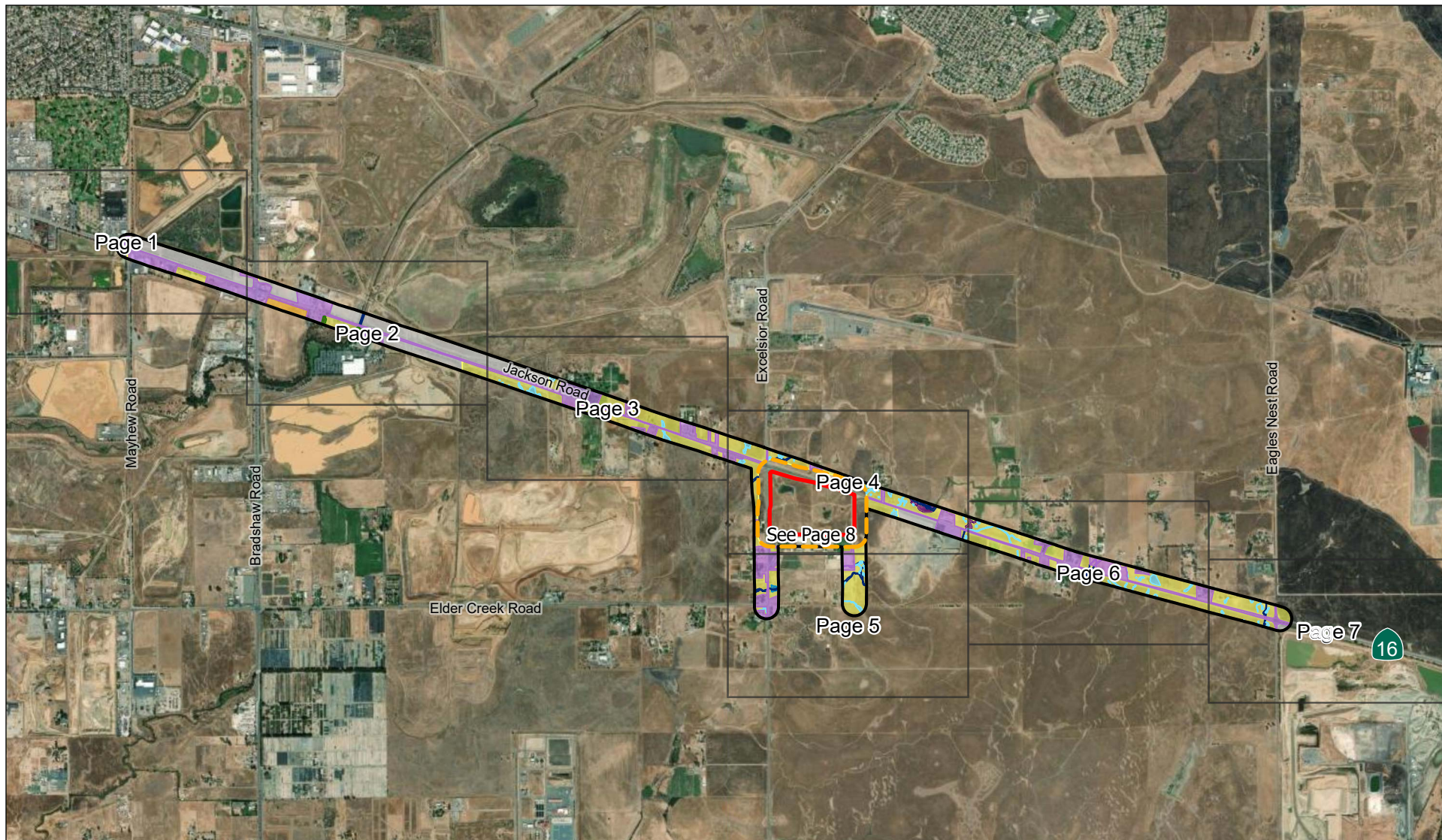


Appendix B

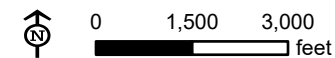
BIOLOGICAL RESOURCES INFORMATION

1. SMUD HCP Land Cover Mapping
2. Special-status Species Lists (USFWS, CDFW, CNPS, and NMFS)
3. Table of Special-status Plants and Wildlife with Potential to Occur

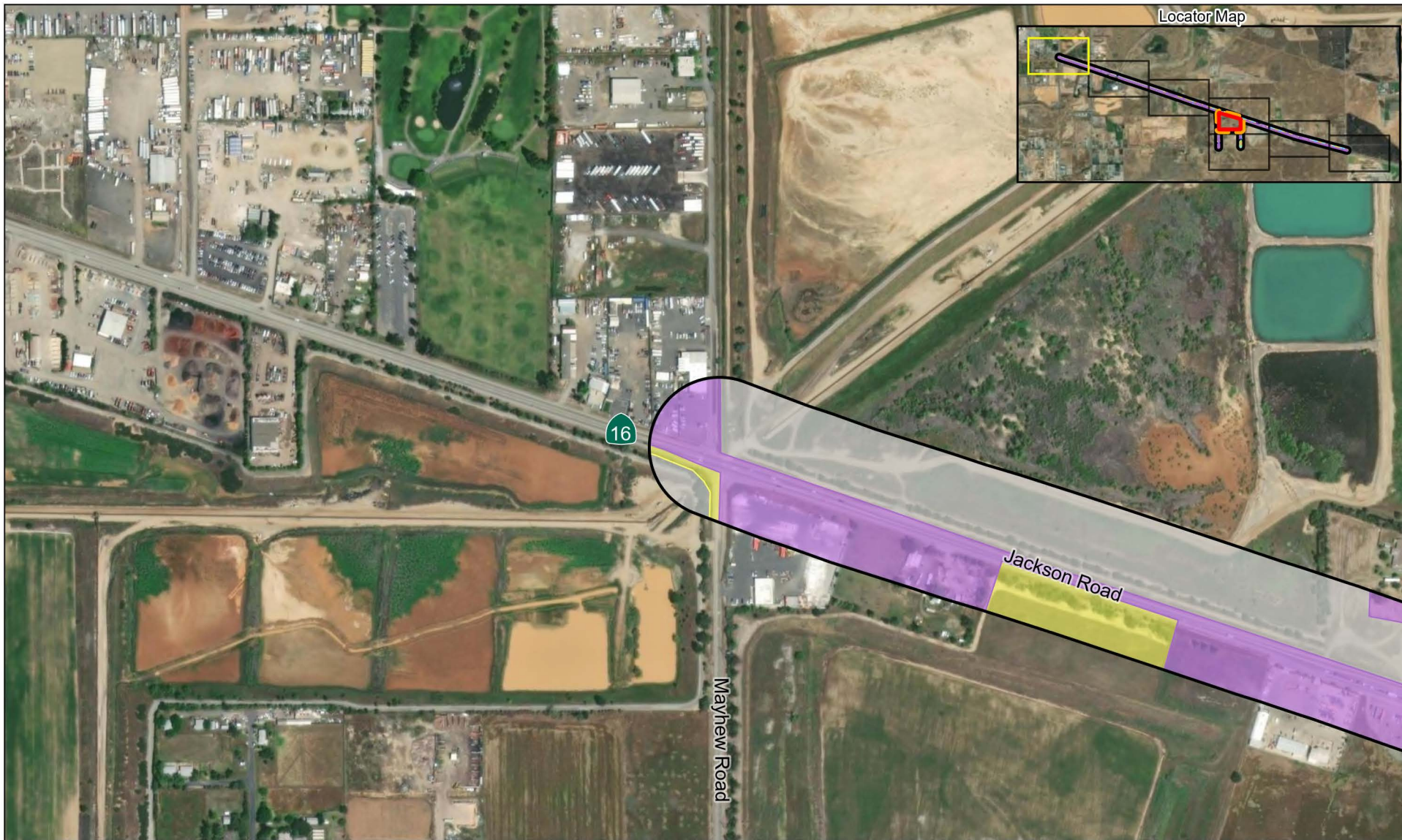


JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

- | | |
|--|--|
| <p> 250 ft Buffer of Project Activities</p> <p> Proposed Substation</p> <p> Field Verified Land Cover (see Page 8)</p> <p> Map Grid Index with Page Number</p> | <p>Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types</p> <p> Cropland</p> <p> Grasses and Forbs</p> <p> Pasture</p> <p> Urban</p> <p> Barren/Disturbed</p> <p> Valley Foothill Riparian</p> <p> Riverine</p> <p> Open Water/Fringe</p> <p> Other Depressional Wetland</p> <p> Seasonal Wetland/Seasonal Swale and Vernal Pool</p> |
|--|--|



Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-9-26

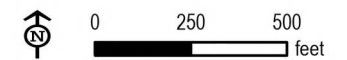


JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types

250 ft Buffer of Project Activities

- Barren/Disturbed
- Grasses and Forbs
- Urban



Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

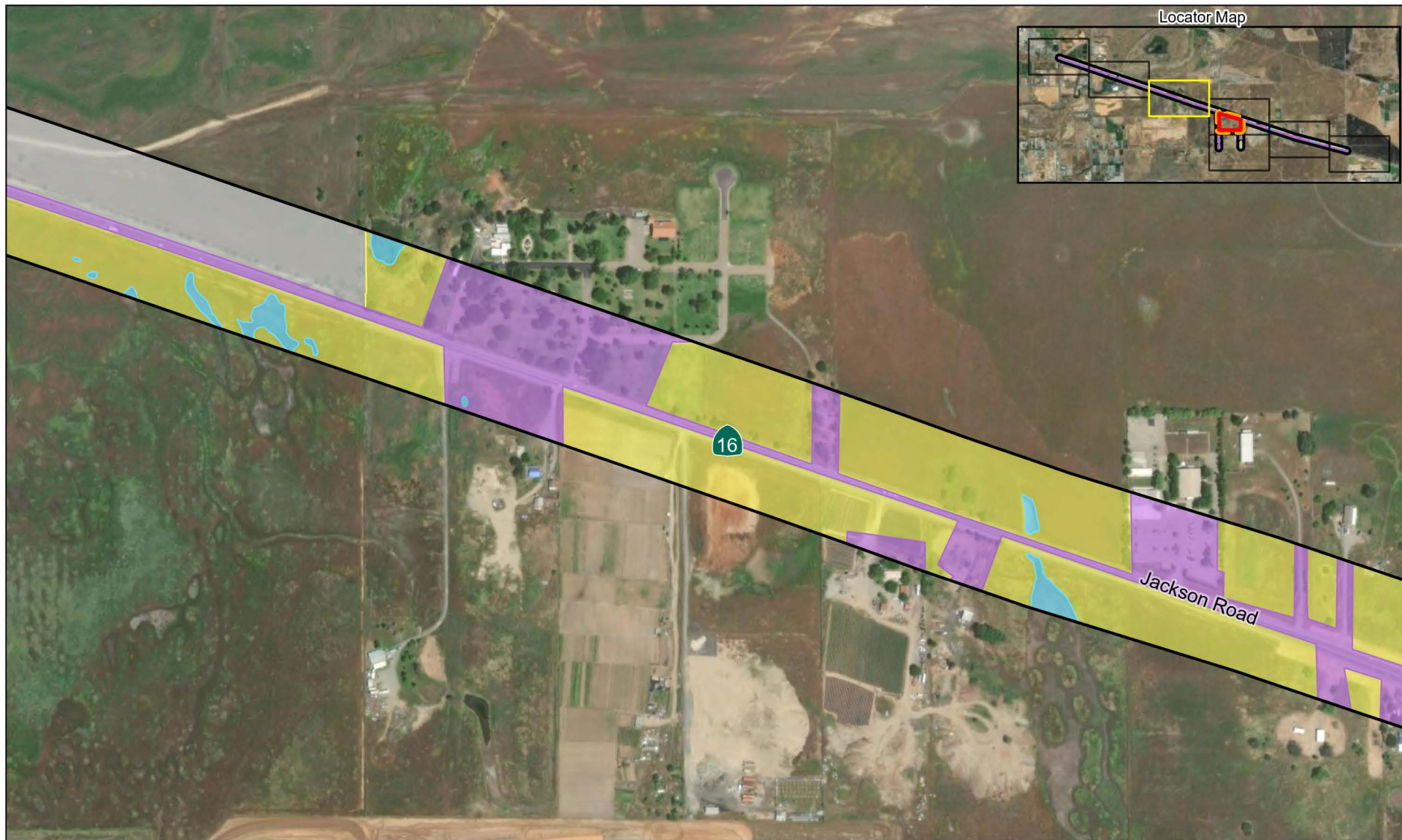
Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types

250 ft Buffer of Project Activities

- | | |
|-------------------|--------------------------|
| Barren/Disturbed | Urban |
| Cropland | Valley Foothill Riparian |
| Grasses and Forbs | |
| Riverine | |



Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types

 250 ft Buffer of Project Activities

 Barren/Disturbed

 Grasses and Forbs

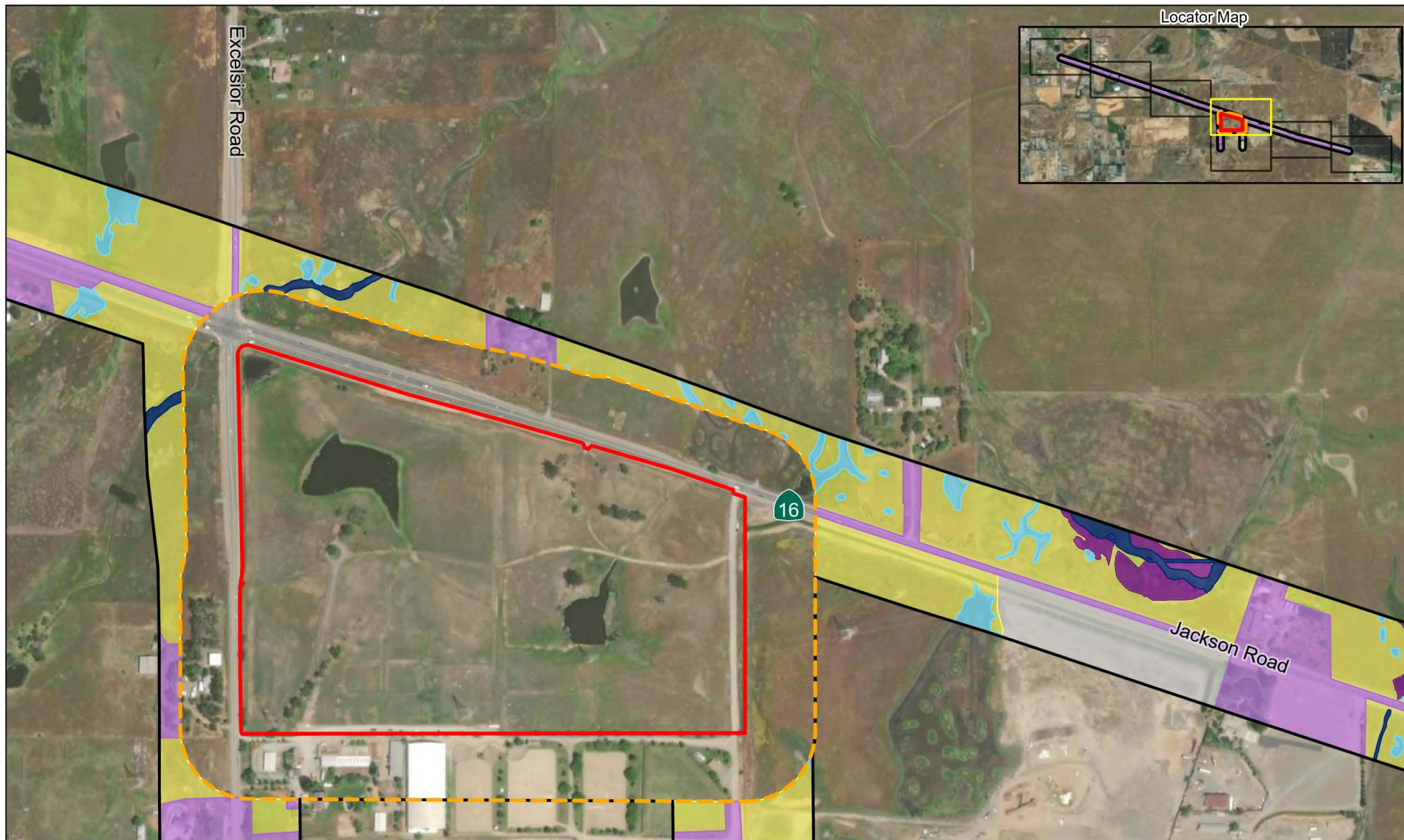
 Seasonal Wetland/Seasonal Swale and Vernal Pool

 Urban



0 250 500 feet

Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types

250 ft Buffer of Project Activities

Proposed Substation

Field Verified Land Cover (see Page 8)

Barren/Disturbed

Grasses and Forbs

Other Depressional Wetland

Riverine

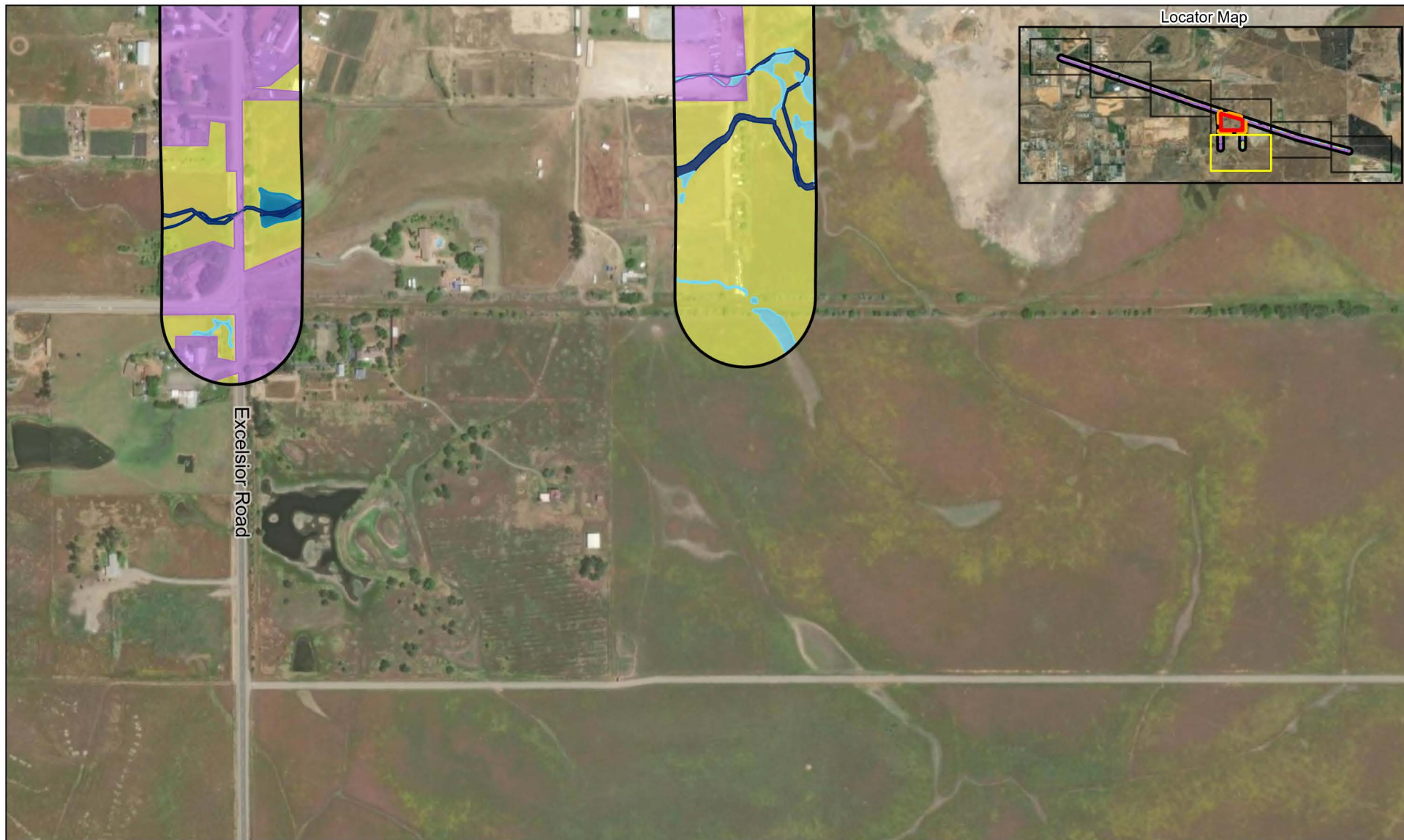
Seasonal Wetland/Seasonal Swale and Vernal Pool

Urban



0 250 500 feet

Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022; ESRI aerial imagery, accessed 2026; Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types

 250 ft Buffer of Project Activities

 Grasses and Forbs

 Urban

 Open Water/Fringe

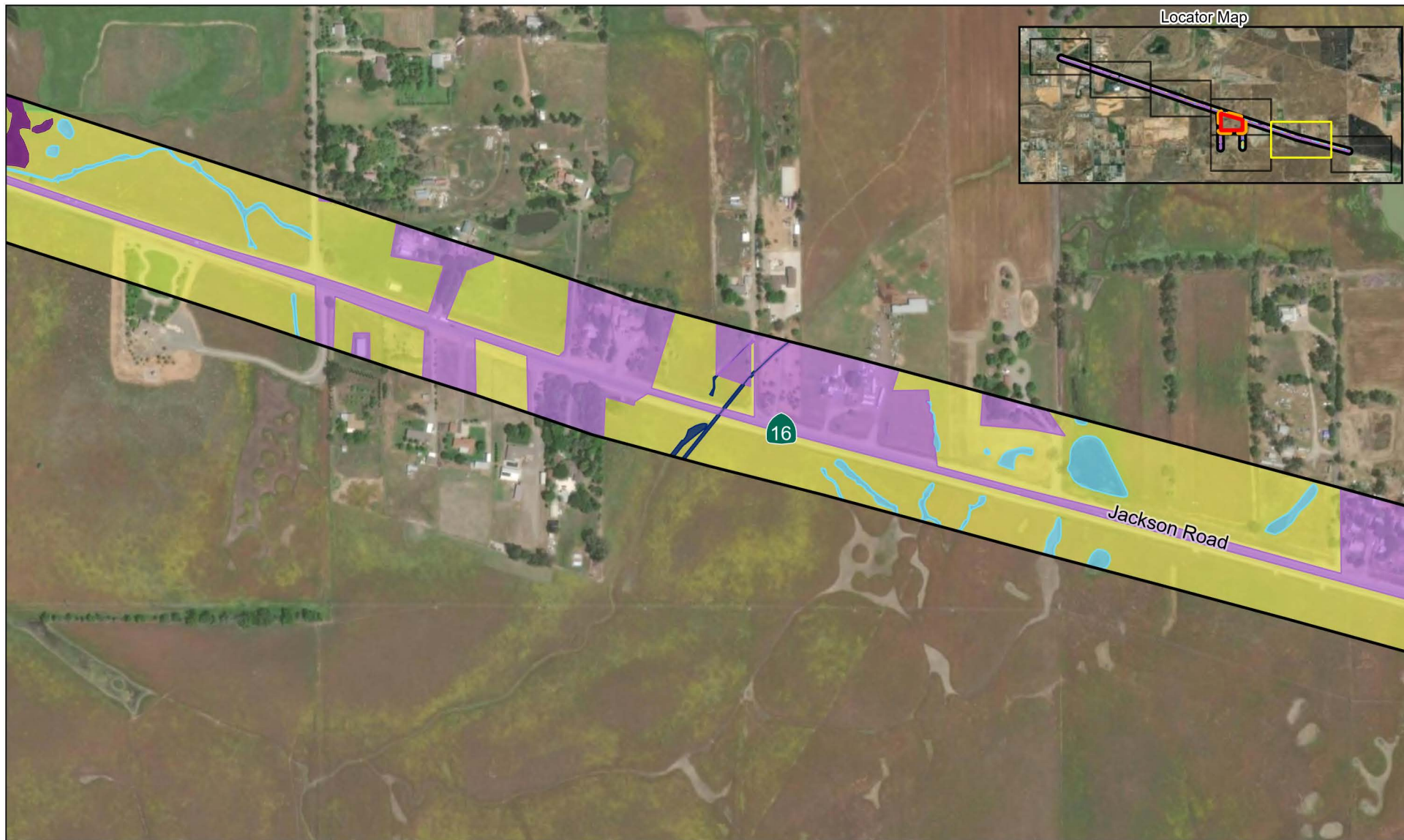
 Riverine

 Seasonal Wetland/Seasonal Swale and Vernal Pool



0 250 500
feet

Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

**Sacramento Municipal Utility District Habitat Conservation
Plan (SMUD HCP) Land Cover Types**

 250 ft Buffer of Project Activities

 Grasses and Forbs

 Other Depressional Wetland

 Pasture

 Riverine

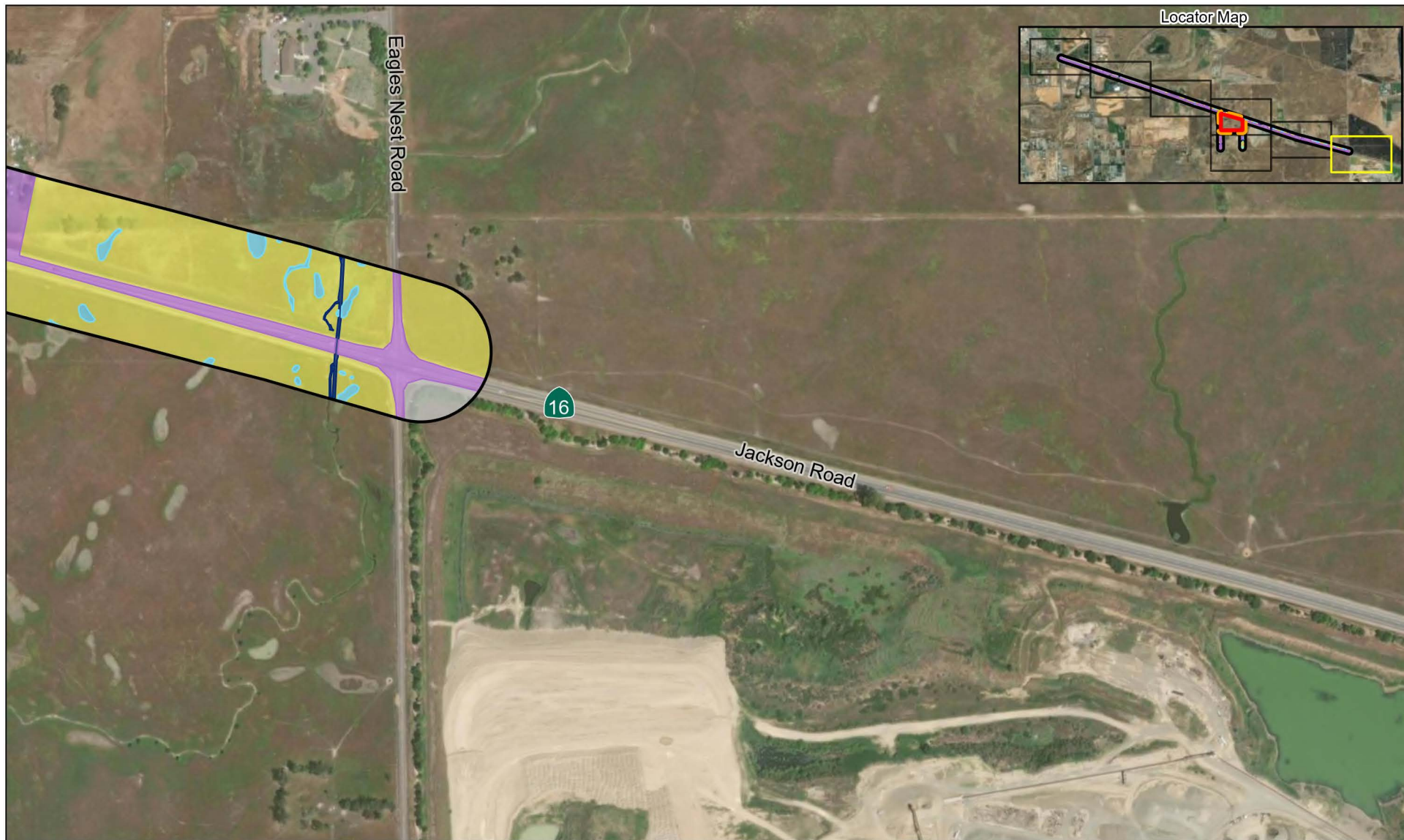
 Seasonal Wetland/Seasonal Swale and Vernal Pool

 Urban



0 250 500
feet

Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

Sacramento Municipal Utility District Habitat Conservation Plan (SMUD HCP) Land Cover Types

 250 ft Buffer of Project Activities

 Barren/Disturbed

 Urban

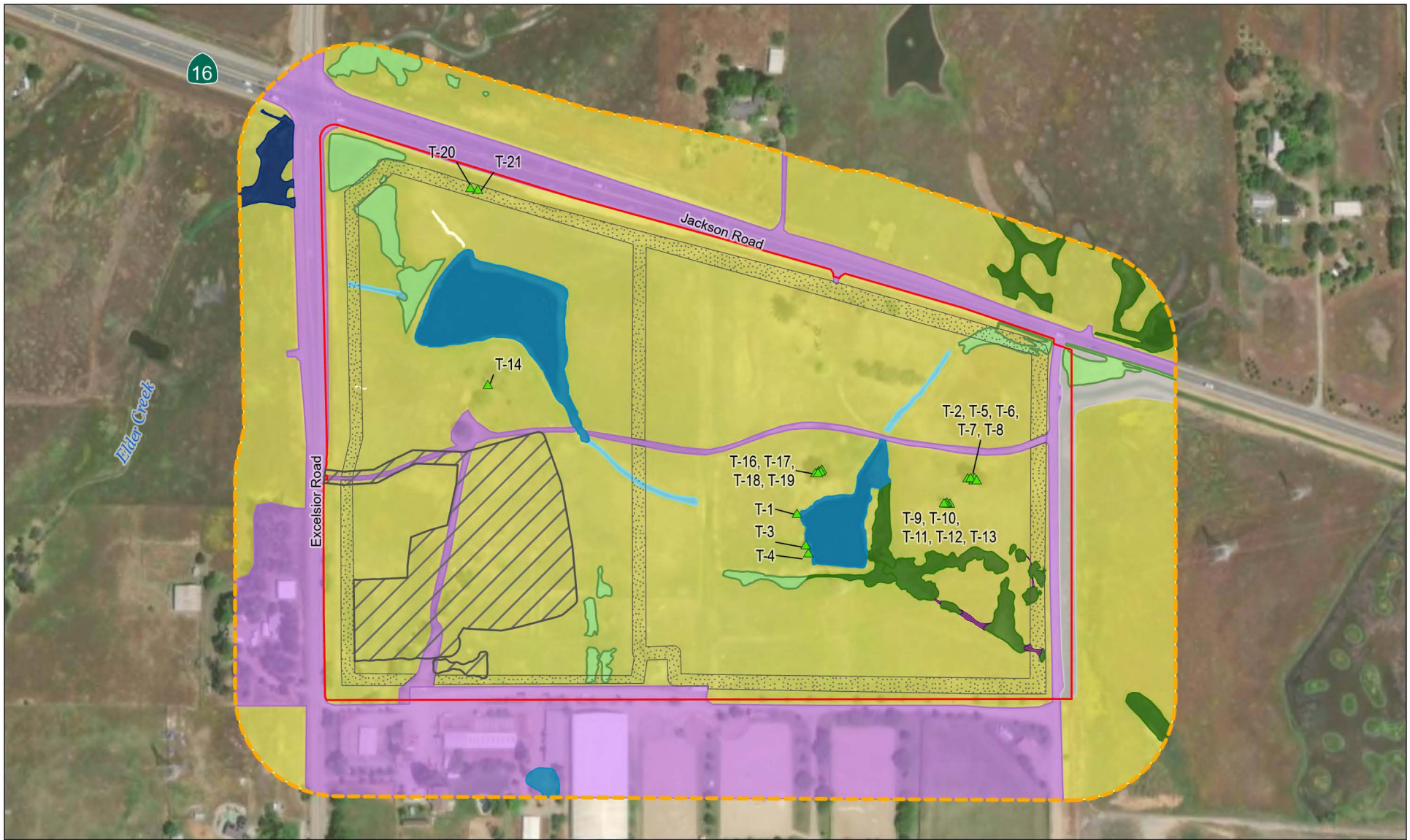
 Grasses and Forbs

 Riverine

 Seasonal Wetland/Seasonal Swale and Vernal Pool



Data Source: - Sacramento Municipal Utility District Habitat Conservation Plan 2022;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



JACKSON BULK SUBSTATION PROJECT, SACRAMENTO COUNTY, CALIFORNIA

- Proposed Substation
- Field Survey Area
- Firebreaks
- Areas of Temporary Disturbance
- ▲ Trees

Land Cover

- Urban
- Barren/Disturbed
- Riverine
- Grasses and Forbs
- Grasses and Forbs
- Upland Ditch

- Open Water/Fringe
- Seasonal Wetland/Seasonal Swale and Vernal Pool
- Seasonal Wetland
- Seasonal Swale
- Vernal Pool
- Vernal Swale



Data Source: - Area West Environmental, Inc 2026;
ESRI aerial imagery, accessed 2026;
Date: 2-10-26



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

01/29/2026 00:29:53 UTC

Project Code: 2026-0042524

Project Name: Jackson Bulk Substation Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2026-0042524

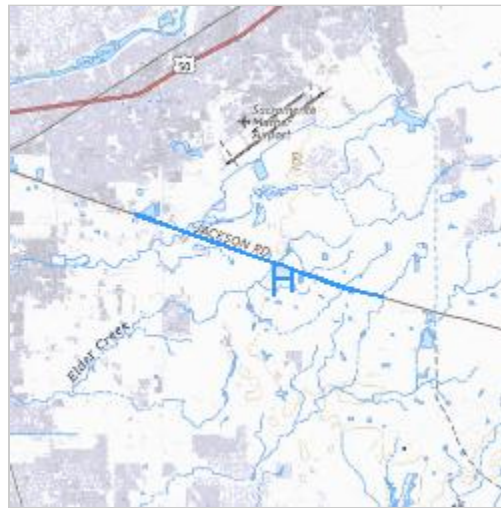
Project Name: Jackson Bulk Substation Project

Project Type: Distribution Line - Maintenance/Modification - Above Ground

Project Description: Construction of a bulk substation and subtransmission lines.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.520346849999996,-121.3034359943035,14z>



Counties: Sacramento County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹ as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#) also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

REPTILES

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3EK45555JG45OCCCKX3TW6GEHQ/documents/generated/11271.pdf	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot <i>Spea hammondi</i> Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3EK45555JG45OCCCKX3TW6GEHQ/documents/generated/11271.pdf	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3EK45555JG45OCCCKX3TW6GEHQ/documents/generated/11271.pdf	Proposed Threatened
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3EK45555JG45OCCCKX3TW6GEHQ/documents/generated/11271.pdf	Endangered

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3EK45555JG45OCCX3TW6GEHQ/documents/generated/11271.pdf	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246 General project design guidelines: https://ipac.ecosphere.fws.gov/project/C3EK45555JG45OCCX3TW6GEHQ/documents/generated/11271.pdf	Endangered

FLOWERING PLANTS

NAME	STATUS
Sacramento Orcutt Grass <i>Orcuttia viscida</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5507	Endangered
Slender Orcutt Grass <i>Orcuttia tenuis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1063	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Area West Environmental Inc.

Name: Becky Rozumowicz

Address: 6248 Main Avenue, Suite C

City: Orangevale

State: CA

Zip: 95662

Email: frontdesk@areawest.net

Phone: 9169873362



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Citrus Heights (3812163) OR Folsom (3812162) OR Carmichael (3812153) OR Elk Grove (3812143) OR Sloughhouse (3812142) OR Buffalo Creek (3812152) OR Rio Linda (3812164) OR Florin (3812144) OR Sacramento East (3812154))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G3	S2	SSC
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G3T3	S3	WL
<i>Andrena blennospermatis</i> Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S1	
<i>Andrena subapasta</i> An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astur cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Bombus pensylvanicus</i> American bumble bee	IIHYM24260	None	None	G3G4	S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branchinecta mesoavallensis</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
<i>Calycadenia spicata</i> spicate calycadenia	PDAST1P090	None	None	G3?	S3	1B.3



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Clarkia biloba ssp. brandegeae</i> Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Cuscuta obtusiflora var. glandulosa</i> Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T3	S3	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dumontia oregonensis</i> hairy water flea	ICBRA23010	None	None	G1G3	S1	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Elderberry Savanna</i> Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Fritillaria agrestis</i> stinkbells	PMLIL0V010	None	None	G3	S3	4.2
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S2	
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2G3	S2	1B.2
<i>Great Valley Valley Oak Riparian Forest</i> Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
<i>Hibiscus lasiocarpus var. occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Juncus leiospermus var. ahartii</i> Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G4	S3S4	
<i>Lasthenia chrysantha</i> alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Lepidium latipes var. heckardii</i> Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1	1B.2
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Melospiza melodia pop. 1</i> song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
<i>Nannopterum auritum</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Navarretia myersii ssp. myersii</i> pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Northern Volcanic Mud Flow Vernal Pool</i> Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	SSC
<i>Orcuttia tenuis</i> slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<i>Orcuttia viscida</i> Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020	None	None	G3	S3	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S3	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	Proposed Threatened	None	G2G3	S3S4	SSC
<i>Spirinchus thaleichthys pop. 2</i> longfin smelt - San Francisco Bay-Delta DPS	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Valley Needlegrass Grassland</i> Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 62



CALIFORNIA
NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

20 matches found. Click on scientific name for details

Search Criteria: , 9-Quad include [3812162:3812163:3812153:3812143:3812142:3812152:3812164:3812144:3812154]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
<i>Brodiaea rosea</i> ssp. <i>vallicola</i>	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G4G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
<i>Calycadenia spicata</i>	spicate calycadenia	Asteraceae	annual herb	May-Sep	None	None	G3?	S3	1B.3		2023-04-05	 © 2023 Christopher Bronny
<i>Centromadia parryi</i> ssp. <i>rudis</i>	Parry's rough tarplant	Asteraceae	annual herb	May-Oct	None	None	G3T3	S3	4.2	Yes	2007-05-22	 © 2019 John Doyen
<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	None	None	G5T4?	SH	2B.2		2011-08-24	No Photo Available

<i>Downingia pusilla</i>	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
<i>Fritillaria agrestis</i>	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2	Yes	1980-01-01	 © 2016 Aaron Schusteff
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2G3	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham
<i>Hesperevax caulescens</i>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	None	None	G3	S3	4.2	Yes	2001-01-01	 © 2017 John Doyen
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	Yes	1974-01-01	 © 2020 Steven Perry
<i>Juncus leiospermus</i> var. <i>ahartii</i>	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	G2T1	S1	1B.2	Yes	1984-01-01	 © 2004 Carol W. Witham
<i>Lasthenia chrysanth</i>	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019-09-30	 © 2009 California State University, Stanislaus

<i>Legenere limosa</i>	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01		© 2025 Adam Searcy
<i>Lepidium latipes</i> var. <i>heckardii</i>	Heckard's pepper-grass	Brassicaceae	annual herb	Mar-May	None	None	G4T1	S1	1B.2	Yes	1994-01-01		2018 Jennifer Buck
<i>Navarretia eriocephala</i>	hoary navarretia	Polemoniaceae	annual herb	May-Jun	None	None	G4?	S4?	4.3	Yes	1974-01-01		© 2018 Leigh Johnson
<i>Navarretia myersii</i> ssp. <i>myersii</i>	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994-01-01		© 2020 Leigh Johnson
<i>Orcuttia tenuis</i>	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	FT	CE	G2	S2	1B.1	Yes	1974-01-01		© 2013 Justy Leppert
<i>Orcuttia viscida</i>	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974-01-01		© Rick York and CNPS
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01		©2013 Debra L. Cook

2/9/26, 9:11 AM

CNPS Rare Plant Inventory | Search Results

<i>Trifolium</i>	saline	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	2001-01-01	
<i>hydrophilum</i>	clover											© 2005
												Dean Wm
												Taylor

Showing 1 to 20 of 20 entries

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SMUD Jackson Bulk Substation

From edeng . <edeng@areawest.net>

Date Mon 2/9/2026 3:11 PM

To NMFS SpeciesList - NOAA Service Account <nmfs.wcrca.specieslist@noaa.gov>

Bulk substation construction and overhead line upgrades and construction

Quad Name Carmichael

Quad Number 38121-E3

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - X

SRWR Chinook Salmon ESU (E) - X

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - X

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - X

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) - ESA
Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -
ESA Pinnipeds

Guadalupe Fur Seal (T) -
Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - X
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -
MMPA Species (See list)

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

MMPA Cetaceans -
MMPA Pinnipeds -



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AWE Reference Number:

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
spicate calycadenia <i>Calycadenia spicata</i>	--	-- /1B.3	Amador, Butte, Calaveras, El Dorado, Kern, Mariposa, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tulare, Tuolumne, and Yuba counties.	Cismontane woodlands and valley and foothill grasslands	May-Sep	P	Low. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports grasses and forbs land cover suitable for this species. The species is not covered by the SMUD HCP; therefore, modeled habitat for the species is not depicted within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	--	-- /2B.2	Butte, Colusa, Los Angeles, Merced, Sacramento, San Bernadino, and Sonoma counties.	Freshwater marshes and swamps	Jul-Oct	P	Low. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. Additionally, the proposed substation site supports only low quality other depressional wetland land cover. The Project area supports other depressional wetland land cover suitable for this species. The species is not covered by the SMUD HCP; therefore, modeled habitat for the species is not depicted within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
dwarf downingia <i>Downingia pusilla</i>	--	-- /2B.2	Butte, Calaveras, El Dorado, Fresno, Mariposa, Merced, Napa, Placer, Sacramento, San Joaquin, Shasta, Solano, Sonoma, Stanislaus, Sutter, Tehama, Tuolumne, and Yuba counties.	Mesic valley and foothill grasslands and vernal pools	Mar-May	P	Low. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. The species is not covered by the SMUD HCP. The SSHCP depicts modeled habitat for the species within the seasonal wetland/seasonal swale and vernal pool habitat west of the proposed substation north of Jackson Road within the Project area. However, there are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	--	SE/1B .2	El Dorado, Fresno, Lake, Lassen, Madera, Mendocino, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, Solano, Sonoma, and Tehama counties.	Marshes and swamps at lake margins and vernal pools with clay substrate	Apr-Aug	P	Moderate. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. However, the proposed substation site supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species and the cutting of firebreaks at the proposed substation site had the potential of removing this species before identification. The Project area supports seasonal wetland/seasonal swale and vernal pool and other depressional wetland land cover suitable for this species. The species is not covered by the SMUD HCP, however, the SSHCP depicts modeled habitat for the species present within the seasonal wetland/seasonal swale and vernal pool habitats in the eastern half of the Project area. There are 8 CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	--	--/1B.2	Alameda, Butte, Colusa, Contra Costa, Glenn, Sacramento, San Joaquin, Solano, Sutter, Tehama, and Yolo counties.	Freshwater marshes and swamps	Jun-Sep	P	Unlikely. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports other depressional wetland land cover suitable for this species. The species is not covered by the SMUD HCP, therefore, modeled habitat for the species is not depicted within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	--	-- /1B.2	Butte, Calaveras, Placer, Sacramento, San Joaquin, Tehama, and Yuba counties.	Vernal pools and seasonal wetlands	Mar-May	P	Moderate. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports grasses and forbs land cover suitable for this species. The species is not covered by the SMUD HCP, however, the SSHCP depicts modeled habitat for the species within the seasonal wetland/seasonal swale and vernal pool habitats in the eastern half of the Project area. There are 2 CNDDDB occurrences within a 5- mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
alkali-sink goldfields <i>Lasthenia chrysantha</i>	--	-- /1B.1	Fresno, Kern, Kings, Lake, Madera, Merced, Placer, Sacramento, San Benito, Solano, Stanislaus, Tulare, and Tuolumne counties.	Alkaline vernal pools	Feb-Apr	P	Unlikely. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover, but soils are not alkaline (NRCS 2026). The species is not covered by the SMUD HCP, therefore, modeled habitat for the species is not depicted within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
legenere <i>Legenere limosa</i>	--	-- /1B.2	Alameda, Calaveras, El Dorado, Lake, Merced, Monterey, Napa, Placer, Sacramento, San Joaquin, San Mateo, Santa Clara, Shasta, Solano, Sonoma, Stanislaus, Tehama, and yuba counties.	Vernal pools	Apr-Jun	P	Moderate. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. The species is not covered by the SMUD HCP, however, the SSHCP depicts modeled habitat for the species within the seasonal wetland/seasonal swale and vernal pool habitats in the eastern two thirds of the Project area. There are 12 CNDDDB occurrences within a 5- mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
Heckard's pepper-grass <i>Lepidium latipes</i> var. <i>heckardii</i>	--	-- /1B.2	Glenn, Merced, Sacramento, Solano, and Yolo counties.	Valley and foothill grasslands with alkaline flats	Mar-May	P	Unlikely. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports grasses and forbs land cover, but soils are not alkaline (NRCS Web Soil Survey 2026). The species is not covered by the SMUD HCP, therefore, modeled habitat for the species is not depicted within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
pincushion navarretia <i>Navarretia myersii</i> ssp. <i>myersii</i>	--	-- /1B.1	Amador, Calaveras, Lake, Madera, Mariposa, Merced, Placer, Sacramento, and San Joaquin counties.	Vernal pools, often with acidic water	Apr-May	P	Low. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. The species is not covered by the SMUD HCP. While the SSHCP depicts modeled habitat for the species within the seasonal wetland/seasonal swale and vernal pool habitats in the eastern half of the Project area, there are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
slender Orcutt grass <i>Orcuttia tenuis</i>	FT	SE/1B .1	Butte, El Dorado, Lake, Lassen, Modoc, Placer, Plumas, Sacramento, Shasta, Siskiyou, and Tehama counties.	Vernal pools, often with gravelly substrate	May-Sep(Oct)	P	Moderate. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. Both the SMUD HCP and SSHCP depict modeled habitat for the species within the seasonal wetland/seasonal swale and vernal pool habitats within the proposed substation and portions of the Project area east of the proposed substation. There are 3 CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE	SE/1B .1	El Dorado, Placer, and Sacramento counties.	Vernal pools	Apr-Jul(Sep)	P	Moderate. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. Both the SMUD HCP and SSHCP depict modeled habitat for the species within the seasonal wetland/seasonal swale and vernal pool habitats within the proposed substation and portions of the Project area east of the proposed substation. There are 11 CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--	-- /1B.2	Butte, Del Norte, El Dorado, Fresno, Kings, Los Angeles, Madera, Marin, Mariposa, Merced, Napa, Orange, Placer, Sacramento, San Bernadino, San Joaquin, San Mateo, Shasta, Solano, Sutter, Tehama, Tulare, Ventura, and Yuba counties.	Shallow, freshwater marshes and swamps	May-Oct- (Nov)	P	Moderate. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports other depressional wetland land cover suitable for this species. The species is not covered by the SMUD HCP, however, the SSHCP depicts modeled habitat for the species within the eastern two thirds of the Project area. There are hydrologically connected CNDDDB occurrences found in the vicinity of the western end of the Project area within Morrison Creek. There are 10 CNDDDB occurrences within a 5- mile radius of the proposed substation site.

Table 1. Special-status Plants with Potential to Occur in the Vicinity of the Projectⁱ

Scientific and Common Name	Legal Status ⁱⁱ		Distribution within California ⁱ	Habitat Association	Identification Period	Habitat Present/Absent ⁱⁱⁱ	Potential to Occur in the Project area ^{iv}
	Federal	State/CNPS					
saline clover <i>Trifolium hydrophilum</i>	--	-- /1B.2	Alameda, Contra Costa, Lake, Marin, Mendocino, Monterey, Napa, Sacramento, San Benito, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, and Yuba counties.	Marshes and swamps, mesic or alkaline valley and foothill grasslands, and vernal pools	Apr-Jun	P	Low. This species was not observed during the 2025 special-status plant surveys of the proposed substation site. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover for this species. The species is not covered by the SMUD HCP, therefore, modeled habitat is not depicted for this species within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

i References for distribution, habitat association, bloom period, and plant records:

Source: Calflora 2026, CNPS 2025a, CNDDDB 2025, USFWS 2025, NRCS 2026.

ii Status explanations:

-- = no listing

Federal

FE = listed as endangered under the federal Endangered Species Act.

FT = listed as threatened under the federal Endangered Species Act.

State

SE = listed as endangered under the California Endangered Species Act.

California Native Plant Society

1B = List 1B species: rare, threatened, or endangered in California and elsewhere.

2B = List 2B species: rare, threatened, or endangered in California and elsewhere.

0.1= Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat).

0.2= Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat).

0.3= Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

iii Habitat Designations:

Absent (A) = No habitat present in the Project area and no further analysis needed.

Present (P) = Habitat is present within the Project area. While seasonally-appropriate botanical surveys were conducted for each species at the proposed substation site, if suitable habitat is present, there is the potential for this species to occur in the future due to new establishment, an absence of blooming during the survey year, or destruction of habitat prior to survey.

iv Rational/ Survey Results:

Definitions for the Potential to Occur:

Unlikely. No suitable habitat present within the Project area.

Low. Minimal or marginal quality habitat in the Project area and no CNDDB occurrences within 5 miles of the proposed substation site.

Moderate. Suitable habitat occurs within the Project area. CNDDB occurrences within 5 miles of the proposed substation site.

High. Project area provides desirable habitat for species and there is a very high probability for its occurrence because there are CNDDB occurrences within 5 miles of the proposed substation site.

Present. Species was observed within the Project area.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/ Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
Invertebrates					
Crotch’s bumble bee <i>Bombus crotchii</i>	--/CE	Historically ranged across southern California, from the coast and coastal ranges, through the Central Valley, and to the adjacent foothills. Has become largely extirpated from the Central Valley.	Open grasslands and scrub habitats. Needs abundant floral resources. Commonly visits the following plant families: Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Hydrophyllaceae, Asclepiadaceae, and Boraginaceae.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. The Project area supports suitable grasses and forbs landcover for this species. There is one CNDDDB occurrence within a 5-mile radius of the proposed substation site. There are also 7 verified observations on iNaturalist within a 5-mile radius of the proposed substation site. The nearest observation is approximately 1 mile to the east of the proposed substation site.
conservancy fairy shrimp <i>Branchinecta conservatio</i>	FE/--	Endemic to the northern two-thirds of the Central Valley. Known populations in Butte, Tehama, Glenn, Yolo, Solano, Stanislaus, Merced, and Ventura counites.	Inhabit astatic, large, and turbid pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	P	Unlikely. There are no CNDDDB occurrences within Sacramento County. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--	Central Valley, Central and South Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County.	Inhabit ephemeral freshwater habitats including a wide range of vernal pools, extremely small or marginal vernal pools, small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	P	High. No surveys were conducted for this species. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. The SMUD HCP models habitat for this species within the seasonal wetland/seasonal swale and vernal pool habitats located within the proposed substation site and in the eastern two thirds of the Project area. There are 32 CNDDB occurrences within a 5-mile radius of the proposed substation site.
monarch butterfly <i>Danaus plexippus</i>	PT/--	Overwinter in central to southern California coastal region. Breed throughout the California, east of overwintering habitat.	California overwintering habitat including eucalyptus, Monterey pines, and Monterey cypresses. Milkweed is the sole food source for larvae.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. Narrowleaf milkweed plants were observed at the proposed substation site during the 2024 and 2025 surveys, which provide suitable breeding habitat for this species. The Project area supports grasses and forbs land cover suitable for this species. There are six verified iNaturalist observations within a 5-mile radius of the proposed substation site. There are no CNDDB records within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT/--	Central Valley and surrounding foothills below 500-foot elevations. Areas above 500 feet with suitable habitat and known valley elderberry longhorn beetle occurrences in that drainage may contain valley elderberry longhorn beetle populations in certain circumstances.	Dependent on elderberry shrubs (host plant) as a food plant; potential habitat is shrubs with stems 1 inch in diameter within Central Valley.	P	Moderate. No elderberry shrubs (<i>Sambucus</i> sp.), the obligate host plant for this species, were observed during the 2024 and 2025 surveys of the proposed substation site. The Project area supports valley foothill riparian land cover suitable for this species along Morrison Creek. The SMUD HCP models habitat for this species within the valley foothill riparian landcover located along Morrison Creek within the Project area. There are 4 CNDDDB occurrences within a 5-mile radius of the proposed substation site.
vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE/--	Central Valley from Shasta County south to Merced County.	Vernal pools, vernal lakes, and other seasonal wetlands. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	P	High. No surveys were conducted for this species. The Project area supports seasonal wetland/seasonal swale and vernal pool land cover suitable for this species. The SMUD HCP models habitat for this species within the seasonal wetland/seasonal swale and vernal pool habitats located within the substation site and in the eastern two thirds of the Project area. There are 52 CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/ Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
Amphibians					
western spadefoot <i>Spea hammondi</i>	PT/SSC	Throughout the Central Valley, and its associated foothills, through the South Coast Ranges into coastal California south of the Transverse mountains and west of the Peninsular mountains, into northwest Baja California.	A primarily terrestrial species, occurring primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Aquatic breeding pools are required for adults to disperse and reproduce, and for eggs and larvae to survive. Vernal pools are considered the primary breeding habitat; however, eggs and larvae have been observed in a variety of permanent and temporary wetlands (i.e. non-flowing rivers, artificial ponds, and tire ruts). (USFWS 2023a)	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. The Project area supports suitable wetland and upland land cover for this species. The wetlands (aquatic resources) provide suitable aquatic habitat for this species, and rodent burrows provide suitable upland refugia habitat. There are six CNDDDB occurrences within a 5-mile radius of the proposed substation site.
California tiger salamander (central California DPS) <i>Ambystoma Californiense pop. 1</i>	FT/ST	Central Valley, including Sierra Nevada foothills up to 1,500 feet and Coastal regions from Butte County south to Santa Barbara County.	Breeds in temporary ponds formed from rain associated with annual grassland. May also occur in hardwood forest, but less common. Adult life is mostly subterranean in burrows, rock cracks and other structures. Seasonal movements associated with breeding are usually up to 1.25 miles.	P	Unlikely. Suitable habitat is present for this species, but the Project area is outside of the known range. The SMUD HCP does not model habitat for this species within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/ Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
Reptiles					
Northwestern pond turtle <i>Actinemys marmorata</i>	PT/SSC	Populations extend throughout the coast and central valley of California. Occurs throughout California, west of the Sierra-Cascade crest. (USFWS 2023b).	Thoroughly aquatic turtles of ponds, lakes, marshes, rivers, streams, irrigation ditches, and permanent pools along intermittent streams with aquatic vegetation, below 6,000 feet in elevation. Prefers exposed areas for basking, with aquatic vegetation, such as algae and other water plants. Requires suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg laying. Females will travel overland up to approximately 325 feet to lay eggs. (USFWS 2023b).	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. The Project area supports suitable aquatic and upland habitat for this species. There are two CNDDDB occurrences within a 5-mile radius of the proposed substation site. There are also 28 verified observations on iNaturalist within a 5-mile radius of the proposed substation site.
giant garter snake <i>Thamnophis gigas</i>	FT/ST	Historically ranged throughout the Sacramento and San Joaquin valleys but now has a reduced range. Appears to have been extirpated from south of Fresno except for west Kern County. (CDFW 2014).	Extremely aquatic snake rarely found away from permanent or semi-permanent water sources like marshes and sloughs. Thought to use burrows and holes for cover during the night. (CDFW 2014).	A	Unlikely. The SMUD HCP does not model habitat for this species within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/ Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
Birds					
tricolored blackbird <i>Agelaius tricolor</i>	--/ST	Colonies patchily distributed throughout the Central Valley, particularly in the Coast Ranges and on the coastal slope. Large colonies have also been observed in the Toledo Pit, Riverside County.	Freshwater marsh, swamp, and wetlands. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	P	Present. Tricolored blackbirds were observed foraging within the Project area during the June 2025 survey and a previous survey conducted in June 2019. There is also marginally suitable nesting habitat for this species, consisting of cattails and young willows, at the edges of the two stock ponds within the proposed substation site. There are numerous CNDDDB occurrences within a 5-mile radius of the proposed substation site.
golden eagle <i>Aquila chrysaetos</i>	--/FP	Concentrated in the Central Valley and coastal valleys, as well as foothills and mountains throughout California.	Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals for prey	P	Low. The Project area contains suitable open grasses and forbs land cover that provides foraging habitat for this species, but there is no suitable nesting habitat. There is one CNDDDB occurrence within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
burrowing owl <i>Athene cunicularia</i>	--/CE	Grasslands in the central valley and eastern California.	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. However, the Project area contains valley grassland habitat with small mammal burrows suitable for overwintering burrowing owls. There are 11 CNDDB occurrences within a 5-mile radius of the proposed substation site.
Swainson's hawk <i>Buteo swainsoni</i>	--/ST	The Central Valley and Great Basin provide the species its core habitat in California. Scattered populations are also known in the Antelope Valley, some inner coastal valleys, portions of the Sierra foothills.	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	P	Present. A pair of Swainson's hawks were observed foraging within the proposed substation site during the April and June 2025 surveys. During the July 2025 survey, one adult hawk and three fledglings were observed within Project area. A stick nest was observed in a large eucalyptus tree in the center of the proposed substation site that is believed to be where the Swainson's hawks nested. Suitable nesting and foraging landcover for this species is present within the Project area. There are 7 CNDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
Northern harrier <i>Circus cyaneus</i>	--/SSC	Occurs year round within breeding range in California. The historic breeding range extended from the Modoc Plateau south to San Diego, mostly east and south of the humid northwest coast and west and north of the arid southeastern deserts (Grinnell 1915).	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienegas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. However, the Project area supports suitable foraging and nesting habitat for this species in the grasses and forbs land cover. There are 12 verified observations on iNaturalist within a 5-mile radius of the proposed substation site. There are no CNDDB occurrences within a 5-mile radius of the proposed substation site.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT/SE	Isolated patches along rivers in the Sacramento Valley.	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	A	Unlikely. The Project area does not contain suitable riparian habitat to support this species. Some valley foothill riparian land cover is found in the Project area where Morrison Creek flows under Jackson Road, but it is not dense enough to suit this species. There is are no CNDDB occurrence within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
white-tailed kite <i>Elanus leucurus</i>	--/FP	Along the western coast and throughout the central valley in California. Most common in coastal and inland areas.	Open areas including marshes, annual grasslands, desert grasslands, and river valleys.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. However, the Project area supports suitable nesting and foraging habitat for this species. There are six CNDDDB occurrences within a 5-mile radius of the proposed substation site. There are also 95 verified observations on iNaturalist within a 5-mile radius of the proposed substation site.
bald eagle <i>Haliaeetus leucocephalus</i>	Delisted/SE	Throughout most of California. Most breeding territories are in northern California, but the eagles also nest in scattered locations in the central and southern Sierra Nevada mountains and foothills, in several locations from the central coast range to inland southern California.	Lower montane coniferous forests and old growth forests near lakes, reservoirs, rivers, and some rangelands and coastal wetlands. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine, most nests within 1-mile of water. Roosts communally in winter.	P	Low. This species was not observed during the 2025 wildlife surveys of the proposed substation site. The Project area contains marginally suitable nesting and foraging habitat for this species in the grasses and forbs land cover. There are 18 verified observations on iNaturalist within a 5-mile radius of the substation site. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
loggerhead shrike <i>Lanius ludovicianus</i>	--/SSC	Resident and winter visitor in lowlands and foothills throughout California; rare on coastal slope north to Mendocino County, occurring only in winter.	Prefers open habitat with scattered vegetation and perches, such as fence posts or utilities. Typically occurs in valley foothill hardwood, hardwood-conifer, riparian, pinyon-juniper, and Joshua tree habitats.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. However, the Project area contains suitable foraging habitat for this species. There is one verified observation on iNaturalist within a 5-mile radius of the substation site. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.
song sparrow (“Modesto” population) <i>Melospiza melodia pop. 1</i>	--/SSC	Restricted to the Sacramento Valley, Sacramento-San Joaquin River Delta, and the northern San Joaquin Valley.	Largely undescribed but found to have an affinity for emergent freshwater marshes and riparian forests along irrigation canals and levees.	P	Low. This species was not observed during the 2025 wildlife surveys of the proposed substation site. However, the Project area contains marginal suitable habitat for this species around the open water features. There are no CNDDDB occurrence within a 5-mile radius of the proposed substation site.
purple martin <i>Progne subis</i>	--/SSC	Found locally in the coast ranges and Sierra Nevada foothills of California. Few satellite populations exist on the valley floor, with one located in Sacramento County, California.	An uncommon resident and migrant in valley foothill, montane hardwood, montane hardwood-conifer, and riparian habitats. (CDFW n.d.).	A	Unlikely. The Project area does not contain suitable nesting or foraging habitat for this species. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
bank swallow <i>Riparia riparia</i>	--/ST	Found along the banks of the Sacramento and Feather rivers in the northern Central Valley and in Monterey, San Mateo, Shasta, Siskiyou, Lassen, Plumas, and Modoc counties.	In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In migration, flocks with other swallows over many open habitats. (CDFW 1999).	A	Unlikely. The Project area does not contain suitable nesting or foraging habitat for this species. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	--/SSC	Breeds throughout much of California except for the coastal region north of the San Francisco Bay, west of the Sacramento Valley, and the southern deserts.	Yellow-headed blackbirds breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. They often forage in fields, typically wintering in large, open agricultural areas.	P	Low. Marginally suitable roosting habitat is present within the sparsely vegetated open water features within the proposed substation site. Foraging habitat is absent from the proposed substation site. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.
Mammals					
pallid bat <i>Antrozous pallidus</i>	--/SSC	Throughout California except for the high Sierra Nevada from Shasta to Kern Counties, and the northwestern corner of the state from Del Norte and western Siskiyou counties to northern Mendocino County.	Grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. Roosts include crevices in rocky outcrops, cliffs, caves, mines, trees, and various human structures such as bridges, barns, and porches.	P	Moderate. Suitable roosting habitat is present within the trees present in the Project area and suitable foraging habitat is found in the grasses and forbs landcover within the Project area. There are no CNDDDB occurrences within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
American badger <i>Taxidea taxus</i>	--/SSC	Found throughout most of the state, except in the northern North Coast area.	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	P	Moderate. This species was not observed during the 2025 wildlife surveys of the proposed substation site. The Project area contains suitable grasses and forbs landcover for this species. There are three CNDDDB occurrences within a 5-mile radius of the proposed substation site.
Fish					
green sturgeon (southern DPS) <i>Acipenser medirostris pop. 1</i>	FT/SSC	This species is found along the west coast of Mexico, the United States, south of the Eel River. They are believed to spawn in the Rogue River, Klamath River Basin, and the Sacramento River. Adults present year-round along the California Coast from Monterey Bay to the Oregon border. Adults/subadults occur in the Humboldt Bay and San Francisco Bay and Delta during the summer and fall. Spawn in the Sacramento, Feather, and possibly the Yuba rivers.	This species spawns in deep pools or "holes" in large, turbulent, freshwater river. Specific spawning habitat preferences are unclear, but eggs likely are broadcast over large cobble substrates but range from clean sand to bedrock substrates as well. Adults live in oceanic waters, bays, and estuaries when not spawning. Adult and subadults habitat include marine and estuarine waters. Spawning habitat includes cool, deep, swift flowing river reaches over gravel and cobble bottoms.	A	Unlikely. The Project area does not contain suitable habitat for this species. Additionally, there are complete barriers to fish passage preventing fish from moving between the Sacramento River and Morrison Creek. There is 1 CNDDDB occurrence within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
steelhead (Central Valley DPS) <i>Oncorhynchus mykiss irideus pop. 11</i>	FT/--	Historically found throughout the Sacramento and San Joaquin rivers and most of their tributaries, now found in less tributaries to the main rivers.	Juveniles and resident adults prefer complex habitat boulders, submerged clay and undercut banks, and large woody debris that provide feeding opportunities, segregation of territories, a refuge from high velocities, and cover from predators. (Caltrout 2024)	A	Unlikely. The Project area does not contain suitable habitat for this species. Additionally, there are complete barriers to fish passage preventing fish from moving between the Sacramento River and Morrison Creek. There is 1 CNDDDB occurrence within a 5-mile radius of the proposed substation site.
Chinook salmon (Central Valley spring-run ESU) <i>Oncorhynchus tshawytscha pop. 11</i>	FT/ST	The Sacramento River up to Keswick Dam including tributaries to the Sacramento River. Known to occur in portions of the Feather River, Yuba River, and American River.	Spawn in rivers or large tributaries in areas with gravel and cobble substrate. Embryos benefit from water temperatures between 5 and 13 degrees Celsius with oxygen levels close to saturation. (LSA Associates, Inc. 2012)	A	Unlikely. The Project area does not contain suitable habitat for this species. Additionally, there are complete barriers to fish passage preventing fish from moving between the Sacramento River and Morrison Creek. There is 1 CNDDDB occurrence within a 5-mile radius of the proposed substation site.
Chinook salmon (Sacramento River winter-run ESU) <i>Oncorhynchus tshawytscha pop. 7</i>	FE/SE	Limited to areas downstream of the Shasta Dam after dam constructions in the 1940s. Currently found in the Sacramento River as far upstream as Keswick Dam.	Spawn in rivers or large tributaries in areas with gravel and cobble substrate. Embryos benefit from water temperatures between 5 and 13 degrees Celsius with oxygen levels close to saturation. (LSA Associates, Inc. 2012)	A	Unlikely. The Project area does not contain suitable habitat for this species. Additionally, there are complete barriers to fish passage preventing fish from moving between the Sacramento River and Morrison Creek. There is 1 CNDDDB occurrence within a 5-mile radius of the proposed substation site.

Table 2. Special-status Wildlife with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ⁱ	Distribution	General Habitat Association	Habitat Present/Absent ⁱⁱ	Potential to Occur in the Project area ⁱⁱⁱ
	Federal/State				
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	--/SSC	Formerly throughout Sacramento-San Joaquin River drainage, CA; now restricted to San Francisco Bay Delta and lower Sacramento River.	Backwaters and pools of rivers; lakes. Tolerant of brackish water.	A	Unlikely. The Project area does not contain suitable habitat for this species. Additionally, there are complete barriers to fish passage preventing fish from moving between the Sacramento River and Morrison Creek. There is 1 CNDDDB occurrence within a 5-mile radius of the proposed substation site.
longfin smelt (San Francisco Bay-Delta DPS) <i>Spirinchus thaleichthys pop. 2</i>	FE/ST	Scattered populations of longfin smelt occur along the Pacific coast of North America from Alaska to the San Francisco Estuary. Historically found in the San Francisco Estuary and the Sacramento/San Joaquin Delta (Bay-Delta), Humboldt Bay, and the estuaries of the Eel River and Klamath River.	Longfin smelt larvae and small juveniles are rarely found in water warmer than 71.6 °F (22 °C). Competent-swimming young juveniles disperse toward more-saline and deeper-water habitats. Mature longfin smelt require cool-to-cold [less than 60.8 °F (16 °C)] freshwater habitats for spawning. Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand but can be found in completely freshwater to almost pure seawater.	A	Unlikely. The Project area does not contain suitable habitat for this species. Additionally, there are complete barriers to fish passage preventing fish from moving between the Sacramento River and Morrison Creek. There is 1 CNDDDB occurrence within a 5-mile radius of the proposed substation site.

ⁱ Status explanations:

Source: USFWS 2025 and CDFW 2025a unless otherwise noted above

-- = no listing

Federal

Delisted	=	Federally delisted.
FE	=	Listed as endangered under the federal Endangered Species Act.
FT	=	Listed as threatened under the federal Endangered Species Act.
PT	=	Proposed for listing as threatened under the federal Endangered Species Act.

State

CE	=	Candidate for listing as Endangered under the California Endangered Species Act.
SE	=	Listed as endangered under the California Endangered Species Act.
ST	=	Listed as threatened under the California Endangered Species Act.
FP	=	Designated as a fully protected species under the California Fish and Game Code.
SSC	=	CDFW species of special concern

ii Habitat Designations:

Absent	=	No habitat present in the Project area and no further analysis needed.
Habitat Present	=	Habitat is or may be present and the species may be present in the Project area; further analysis needed.

iii Rationale

Definitions for the Potential to Occur:

Unlikely. No suitable habitat present within the Project area.

Low. Minimal or marginal quality habitat in the Project area and no CNDDDB occurrences within 5 miles of the proposed substation site.

Moderate. Suitable habitat occurs within the Project area. CNDDDB occurrences within 5 miles of the proposed substation site.

High. Project area provides desirable habitat for species and there is a very high probability for its occurrence because there are CNDDDB occurrences within 5 miles of the proposed substation site.

Present. Species was observed within the Project area