and temporary loss of special-status plant species. Construction-related grading and
22 excavation could destroy potentially occurring special-status plant species in the annual grassland
23 and seasonal wetland habitats. These potential impacts would result in a significant impact. With the
24 implementation of Mitigation Measures (MM) BIO-1 through MM BIO-3, potential impacts to special-
25 status plant species would be reduced to less than significant during Project construction.

26 **MM BIO-1: Conduct Appropriately Timed Surveys for Special-Status Plant Species Prior to** 27 **Construction Activities, Delineate Environmentally Sensitive Areas for Avoidance of Plants** 28 **Present in Temporarily Affected Areas, and Compensate for Permanent Impacts on Special-** 29 **Status Plant Species**

30 Qualified botanists will be required to conduct special-status plant surveys of the Project footprint,
31 including all permanent and temporary impact areas and a 50-foot-wide buffer area to encompass
32 areas where indirect effects may occur. The surveys will be conducted in accordance with *Protocols*
33 *for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural*
34 *Communities* (CDFW 2018), or the most current protocols, specifically with respect to the number
35 and timing of surveys, use of reference populations, and evaluation of negative findings (failure to
36 locate a known special status plant occurrence). Surveys will occur during the seasons where

1 special-status plant species would be evident and identifiable, which generally is during their
2 blooming periods. In areas where no special-status plant species are present, no further mitigation
3 will be required.

4 Where surveys determine that a special-status plant species is present in or adjacent to an area
5 where temporary ground-disturbing activities would take place, Project impacts on the species will
6 be minimized, if feasible, through the establishment of activity exclusion zones and avoidance areas,
7 in which no ground-disturbing activities will take place, including construction staging or other
8 temporary work areas. Activity exclusion zones for special-status plant species will be a minimum of
9 50 feet established around each occupied habitat site, the boundaries of which will be clearly
10 marked with construction exclusion fencing or its equivalent. The establishment of activity
11 exclusion zones will not be required if no construction-related disturbances occur within 50 feet of
12 the occupied habitat. The size of activity exclusion zones may be reduced below 10 feet through
13 consultation with a qualified biologist and with concurrence from CDFW or, for any federally listed
14 species, from USFWS based on site-specific conditions.

15 If exclusion zones cannot be established feasibly for minimization, and construction would result in
16 take of federally listed or state-listed plants or plant parts (roots, shoots, fruit, or seeds), SJJPA will
17 apply for take authorization through an Incidental Take Permit (ITP) for state-listed species from
18 CDFW and for take authorization through the Section 7 consultation from USFWS.

19 Prior to any construction activities that would result in permanent impacts on federally or state-
20 listed plants, SJJPA will acquire and permanently protect compensatory mitigation habitat for each
21 affected species at a minimum 2:1 ratio (2 acres preserved for every 1 acre permanently affected),
22 but the final compensation ratios will be based on site-specific information and determined through
23 coordination with the applicable state and/or federal agencies (CDFW and USFWS) during permit
24 processing. The compensation acreage used for the ratio will be based on the area of impact as
25 determined by surveys required under MM BIO-1. Compensatory mitigation will be accomplished by
26 procurement of existing onsite or offsite occupied habitat acquired in-fee, through conservation
27 easements, or by purchasing credits from a certified conservation bank or mitigation bank. The
28 purchase of mitigation credits or the establishment of onsite or offsite mitigation areas (or a
29 combination of the two) would be completed as agreed on by SJJPA, USFWS, and/or CDFW, as
30 appropriate for the species being mitigated. If onsite or offsite occupied habitat is acquired
31 (permittee-responsible mitigation), the habitat will require monitoring by SJJPA. If credits are
32 purchased from a certified bank, no further monitoring will be required.

33 For non-listed species with a CRPR 1B.2 status, seed will be collected from plants to be removed
34 during the appropriate period the year before construction, or topsoil containing the seed bank will
35 be retained for spreading after construction. The collected seed or topsoil will be replaced in
36 suitable habitat for the species after construction, preferably in a temporarily affected part of the
37 Project study area. The replanted area will be monitored for at least 3 years until the plants are self-
38 reproducing and occupy an area of comparable size and density as the affected occupied habitat at
39 the time of the impact.

40 **MM BIO-2: Conduct Mandatory Environmental-Awareness Training for Construction** 41 **Personnel**

42 The Project will hire a qualified biologist that will conduct environmental awareness training for
43 construction crews before and during Project implementation. The awareness training will be

1 provided to all construction personnel and will brief them on the need to avoid effects on sensitive
2 biological resources (e.g., sensitive natural communities, wetlands and other waters, occupied
3 special-status plant and animal species habitat; non-special-status bats; nest sites for migratory
4 birds). The education program will include a brief review of the special-status species with the
5 potential to occur in the BSA (including their life history, habitat requirements, and photographs of
6 the species), natural communities of special concern, non-special-status bats, and migratory birds.
7 The training will identify the portions of the Project study area in which the species may occur, as
8 well as their legal status and protection. The program also will cover the restrictions and guidelines
9 that must be followed by all construction personnel to reduce or avoid effects on these species
10 during Project implementation. This program will include the steps to be taken if a sensitive species
11 is found in the construction area (i.e., notifying the crew foreperson, who will call a designated
12 biologist). In addition, construction employees will be educated about the importance of controlling
13 and preventing the spread of invasive plant infestations. An environmental awareness handout that
14 describes and illustrates sensitive resources to be avoided during Project construction and identifies
15 all relevant permit conditions will be provided to each crew member. The crew foreperson will be
16 responsible for ensuring that crew members adhere to the guidelines and restrictions. Education
17 programs will be conducted for appropriate new personnel as they are brought on the job during
18 the construction period.

19 **MM BIO-3: Conduct Daily Biological Monitoring by a Qualified Biologist During all** 20 **Construction Activities**

21 The Project will hire a qualified biological monitor that will be present during all construction
22 activities to ensure compliance with all biological mitigation measures. The biological monitor will
23 ensure that construction personnel are trained, that mitigation measures are properly implemented,
24 that fencing, silt fencing, and/or straw wattles are installed around exclusion zones and avoidance
25 buffers and remain intact throughout the duration of construction, and that sensitive habitats
26 proposed for preservation are avoided. In addition, the biological monitor will conduct daily
27 clearance surveys in the work area prior to commencement of work each morning and will ensure
28 that all exclusion fencing remains intact. Daily activities will be documented in a daily monitoring
29 log.

30 **Special-Status Animals**

31 **Crotch's Bumble Bee**

32 Crotch's bumble bee is a candidate for listing as endangered under CESA. Crotch's bumble bee has
33 the potential to be present in areas of flowering plants that provide a nectar and pollen food source.
34 The extent of flowering plants in annual grassland has not been determined. Suitable foraging
35 habitat for Crotch's bumble bees could be present along existing and proposed new access roads
36 since many of these occur in low-lying areas. Overall, there is a moderate potential for Crotch's
37 bumble bee to forage and nest in the annual grassland.

38 Construction activities would result in the loss of Crotch's bumble bee habitat in the annual
39 grassland. Additional direct effects would include the potential for injury and mortality of larvae and
40 migrating adults. Crotch's bumble bees could be struck by vehicles and construction equipment
41 traveling along access roads during construction if foraging or flying through the area. Other impacts
42 include an increase in mortality incidences of Crotch's bumble bee from vehicle collisions due to the
43 increased number of vehicles and vehicle speeds in the Project study area. Indirect impacts could

1 occur through the removal of nectar plants, which would reduce food sources for the species. The
2 direct and indirect impacts associated with construction would be potentially significant.

3 With implementation of MM BIO-2, MM BIO-3, and MM BIO-4, potential impacts would be reduced
4 to less than significant during Project construction.

5 **MM BIO-4: Conduct Preconstruction Surveys for Crotch's Bumble Bee and Implement**
6 **Protection Measures to Avoid, Minimize, and Compensate for Impacts on Crotch's Bumble**
7 **Bee**

8 Prior to the start of construction, a qualified biologist will conduct botanical surveys in late
9 spring/early summer to identify and map concentrations of flowering plants that provide food
10 resources for Crotch's bumble bee. The areas containing higher densities and varieties of flowering
11 plants will be evaluated by a qualified invertebrate biologist to determine if these areas provide
12 suitable foraging habitat for Crotch's bumble bee. The habitat evaluation surveys would follow
13 recommendations in the *Rusty Patched Bumble Bee Habitat Assessment Form and Guide* (Xerces
14 2017).

15 If moderate to high quality foraging habitat for Crotch's bumble bee is identified in the Project study
16 area based on the habitat assessment, these areas will be surveyed by a qualified invertebrate
17 biologist (with experience conducting bumble bee surveys) within 1 year prior to the start of
18 construction. Surveys would be conducted according to the methods in Thorp et al. (1983), which
19 recommend that surveys be conducted during four evenly spaced sampling periods during the flight
20 season (March through September). For each sampling event, the biologist would survey suitable
21 habitat using nonlethal netting methods for 1 person-hour (the amount of work that can be done by
22 one person in one hour) per 3 acres of the highest quality habitat or until 150 bumble bees are
23 sighted, whichever comes first. If initial sampling of a given habitat area indicates that the habitat is
24 of low quality or nonexistent, no further sampling of that area would be required. General guidelines
25 and best practices for bumble bee surveys would follow the *Survey Protocols for the Rusty Patched*
26 *Bumble Bee* (USFWS 2019).

27 If Crotch's bumble bee is determined not to be present at the Project study area or a qualified
28 invertebrate biologist (experienced with bumble bees) concludes that there is a very low likelihood
29 that the species is present, then no additional mitigation is required.

30 If Crotch's bumble bee is determined to be present at the Project study area, then SJJPA will also
31 implement MM BIO-2, MM BIO-3, and MM-BIO-4.

32 Additionally, if it is determined through preconstruction surveys that Crotch's bumble bees are
33 present at the Project study area, the following mitigation measures will be implemented to ensure
34 that the Project does not have a significant impact on Crotch's bumble bee. Implementation of some
35 of these measures may require that the Project obtain an ITP from CDFW if Crotch's bumble bee
36 remains a candidate or is formally listed under CESA before construction begins.

37 If bumble bee surveys identify occupied Crotch's bumble bee habitat in the Project study area, the
38 biologist would conduct additional preconstruction surveys in the Project disturbance footprint for
39 active bee nest colonies and associated floral resources (i.e., flowering vegetation on which bees
40 from the colony are observed foraging) no more than 30 days prior to any ground disturbance
41 between March and September. The purpose of this preconstruction survey would be to identify
42 active nest colonies and associated floral resources outside of permanent impact areas that could be

1 avoided by construction personnel. The biologist would establish, monitor, and maintain no-work
2 buffers around nest colonies and floral resources identified during surveys. The size and
3 configuration of the no-work buffer would be based on the best professional judgment of the
4 biologist. At a minimum, the buffer would provide at least 20 feet of clearance around nest
5 entrances. Construction activities would not occur in the no-work buffers until the colony is no
6 longer active (i.e., no bees are seen flying in or out of the nest for three consecutive days indicating
7 the colony has completed its nesting season and the next season's queens have dispersed from the
8 colony). Monitoring of an active nest could be conducted using a motion-detecting wildlife trail
9 camera.

10 **Vernal Pool Fairy Shrimp**

11 Vernal pool fairy shrimp are listed as Threatened under FESA. The seasonal wetlands in, and in the
12 vicinity of, the Project study area provide suitable habitat for vernal pool fairy shrimp. USFWS
13 considers construction within 250 feet of vernal pool habitat to constitute a possible impact on the
14 habitat. It is assumed that vernal pool fairy shrimp are present in the seasonal wetlands. Direct
15 impacts would result in the removal of 0.24 acres of habitat. Grading and excavation have the
16 potential to change the supporting surface and subsurface hydrology such that aquatic habitat
17 potentially becomes drier over time and does not provide suitable hydrology to support the life
18 cycles of these species on the remaining 0.12 acres of seasonal wetlands proposed to remain in the
19 Project study area and other potentially suitable aquatic habitat within 250 feet of the Project study
20 area. Indirect impacts may also result from stockpiling soils upslope of wetlands, leading to
21 sediment transfer into the water column. Chemical spills from fuel, transmission fluid, lubricating
22 oil, and motor oil leaks could contaminate the water column, resulting in mortality of vernal pool
23 invertebrates, which would result in a significant impact. SJJPA assumes presence of vernal pool
24 fairy shrimp in the seasonal wetlands. With implementation of MM BIO-2, MM BIO-3, and MM BIO-5,
25 potential impacts would be reduced to less than significant during Project construction.

26 **MM BIO-5: Implement Protection Measures to Avoid, Minimize, and Compensate for Impacts** 27 **on Suitable Vernal Pool Fairy Shrimp Habitat**

28 A Biological Opinion with an incidental take statement will be obtained from USFWS prior to
29 impacts. All conditions of the incidental take statement will be complied with, including
30 preservation and creation credits to offset habitat conversion. Before discharge of fill material,
31 preservation and/or creation credits will be obtained from a USFWS-approved mitigation bank.
32 Before discharge of fill material, one creation credit will be obtained from a USFWS-approved
33 mitigation bank for every acre of habitat directly affected, and two preservation credits will be
34 obtained for every acre of habitat directly and indirectly affected by the proposed action. The exact
35 acreage will be determined during the consultation process.

36 Prior to the start of construction, high-visibility temporary construction fencing will be installed
37 along the perimeter of the limits of disturbance in areas within 250 feet of environmentally sensitive
38 areas (e.g., aquatic features including seasonal wetlands) to prevent encroachment of construction
39 equipment. Straw wattles or silt fencing will be installed immediately behind the high-visibility
40 construction fencing to prevent soil deposition from affecting sensitive areas. Fencing will be of an
41 appropriate material that will not risk entangling sensitive wildlife species. All temporary fencing
42 will be removed on the completion of construction.

1 Temporary stockpiling of excavated or imported material will occur only in approved construction
2 staging areas. Excess excavated soil will be used onsite or disposed of at a regional landfill or other
3 appropriate facility.

4 No surface water will be drafted from aquatic features in the Project study area. Water will be
5 trucked in as needed for use during construction.

6 **Swainson's Hawk**

7 Swainson's hawk is listed as threatened under CESA and holds no federal status. The isolated trees
8 along Cottonwood Creek provide nesting habitat for Swainson's hawk. Direct impacts on nesting
9 habitat could occur if Swainson's hawk nest in any trees proposed for removal along Cottonwood
10 Creek. In addition, noise or vibration associated with construction activities involving heavy
11 equipment operation that occurs during the breeding season (generally between March 1 and
12 September 15) could disturb an active nest if it is located within 0.5 miles of the Project study area.
13 Construction activities have a sliding scale of risk to nesting Swainson's hawks, from high to low:
14 physical contact with the nest tree, activities that occur close to the nest at nest height or above,
15 human activity close to the nest tree, and mechanical activity close to the nest tree. In general, as the
16 distance between the nest and activity increases, risk to nesting success declines (Swainson's Hawk
17 Technical Advisory Committee 2000).

18 Swainson's Hawk Foraging

19 The annual grassland provides foraging habitat for Swainson's hawk. The Project would remove
20 approximately 59.19 acres of annual grassland, which provides foraging habitat for Swainson's
21 hawk. CDFW considers whether a proposed project will adversely affect suitable foraging habitat
22 within a 10-mile radius of a Swainson's hawk nest that has been active within the last 5 years
23 regardless of whether the nest was occupied in the same year that the lead agency establishes the
24 environmental baseline. There are eight CNDDB occurrences documented within 10 miles of the
25 Project study area. None of these occurrences have documented active nests within the last 5 years.
26 Because there are no known occurrences of nesting Swainson's hawk within 10 miles of the Project
27 study area in the last 5 years, impacts to Swainson's hawk foraging habitat would be considered less
28 than significant, and no mitigation is required.

29 Swainson's Hawk Nesting

30 The direct and indirect impacts associated with construction on Swainson's hawk nesting would be
31 potentially significant. With implementation of MM BIO-2, MM BIO-3, MM BIO-6, and MM BIO-7,
32 impacts would be reduced to less than significant during Project construction.

33 **MM BIO-6: Remove Trees Outside of Nesting Season**

34 Any trees in the Project footprint will be removed outside of the nesting season (September 16
35 through January 31), to the extent feasible. The generally accepted nesting season that encompasses
36 most nesting birds including Swainson's hawk extends from February 1 through September 30. If
37 trees cannot be removed outside of the nesting season, preconstruction nesting bird surveys will be
38 conducted within 7 days prior to their removal.

MM BIO-7: Conduct Protocol-Level Surveys for Swainson's Hawk and Minimize Disturbance of Swainson's Hawk

Prior to the start of construction, a qualified biologist will conduct Swainson's hawk protocol-level surveys during all survey periods throughout the nesting season prior to the commencement of construction activities scheduled between March 1 to September 30 (the Swainson's hawk nesting season), regardless of the initiation of ground-disturbing activities. Protocol-level surveys will be conducted in all suitable Swainson's hawk nesting habitat within 0.5 miles of the Project study area in accordance with *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). If no active nests are observed within 0.5 miles of the Project study area, no additional measures are required so long as construction commences within that year. If construction is delayed to the following year, a subsequent round of protocol-level surveys will be required.

Nests found within 0.5 miles will be monitored either continuously or periodically depending on the construction activities and level of disturbance until chicks have fledged, are feeding independently, and are no longer dependent on the nest.

- **Timing Restrictions:** Where the construction site occurs within 0.5 miles of known or occupied nest trees identified by the CDFW-approved biologist, SJPPA will limit construction activities to outside of the Swainson's hawk breeding season (March 1 to August 15), to the extent practicable. Where construction activities cannot be restricted to more than 0.5 miles of an occupied nest tree during the breeding season, SJPPA will restrict the construction activities to not occur during the period of egg laying until after chicks have fledged, as determined by the CDFW-approved biologist, to the extent practicable. If not practicable, SJPPA will initiate construction activities prior to egg laying to allow time for Swainson's hawk acclimatize to disturbance before eggs are laid. Where restricting work to outside of the breeding season or during the period of egg laying to post-fledging is not practicable, SJPPA will submit plans to initiate construction activities to CDFW for written approval.
- **No-Disturbance Buffer:** Where construction activities must occur within 0.5 mile of an occupied Swainson's hawk nest tree, SJPPA will establish a 650-foot-radius no-activity buffer around each occupied nest tree, and the buffer will remain in place until the end of the breeding season or until the last chick has left the nest. SJPPA will clearly delineate the buffer with fencing or other conspicuous marking. The CDFW-approved biologist will monitor occupied nest trees to track progress of nesting activities, as described below in Swainson's Hawk Nest Monitoring. SJPPA will not conduct any construction activities in the buffer unless a smaller buffer is approved in writing by CDFW. If a construction activity must occur within 0.5 miles of an occupied nest tree, SJPPA will follow the conditions under Swainson's Hawk Nest Monitoring below. SJPPA will not conduct any construction activity within 150 feet of an occupied nest tree.
- **Swainson's Hawk Nest Monitoring:** Where construction activities must occur within 0.5 miles of an occupied Swainson's hawk nest tree, SJPPA will implement the following monitoring plan:
 - Five days and 3 days prior to the initiation of construction at any site where an occupied nest is within 0.5 miles of construction, the CDFW-approved biologist will observe the subject nest(s) for at least 1 hour or until nest status can be determined. The CDFW-approved biologist will document nesting status and behaviors to compare to nesting status and behaviors after construction begins. SJPPA will report the results of preconstruction monitoring to CDFW within 24 hours of each survey.

- 1 ○ Where an occupied nest tree occurs between 150 and 325 feet from construction activities,
2 the CDFW-approved biologist will observe the nest for at least 4 hours per day during
3 construction to ensure the Swainson's hawks are engaged in normal nesting behavior. SJJPA
4 will limit construction to between 30 minutes after sunrise and 30 minutes before sunset.
- 5 ○ Where an occupied nest tree occurs between 325 and 650 feet of construction, the CDFW-
6 approved biologist will observe the nest for at least 2 hours per day during construction to
7 ensure the Swainson's hawk are engaged in normal nesting behavior.
- 8 ○ Where an occupied nest tree occurs between 650 and 1,300 feet of construction, the CDFW-
9 approved biologist will observe the nest for at least 1 hour on at least 3 days per week
10 during construction to ensure the Swainson's hawk are engaged in normal nesting behavior
11 and to check the status of the nest.
- 12 ○ Where an occupied nest tree occurs between 1,300 and 2,640 feet of construction, the
13 CDFW-approved biologist will observe the nest for at least 1 hour on at least 1 day per week
14 during construction to ensure the Swainson's hawks are engaged in normal nesting
15 behavior and to check the status of the nest.
- 16 ● **Disturbance of Occupied Nest Tree.** SJJPA will prohibit physical contact with an occupied nest
17 tree throughout the breeding season (March 1 to August 15). All workers within 650 feet will be
18 out of the line of sight of the occupied nest tree during breaks or will take breaks more than 650
19 feet from the occupied nest tree.
- 20 ● **Authority of CDFW-Approved Biologist.** If, during construction, the CDFW-approved biologist
21 determines that a nesting Swainson's hawk within 0.5 miles of the construction site is disturbed
22 by construction activities to the point where nest abandonment is likely, the CDFW-approved
23 biologist will have the authority to immediately stop work and will immediately notify SJJPA. A
24 designated representative from SJJPA will contact CDFW within 24 hours to determine
25 additional protective measures to be implemented. The CDFW-approved biologist will:
- 26 ○ Stop construction until additional protective measures are implemented, unless the
27 Swainson's hawk behavior normalizes on its own. Potential nest abandonment and failure
28 may be indicated if, in the CDFW-approved biologists professional judgment, the Swainson's
29 hawks exhibit distress and/or abnormal nesting behavior, such as swooping/stooping at
30 equipment or personnel, excessive distress-call vocalization or agitated behavior directed at
31 personnel, failure to remain on nest, or failure to deliver prey items.
- 32 ○ Continue monitoring and ensure additional protective measures remain in place until the
33 CDFW-approved biologist determines Swainson's hawk behavior has normalized.
- 34 ○ Determine if additional protective measures are ineffective and stop construction until the
35 additional protective measures are modified.
- 36 ○ Continue monitoring until determining that the Swainson's hawk behavior has normalized.
- 37 ○ The SJJPA representative or CDFW-approved biologist will notify CDFW within 24 hours if
38 nests or nestlings are abandoned and if the nestlings are still alive. The CDFW-approved
39 biologist will work with CDFW to determine appropriate actions.

1 **Burrowing Owl**

2 Burrowing owl is a state candidate species under CESA. The small mammal burrows in the annual
3 grassland provide nesting and wintering habitat for burrowing owls. Burrowing owls could also use
4 existing culverts as refuge during the breeding and non-breeding seasons. Ground disturbance and
5 construction vehicles could injure or kill burrowing owls by crushing occupied burrows or
6 collapsing burrow entrances, trapping any owls inside. Burrowing owls are moderately
7 maneuverable and foraging owls outside of their burrows would be able to avoid direct injury or
8 mortality from slow-moving or stationary construction equipment. Construction-generated noise
9 and vibration near nest burrows could cause adult owls to abandon eggs or recently hatched young,
10 or cause wintering owls to abandon their burrows, leaving them vulnerable to predation. Increased
11 noise from construction could also mask sounds made by prey, especially if the sounds are in the
12 high frequency range. Artificial sounds with low to mid frequencies may affect an owl's ability to
13 attract a mate (males produce low-frequency songs during mating season) or communicate warning
14 calls to mates or young (Scobie et al. 2016). Construction activities could expose burrowing owl to
15 dust if present in or adjacent to work areas, and the discharge of construction-related fluids could
16 also affect the species and its habitat. Impacts on burrowing owl would be potentially significant.
17 With implementation of MM BIO-2, MM BIO-3, and MM BIO-8, potential impacts would be reduced
18 to less than significant during Project construction.

19 **MM BIO-8: Conduct Surveys and Minimize Impacts on Burrowing Owl**

- 20 • To the maximum extent feasible (e.g., where the construction footprint can be modified),
21 construction activities within 500 feet of active burrowing owl burrows will be avoided during
22 the nesting season (February 1 to August 31).
- 23 • A qualified biologist will conduct preconstruction take avoidance surveys for burrowing owl no
24 less than 14 days prior to and within 24 hours of initiating ground-disturbing activities. The
25 survey area will encompass the work area and a 500-foot buffer around this area.
- 26 • If an active burrow is identified near a proposed work area, and work cannot be conducted
27 outside of the nesting season (February 1 to August 31), a no-activity zone will be established by
28 a qualified biologist in coordination with CDFW. The no-activity zone will be large enough to
29 avoid nest abandonment and will extend a minimum of 250 feet around the burrow.
- 30 • If burrowing owls are present at the site during the non-breeding season (September 1 to
31 January 31), a qualified biologist will establish a no-activity zone that extends a minimum of 150
32 feet around the burrow.
- 33 • If the designated no-activity zone for either breeding or non-breeding burrowing owls cannot be
34 established, a wildlife biologist experienced in burrowing owl behavior will evaluate site-
35 specific conditions and, in coordination with CDFW, recommend a smaller buffer (if possible)
36 and/or other measure that still minimizes disturbance of burrowing owls (while allowing
37 reproductive success during the breeding season). The site-specific buffer (and/or other
38 measure) will consider the type and extent of the proposed activity occurring near the occupied
39 burrow, duration and timing of the activity, sensitivity and habituation of burrowing owls, and
40 dissimilarity of the proposed activity to background activities.
- 41 • If burrowing owls are present in the direct disturbance area and cannot be avoided during the
42 non-breeding season (generally September 1 to January 31), burrowing owls may be excluded
43 from burrows through the installation of one-way doors at burrow entrances. A burrowing owl

1 exclusion plan, prepared by the SJPPA, must be approved by CDFW prior to exclusion of
2 burrowing owls. One-way doors (e.g., modified dryer vents or other CDFW-approved method),
3 which will be left in place for a minimum of 1 week and monitored daily to ensure that all
4 burrowing owls have left the burrow(s). Excavation of the burrow will be conducted using hand
5 tools. During excavation of the burrow, a section of flexible plastic pipe (at least 3 inches in
6 diameter) will be inserted into the burrow tunnel to maintain an escape route for any animals
7 that may be inside of the burrow. Burrowing owls will be excluded from their burrows as a last
8 resort and only if other avoidance and mitigation measures cannot be implemented.

- 9 • The qualified biologist will conduct ongoing surveillance of the Project study area for burrowing
10 owls during Project activities. If additional burrowing owls are observed using burrows within
11 500 feet of construction, the onsite biological monitor will determine, in coordination with
12 CDFW, if the individuals are or would be affected by construction activities and if additional
13 exclusion zones are required.
- 14 • In addition to initial breeding and non-breeding season surveys, SJPPA will also require that
15 preconstruction surveys be conducted, with one occurring 14 days prior to ground-breaking
16 and/or staging activities and another within 24 hours of these activities. These surveys will
17 confirm whether owls identified during the initial breeding and non-breeding season surveys
18 are still present or whether the previously unoccupied site has since become occupied by
19 burrowing owls.
- 20 • If active burrowing owls are observed in the Project study area during the breeding season,
21 SJPPA will compensate for the loss of suitable habitat through the purchase of credits at a
22 CDFW-approved conservation bank or through other site protection instruments at a minimum
23 of 1:1 ratio for permanent impacts on annual grassland.

24 **Western Pond Turtle**

25 Western pond turtle is under review for listing under FESA and is a CDFW SSC. Cottonwood Creek
26 provides aquatic habitat, and the annual grassland provides upland habitat for western pond turtle.
27 Construction activities may result in mortality, injury, or displacement of eggs, juvenile, and adult
28 western pond turtle, if present in the construction footprint. Trenches or excavation pits left open
29 overnight could also entrap the species. Construction activities could also have the potential to
30 result in degradation of aquatic and upland habitat from leaking or accidental spills of chemical or
31 petroleum-based products associated with equipment and vehicles used during construction. These
32 direct and indirect impacts on western pond turtle would be potentially significant. With
33 implementation of MM BIO-2, MM BIO-3, and MM BIO-9, potential impacts would be reduced to less
34 than significant during Project construction.

35 **MM BIO-9: Conduct Preconstruction Surveys and Minimize Impacts for Western Pond Turtle**

36 A qualified biologist will conduct preconstruction surveys within 24 hours prior to the initiation of
37 any ground-disturbing activities or vegetation clearing, including exclusion fence installation, in
38 areas identified as having suitable western pond turtle habitat. If there is a lapse in construction in a
39 work area for 7 days or more, these surveys will be repeated before activities resume. If a western
40 pond turtle is observed, construction will halt in that area until the species has voluntarily moved
41 outside of the work area on its own volition. No work will commence within 50 feet of the area until
42 the biologist verifies that the species is no longer present. Escape ramps or cover open trenches will
43 be installed at the end of each workday.

1 **California Tiger Salamander and Western Spadefoot**

2 California tiger salamander – Central California Distinct Population Segment is listed as Threatened
3 under both FESA and CESA. Western spadefoot is proposed as Threatened under FESA and is a
4 CDFW SSC. The existing small mammal burrows in the annual grassland provide underground
5 refugia for these species. The seasonal wetlands in, and in the vicinity of, the Project study area
6 could provide suitable aquatic habitat for these species. Construction impacts on potential aquatic
7 habitat would occur near Avenue 12 and Avenue 13. The Project may result in mortality, injury, or
8 displacement of juvenile and adult California tiger salamander and western spadefoot if the species
9 are present in aquatic habitat or subterranean refugia (small mammal burrows or soil cracks)
10 habitat during Project construction. Construction activities may crush small mammal burrows and
11 soil cracks occupied by these species and could potentially displace the species, exposing them to
12 predation or desiccation. Trenches or excavation pits left open overnight could also entrap the
13 species. Construction activities could also have the potential to result in degradation of aquatic and
14 upland habitat from leaking or accidental spills of chemical or petroleum-based products associated
15 with equipment and vehicles used during construction. Construction activities may also displace or
16 eradicate small mammals that excavate and create subterranean refuge, decreasing suitable
17 burrows for the species to utilize the upland habitat.

18 Indirect impacts associated with grading could result in a permanent change and significant impact
19 to the hydrology of nearby wetlands, causing a reduction in the size of the supporting watershed
20 and the potential to alter the subsurface hydrology, subsequently reducing the habitat's ability to
21 support suitable breeding. SJPPA assumes presence of California tiger salamander and western
22 spadefoot in the seasonal wetlands and annual grassland. With implementation of MM BIO-2,
23 MM BIO-3, and MM BIO-10, potential impacts would be reduced to less than significant during
24 Project construction.

25 **MM BIO-10: Implement Protection Measures to Avoid, Minimize, and Compensate for Impacts** 26 **on Suitable California Tiger Salamander and Western Spadefoot Habitat**

27 SJPPA will obtain a Biological Opinion with an incidental take statement from USFWS and an ITP
28 from CDFW prior to commencement of construction. SJPPA will purchase credits at an approved
29 California tiger salamander mitigation bank at the ratio specified in the permits. Before discharge of
30 fill material, three preservation credits will be obtained from a USFWS- and CDFW-approved
31 mitigation bank for every acre of breeding and upland habitat permanently lost. This would satisfy
32 the loss of western spadefoot habitat should it become listed because these species occupy similar
33 upland and aquatic habitat types. The exact acreage will be determined during the consultation
34 process.

35 A qualified biologist will prepare a relocation plan prior to commencement of construction activities.

36 A qualified biologist will conduct a preconstruction clearance survey within 24 hours prior to
37 commencement of construction activities in suitable upland and aquatic habitat.

38 Prior to the start of construction, high-visibility temporary construction fencing will be installed
39 along the perimeter of the limits of disturbance in areas within 250 feet of environmentally sensitive
40 areas (e.g., aquatic features including seasonal wetlands) to prevent encroachment of construction
41 equipment. Straw wattles or silt fencing will be installed immediately behind the high-visibility
42 construction fencing to prevent soil deposition from affecting sensitive areas.

1 The contractor will install escape ramps or cover open trenches at the end of each workday.

2 **Northern California Legless Lizard, California Glossy Snake, and Coast Horned Lizard**

3 Northern California legless lizard, California glossy snake, and coast horned lizard are CDFW SSC.
4 The annual grassland in the Project study area provides suitable habitat for these species. Potential
5 direct effects on individuals include mortality and injury. Construction-related ground disturbance
6 (e.g., grading, grubbing, and excavation) and construction equipment and vehicle traffic may injure
7 or kill individuals by running them over, crushing occupied burrows or other unground refuge, and
8 displacing individuals exposing them to predators. Individuals may become entrapped in excavated
9 areas, pipes, or other equipment used for construction. The use of chemicals and hazardous
10 substances during construction (e.g., oils and gasoline) may also cause mortality or injury if
11 individuals enter habitat that has been contaminated by spills or other vehicle and equipment leaks.
12 Individuals may be harmed by these substances through dermal contact and absorption, or
13 consumption of contaminated prey, which would be a significant impact. With implementation of
14 MM BIO-2, MM BIO-3, and MM BIO-11, potential impacts would be reduced to less than significant
15 during Project construction.

16 **MM BIO-11: Conduct Preconstruction Surveys for Northern California legless lizard,** 17 **California glossy snake, and coast horned lizard**

18 To avoid potential injury or mortality of Northern California legless lizard, California glossy snake,
19 and coast horned lizard, SJJPA will retain a qualified biologist to conduct a preconstruction survey
20 for special-status reptiles no more than 24 hours prior to initial vegetation removal, grubbing,
21 grading, and other initial ground-disturbing activities.

22 If at any time special-status reptiles are observed in the Project footprint and have the potential to
23 be harmed by active construction activities, as determined by the biological monitor, construction
24 activities in the immediate area will cease until the special-status reptile has been allowed to leave
25 the construction area of its own volition. If necessary, the special-status reptile may be relocated by
26 a biological monitor.

27 **American Badger**

28 American badger is a CDFW SSC. The burrows in the annual grassland provide suitable habitat for
29 this species. Construction activities could result in the injury, mortality, and disruption of foraging,
30 breeding, and dispersal of American badgers. These effects could result from Project grading,
31 excavation, use of construction-related vehicles, and exposure of badgers to construction-related
32 fluids, such as fuels, oils, and cement, which would result in a significant impact. With
33 implementation of MM BIO-2, MM BIO-3, and MM BIO-12, potential impacts would be reduced to
34 less than significant during Project construction.

35 **MM BIO-12: Conduct Preconstruction Surveys for American Badger**

36 A qualified biologist will conduct a preconstruction survey for American badger concurrently with
37 the preconstruction surveys for burrowing owl. If an active den is detected in the work area, SJJPA
38 will establish a suitable buffer distance, and the den will be avoided until the biologist determines
39 that the den is no longer active through direct monitoring, wildlife cameras, or a camera probe.
40 Potential dens that are determined to be inactive by one or more of the aforementioned methods

1 will be collapsed by hand to prevent occupation of the den between the time of the survey and
2 construction activities.

3 **Non-Special-Status Migratory Birds and Other Birds of Prey**

4 Non-special-status migratory and passerine birds and raptors have the potential to nest and forage
5 on the ground, in the trees, and under the bridges in the Project study area. The breeding season for
6 nesting birds and raptors generally extends from February 1 to August 31 (and through September
7 15 to include the nesting season for Swainson’s hawk), although nesting periods vary by species. If
8 active nests are present on the ground, in the trees, and under the bridges, construction activities
9 associated with clearing and grubbing, and noise and vibration to destroy active nests or result in
10 nest abandonment. The nests and eggs of any bird are protected from take pursuant to CFGC Section
11 3503. Impacts on active nests would be significant. With implementation of MM BIO-2, MM BIO-3,
12 and MM BIO-13, potential impacts would be reduced to less than significant during Project
13 construction.

14 **MM BIO-13: Conduct Preconstruction Surveys for Nesting Birds**

15 A qualified biologist will conduct a preconstruction survey for active nests if construction is
16 anticipated to commence during the nesting season for birds of prey and migratory birds
17 (February 1 to September 15). The preconstruction survey will be conducted within 30 days prior to
18 commencement of construction activities. If surveys show that there is no evidence of nests, then no
19 additional mitigation will be required so long as construction commences within 30 days of the
20 survey.

21 If any active nests are located in the Project study area, a qualified biologist will establish an
22 appropriate avoidance buffer around the nests. The qualified biologist will monitor nests weekly
23 during construction to evaluate potential nesting disturbance by construction activities. The
24 biologist will delimit the buffer zone with construction tape or pin flags. Generally accepted
25 avoidance buffers are approximately 250 feet for non-special-status raptors and approximately 100
26 feet for nesting migratory and passerine birds. The buffers will remain intact until the biologist
27 determines that the nest is no longer active.

Impact BIO-2	Construction of the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
Level of Impact	No Impact

28 The Project study area contains some individual riparian trees in Cottonwood Creek but does not
29 support a riparian natural community. There are no other sensitive natural communities in the
30 Project study area; therefore, no impacts would occur.

Impact BIO-3 Construction of the Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Level of Impact **Less than Significant with Mitigation Incorporated**

1 Potentially jurisdictional wetlands and other WoUS include Cottonwood Creek and seasonal
2 wetlands. Other aquatic resources may be present in inaccessible areas not surveyed in the Project
3 study area. Formal delineations of potentially jurisdictional wetlands and other WoUS and/or WoS
4 in the Project study area have not been conducted.

5 SJJPA would demonstrate that there is no net loss of wetlands and other WoUS and WoS through
6 compliance with the CWA Section 404 requirements. CWA Sections 404 and 401 Permits will be
7 required for the fill of potentially jurisdictional WoUS and WoS. Approximately 1.49 acres of
8 potentially jurisdictional WoUS and WoS would be affected through removal of 1.25 acres of
9 intermittent stream and 0.24 acre of seasonal wetland. However, additional aquatic resources may
10 be affected and not accounted for in the inaccessible portions of the Project study area, which would
11 result in a significant impact. The final acreage will be determined through the permitting process.
12 With implementation of MM BIO-14, potential impacts would be reduced to less than significant
13 during Project construction.

14 **MM BIO-14: Avoid, Minimize, and Mitigate Disturbance of Waters of the United States and**
15 **Waters of the State**

16 Saturated or ponded aquatic resources proposed for preservation will be avoided during the wet
17 season (spring and winter) to the maximum extent possible. Where such activities are unavoidable,
18 protective practices such as use of padding or vehicles with balloon tires will be employed.

19 Exposed drainage banks along Cottonwood Creek will be stabilized immediately on completion of
20 construction activities. Cottonwood Creek will be restored in a manner that encourages vegetation
21 to re-establish to its pre-project condition and reduces the effects of erosion on the drainage system.

22 Any trees, shrubs, debris, or soils that are inadvertently deposited below the ordinary high water
23 mark of Cottonwood Creek will be removed in a manner that minimizes disturbance of the drainage
24 bed and bank.

25 To the extent possible, in-stream construction in the ordinary high water mark of Cottonwood Creek
26 will be restricted to the low-flow period (generally April through October).

27 All activities will be completed promptly to minimize their duration and resultant impacts.

28 SJJPA will ensure no net loss through one of the following options:

- 29 • Purchase offsite mitigation bank credits for the affected wetland and other waters at a USACE-
30 approved mitigation bank. If mitigation is in the form of restoration/creation credits, the
31 mitigation will be at a minimum ratio of 1:1 (1 acre of restored or created aquatic resource type
32 for each acre of aquatic resource removed). If mitigation is in the form of preservation credits,
33 the mitigation will be at a minimum ratio of 2:1 (2 acres of preserved aquatic resource type for
34 each acre of aquatic resource removed).
- 35 • Develop an aquatic resources mitigation plan, subject to approval by USACE and the Central
36 Valley RWQCB, that will ensure no net loss of wetlands or other waters from project impacts.

1 The plan will detail the amount and type of wetlands and other waters (based on the verified
2 aquatic resources delineation) that will compensate for (through preservation, creation, or
3 restoration) impacts on existing wetlands and other waters of the United States (aquatic
4 resources) and the state and outline the monitoring and success criteria for the compensation of
5 wetlands and other WoUS and WoS. Compensatory mitigation will include creating or
6 preserving wetlands and other waters at a minimum 1:1 ratio (1 acre restored or created for
7 each acre filled).

Impact BIO-4	Construction of the Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
Level of Impact	Less than Significant

9 The majority of terrestrial habitats in the Project study area does not serve as significant wildlife
10 corridors or linkages for special-status terrestrial species. Although the California High-Speed Rail
11 Authority (the Authority) Environmental Impact Report/Environmental Impact Statement (the
12 Authority and Federal Railroad Administration 2012) does not identify Cottonwood Creek as one of
13 the important or major wildlife corridors in the region, it is the only established native resident or
14 migratory wildlife corridor that crosses the Project footprint. Cottonwood Creek is mapped as
15 essential fish habitat defined by Magnuson–Stevens Fisheries Conservation and Management Act for
16 Pacific Coast Salmon; however, there is no suitable habitat to support chinook salmon or any other
17 salmon species and, therefore, no impacts would occur. The creek is mapped as an ephemeral or
18 intermittent drainage, so its creek bed is often dry, and the channel from the top of bank on each
19 side, including the upland/riparian vegetation, is 250 feet wide. These conditions are suitable for
20 free-roaming wildlife to utilize the channel to migrate, and the San Joaquins and the Authority track
21 crossing are elevated over the channel, so there is no barrier to movement (SJJPA 2021).

22 No direct impacts to wildlife corridors would occur, but indirect effects could occur from
23 construction activities such as noise, lighting, and motion. Construction activities would likely
24 temporarily disturb or displace local wildlife, but normal movement would be expected to occur
25 once construction activities are complete. Some wildlife, including birds or nocturnal species, are
26 likely to still use the habitats opportunistically during construction.

27 These impacts would be temporary, and minor given that the Project is not in a major movement
28 corridor and, therefore, impacts would be less than significant.

Impact BIO-5	Construction of the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
Level of Impact	No Impact

29 The Project would not conflict with any known local policies or ordinances described in Section
30 3.3.2.3, above, and would be consistent with provisions in the Madera County General Plan for
31 protecting biological resources. Therefore, no impact would occur.

1 **Project Operations**

2 Impacts to sensitive or special status habitat or species are not anticipated to occur within the
3 Project Footprint given the existing disturbances during operations within the areas of the proposed
4 Project components. With adherence to existing regulations, impacts to riparian habitat or other
5 sensitive vegetation communities would be less than significant during Project operations.

6 Operation of the Project would not result in any discharge of fill or waste material within any
7 delineated jurisdictional aquatic resources. Therefore, impacts to state or federally protected
8 wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal,
9 filling, hydrological interruption, or other means would be less than significant.

10 Commonly utilized corridors for wildlife movement are anticipated within the Project study area;
11 however, wildlife crossings would be provided as part of the Project and would not result in impacts
12 to wildlife movement. Further, operation of the Project is not anticipated to impact or disturb
13 nesting migratory species covered under MBTA or CDFW code. With adherence to existing
14 regulations, impacts would be less than significant impact during Project operations.

15 Operational activities associated with the Project would not result in any potential conflicts with
16 local policies that protect biological resources. The Project site does not contain trees that fall under
17 the definition of a heritage tree and there are no protected trees within the Project site. It is unlikely
18 that existing mature trees on site would be removed at the time of operation. Compliance with
19 existing local policies that protect biological resources, such as trees, would ensure that the impacts
20 would be less than significant during Project operations.