

**BIOLOGICAL RECONNAISSANCE SURVEY**  
**FOR**  
**WOODVILLE PUBLIC UTILITY DISTRICT'S**  
**WATER WELL REPLACEMENT PROJECT**  
**( NEAR WOODVILLE, TULARE COUNTY, CALIFORNIA )**

Prepared for

**Woodville Public Utility District**

P.O. Box 4567  
16716 Avenue 168  
Woodville, CA 93258  
(559) 686-9649

**September 2019**

Prepared by

**HALSTEAD & ASSOCIATES**

**Environmental / Biological Consultants**

296 Burgan Avenue, Clovis, CA 93611  
Office (559) 298-2334; Mobile (559) 970-2875  
Fax (559) 322-0769; HalsteadEnv@aol.com



## **Table of Contents**

	<b><u>Page</u></b>
1. Summary .....	1
2. Background .....	2
3. Project Location .....	2
4. Project Description.....	2
5. Project Site Description .....	2
6. Regulatory Overview .....	3
7. Survey Methods .....	7
8. Wildlife Resources in the Project Area.....	8
9. Plant Resources in the Project Area.....	8
10. Sensitive Species and Habitats in the Project Area .....	9
11. Survey Results .....	11
12. Conclusions.....	12
13. Recommendations.....	12
14. References and Literature Consulted .....	13

## **List of Appendices**

- Appendix A. Project Location Maps.
- Appendix B. Habitat Map.
- Appendix C. Natural Diversity Data Base Search: Woodville Quadrangle Map.
- Appendix D. Natural Diversity Data Base Search: Eight Surrounding Quadrangle Maps.
- Appendix E. Natural Diversity Data Base Map: 5-Mile Radius Map.
- Appendix F. USFWS Species List.
- Appendix G. Special Status Plants in the Vicinity of the Project Site.
- Appendix H. Special Status Wildlife in the Vicinity of the Project Site.
- Appendix I. Photographs of the Project Site.

## **1. Summary**

The project is the installation of a new water well and the connection of new underground water pipelines to existing pipelines for the Woodville Public Utility District (WPUD). Keller/Wegley Engineering are the project engineers and will be managing and permitting the project. The proposed project will provide a new water supply well designed as a municipal drinking water supply source. The well is to be equipped with a water lubricated pump, electric motor and chlorine disinfection system, and a hydropneumatic tank for pressure control purposes. On-site improvements will include fencing and site surfacing. The well is proposed to be furnished with a standby generator to address power service during service utility outage conditions. The new underground water pipeline will be constructed to connect the proposed well to the existing water distribution system. The well is to be constructed on existing District owned land. Easements will be obtained for the off-site improvements.

A biological reconnaissance field survey was conducted on September 10, 2019 to determine if sensitive species, habitats, or other environmental issues occur on the site. The survey included a field visit and search of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDB). The proposed well site is a previously disced fallow field adjacent to several residences within the community of Woodville, California (Appendix A). The pipeline installation area adjacent to the well site is a fallow field that was previously disced. Surrounding lands in the area include actively leveled, irrigated, and farmed agricultural lands, Woodville Elementary School, and the community of Woodville, CA (Appendix B).

No sensitive species were observed on or adjacent to the project site during our survey. Also, no sensitive species tracks, trails, diggings, and scat (feces), or prey remains were observed on or near the project site during our survey. Habitats for sensitive species (e.g. vernal pools, ponds, creeks, rivers, marshes, swamps, sloughs, sandy washes, tidal estuaries, cliffs, caves, riparian, meadows, woodlands, savannahs, playas, alkaline soils, adobe-heavy clay soils, alkali sink habitat, chenopod scrub habitat, juniper-sage flats, grasslands with rolling hills) are not present on or adjacent to the project site, and thus these species do not occur on or adjacent to the project site. Sensitive habitats such as riparian, creeks, streams, or wetlands do not occur on or adjacent to the project site. Though no sensitive species were observed, a pre-construction survey shall be conducted prior to any ground disturbing activities to ensure that no sensitive species, such as ground nesting birds, have moved onto the site and could be potentially impacted by construction activities (see Recommendations section).

Upon completing the Initial Study, Mitigated Negative Declaration, and Environmental Assessment for the project, the "No Effect" boxes can be checked for sensitive species as the recommended additional biological surveys/studies and/or preventive avoidance measures will alleviate potential impacts to a less than significant level. The "no impact" boxes can be checked for other biological resources as sensitive habitats including riparian and wetlands do not occur on the project site, other resources will not be impacted, and none will be negatively affected by the project. Also, the project will not interfere with animals movements or migrations, impede the use of native wildlife nursery sites, conflict with local ordinances or policies protecting biological resources, conflict with habitat or natural community conservation plans, or affect other Significance Criteria in Section 6.

## **2. Background**

The project is the installation of a new water well and the connection of new underground water pipelines to existing pipelines for the Woodville Public Utility District (WPUD). Keller/Wegley Engineering are the project engineers and will be managing and permitting the project.

Halstead & Associates, Environmental/Biological Consultants were hired to conduct a biological reconnaissance survey and prepare a report on our findings. The reconnaissance information will be used for planning purposes and to guide future environmental work and permitting of the project. The purpose of the reconnaissance survey is to determine if sensitive wildlife, plants, or habitats occur on the project site, and could be impacted. The information will also be used in complying with the California Environmental Quality Act, and in obtaining grants to fund the project.

## **3. Project Location**

The project site is located approximately ½ mile southwest of the community of Woodville, Tulare County, California (Appendix A). The site occurs north of Avenue 160, east of Road 164, south of Avenue 168, and west of Road 168. Specifically, the project site occurs in Section 19, Township 21 south, Range 26 east, M. D. B. & M. of the Woodville 7.5 minute quadrangle map (Appendix A).

## **4. Project Description**

The project is the installation of a new water well, the connection of new underground water pipelines to existing pipelines for the Woodville Public Utility District (WPUD). Keller/Wegley Engineering are the project engineers and will be managing and permitting the project. The proposed project will provide a new water supply well designed as a municipal drinking water supply source. The well is to be equipped with a water lubricated pump, electric motor and chlorine disinfection system, and a hydropneumatic tank installed for pressure control purposes. On-site improvements will include fencing and site surfacing. The well is proposed to be furnished with a standby generator to address power service during service utility outage conditions. The new underground water pipeline will be constructed to connect the proposed well to the existing water distribution system. The well is to be constructed on existing District owned land. Easements will be obtained for the off-site improvements.

## **5. Project Site Description**

The proposed well site and water pipeline installation areas adjacent to the well site are comprised of a fallow field that was previously disced (Appendix I) and maintained paved and dirt road right-of-ways. Surrounding land in the area includes actively leveled, irrigated, and farmed agricultural lands, Woodville Elementary School, and the community of Woodville, California (Appendix B).



## **6. Regulatory Overview**

To ensure the long-term protection of the environment and natural resources, laws and regulations have been implemented through multiple environmental protection Acts, which include:

Section 404 of the Clean Water Act (33 U.S.C. 1251-1376);  
Section 10 of the Rivers and Harbors Act (33 U.S.C. 401 et seq.);  
Executive Order 11990, Protection of Wetlands (May 24, 1977);  
National Environmental Policy Act (42 U.S.C. 4321 et seq.);  
Federal Endangered Species Act (16 U.S.C. 1531-1543);  
Fish and Wildlife Coordination Act (16 U.S.C. 661-666);  
California Environmental Quality Act (P.R.C. 21000 et seq.);  
California Endangered Species Act (California Fish and Wildlife Code 2050 et seq.);  
Native Plant Protection Act (California Fish and Wildlife Code 1900-1913);  
Fish and Wildlife Protection and Conservation (California Fish and Wildlife Code);  
Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711); and  
Bald and Golden Eagle Protection Act (16 USC 668).  
Magnusen -Stevens Fishery Conservation Management Act.

Implementation and regulation of these Acts has been delegated to several state and federal agencies. The following section briefly describes the regulation and which, if any, agency governs.

### **Wetlands and Other Waters of the United States**

#### **United States Army Corps of Engineers**

Waters of the United States, including wetlands and creek channels are subject to Federal and State agency regulations in the State of California. The U. S. Army Corps of Engineers (Corps) has jurisdiction over Waters of the United States under Section 404 of the Clean Water Act. Waters of the United States may include interstate lakes, rivers, streams, mudflats, natural ponds, tributaries to Waters of the United States, and adjacent wetlands. Wetlands under Corps' jurisdiction are determined using technical criteria for hydrology, soil, and vegetation described in the Corps' Wetland Delineation Manual (1987).

Areas not considered to be jurisdictional waters include non-tidal drainage and irrigation canals excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water filled depressions (33 CFR, Part 328).

Lands including pasture as defined by the U. S. Natural Resource Conservation Service (NRCS) are subject to regulation under Section 404 if the land use changes from agricultural to some other form, such as commercial or residential. Although regulatory authority under Section 404 rests with the Corps, in the past responsibility for determination of jurisdictional status on agricultural land was shared with NRCS throughout the United States. However, in 2000, the NRCS withdrew from its participation in delineating agricultural wetlands to be converted to some other form of land use than agricultural.

Construction activities within jurisdictional waters are regulated by the Corps. Placement of fill into jurisdictional waters requires issuance of a permit by the Corps as well as state water quality certification pursuant to Section 401 of the Clean Water Act. The Regional Water Quality Control

Board is the state agency charged with implementing water quality certification in California.

California Department of Fish and Wildlife Streambed Alteration Agreement

Any project-related activity with the potential to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake designated by the CDFW, or use material from the streambed requires that prior notification be provided to the CDFW and may require issuance of a Streambed Alteration Agreement pursuant to Sections 1600-1616 of the Fish and Wildlife Code.

**Special-Status Species**

Special-status plant and wildlife species are species that have been afforded special recognition and protection by federal, state, or local resource conservation agencies and organizations. These species are generally considered rare, threatened, or endangered due to declining or limited populations. Special-status species include:

Plants and animals that are legally protected or proposed for protection under the California Endangered Species Act (CESA) or Federal Endangered Species Act (FESA);

Plants and animals defined as endangered or rare under the California Environmental Quality Act (CEQA) (Section 15380);

Animals designated as species of special concern by the U. S. Fish and Wildlife Service (USFWS) or CDFW;

Animals listed as “fully protected” in the Fish and Wildlife Code of California (Sections 3511, 4700, 5050, and 5515); and

Plants listed in the California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Vascular Plants of California.

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (Act) recognized that many species of fish, wildlife, and plants are in danger of or threatened with extinction and established a national policy that all federal agencies should work toward conservation of these species. The Secretary of the Interior and the Secretary of Commerce are designated in the Act as responsible for identifying endangered and threatened species and their critical habitats, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal actions on endangered species and specifies civil and criminal penalties for unlawful activities.

Biological assessments are required under Section 7 of the Act if listed species or critical habitat may be present in the area affected by any major construction activity conducted by, or subject to issuance of a permit from, a federal agency as defined in Part 404.02. Under section 7(a)(3) of the Act, every federal agency is required to consult with the USFWS or U. S. National Marine Fisheries Service on a proposed action if the agency determines that its proposed action may affect an endangered or threatened species.

Section 9 of the Endangered Species Act prohibits the “take” of any fish or wildlife species listed under the FESA as endangered or threatened. Take, as defined by the FESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such action.” However, Section 10 allows for the “incidental take” of endangered and threatened species of wildlife by non-Federal entities. Incidental take is defined by the FESA as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” Section 10(a)(2)(A) requires an applicant for an incidental take permit to submit a “conservation plan” that specifies, among other things, the impacts that are likely to result from the taking and the measures the permit applicant will undertake to minimize and mitigate such impacts. Section 10(a)(2)(B) provides statutory criteria that must be satisfied before an incidental take permit can be issued.

#### Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

#### Bald and Golden Eagle Protection Act

Specifically protects Bald and Golden Eagles from harm or trade.

#### California Endangered Species Act

The California Endangered Species Act (Fish and Wildlife Code Sections 2050-2098) established a State policy to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat. The Fish and Wildlife Commission is charged with establishing a list of endangered and threatened species. State agencies must consult with the Department of Fish and Wildlife to determine if a proposed project is likely to jeopardize the continued existence of any endangered or threatened species.

Section 2081 of the Fish and Wildlife Code allows the “take” of a species listed as threatened or endangered by the California Endangered Species Act. Take is defined as any act that involves direct mortality or other actions that may result in adverse impacts when attempting to take individuals of a listed species. Under Section 2081, the state Department of Fish and Wildlife may issue a permit to authorize take for scientific, educational or management purposes, or take that is incidental to otherwise lawful activities.

#### California Fish and Wildlife Code Native Plant Protection Policy

The goals described in Chapter 10 of the California Native Plant Protection Policy are as follows:

The intent of the Legislature and the purpose of this chapter is to preserve, protect, and enhance endangered or rare plants of this state (Section 1900). For purposes of this Chapter, a “native plant” means a plant that grows in a wild uncultivated state that is normally found native to the plant life of this state (Section 1901).

The commission may adopt regulations governing the taking, possession, propagation, transportation, exportation, importation, or sale of any endangered or rare native plants. Such regulations may include, but shall not be limited to, requirements for persons who perform

any of the foregoing activities to maintain written records and to obtain permits, which may be issued by the department (Section 1907).

No person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the commission determines to be an endangered native plant or a rare native plant, except as otherwise provided in this chapter (Section 1908).

All state departments and agencies shall, in consultation with the department, utilize their authority in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered or rare native plants. Such programs include, but are not limited to, the identification, delineation, and protection of habitat critical to the continued survival of endangered or rare native plants (Section 1911).

#### California Fish and Wildlife Code

Section 3503. It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

Section 3503.5. Protects all birds-of-prey and their eggs and nests.

Section 3513. Makes it unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

#### Other Special-Status Species Classifications

Impacts on federal and California species of special concern (FSC and CSC, respectively), and species included on CNPS lists shall be considered significant if one of the following would result: a) direct mortality; b) permanent loss of existing habitat; c) temporary loss of habitat that may result in increased mortality or lowered reproductive success; or d) avoidance of biologically important habitat for substantial periods that could increase mortality or cause lowered reproductive success (Section 15065, CEQA Guidelines and CDFW Code Sections 1900-1913).

#### Title 14, California Code of Regulations, Sections 670.2 and 670.5

Lists animals designated as threatened or endangered in California. California Species of Concern (CSC) is a category designated by CDFW for species considered to be indicators of regional habitat changes, or candidate species for future state listing. CSC do not have special legal status, but are used by CDFW as a management tool when considering the future use of any land parcel.

#### Tulare County General Plan

Tulare County contains important wetland, riverine, and wildlife habitats. These areas support many specialized plant and animal species. Policies in the general plan seeks to protect natural areas and to preserve the diversity of habitat in the county. Open space and conservation elements of the plan contains policies that pertain to the preservation and protection of biological resources.

### **Significance Criteria**

The CEQA Guidelines in its Appendix G provides guidance for assessing the significance of potential environmental impacts. Relative to biological resources, a project will normally have a significant effect on the environment if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- Reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community.
- Result in the degradation of water quality in season creeks, reservoirs, and downstream waters.
- Disturb any active raptor or bird nest during project implementation or construction activities.

### **7. Survey Methods**

A search of the CDFW's California Natural Diversity Data Base (CNDDB) for the Woodville 7.5 minute quadrangle map and the 8 surrounding quadrangle maps (Tulare, Cairns Corner, Lindsay, Tipton, Porterville, Pixley, Sausalito School, and Ducor) was conducted to review records of sensitive species and habitats in the project area. These sensitive species and habitat records are listed in Appendices C and D, and in report Section 10. A list of potential sensitive wildlife, plants, and habitats was developed and used to focus the biological and habitat survey. A Species List was obtained from the U. S. Fish and Wildlife Service (USFWS) for the project site (Appendix F). Other sensitive species known to occur in the general region of the project were reviewed, searched for, and considered in the field survey. These species are listed in Appendices G and H. Aerial photographs

were examined to establish habitats on, immediately adjacent to, and near the proposed project (Appendix B).

A biological reconnaissance field survey was conducted on September 10, 2019 to determine if sensitive species, habitats, or any other environmental issues occur on or near the project site. During our survey we drove and walked around the entire project site. The survey included a search for any evidence of suitable habitat for sensitive species, species occurrence such as burrows, tracks, trails, prey remains, diggings, and scat (feces), prey remains, nests, sensitive plants, and sensitive habitats such as creeks, streams, and wetlands.

A visual survey was conducted with high-powered binoculars. The Burrowing Owl survey protocol of the California Department of Fish and Wildlife (2012) and the Burrowing Owl Consortium (1993) were consulted and reviewed during our survey. The protocol survey methodologies of the U. S. Fish and Wildlife Service (2011) and California Department of Fish and Wildlife (1990) for the San Joaquin Kit Fox were consulted and reviewed during our survey. Also, the Swainson's Hawk survey protocol of the California Department of Fish and Wildlife (1994) and the Swainson's Hawk Technical Advisory Committee (2000) were consulted and reviewed during our survey. All trees within a 0.5 mile radius of the project site were surveyed for bird and raptor nests.

## **8. Wildlife Resources in the Project Area**

Wildlife species which inhabit the project area are typical of the valley floor agriculture lands including orchards, row crops, irrigation canals, and farm residences. Coyote, Gray Fox, Domestic Dog and Cat, Striped Skunk, and Virginia Opossum are the predominant large mammals in the area. Game species such as California Quail and Mourning Dove along with other species like the California Ground Squirrel, Audubon Cottontail, Pocket Gopher, Red-winged Blackbird, Brewers Blackbird, European Starling, Scrub Jay, American Crow, Northern Mockingbird, Western Kingbird, American Kestrel, Red-tailed Hawk, American Robin, and House Finch occur in the area. A variety of other birds use the area during the migration seasons. Common reptiles include the Western Fence Lizard, Side Blotch Lizard, Alligator Lizard, and Gopher Snake. Amphibians along irrigation canals include Tree Frog, Western Toad, and Bullfrog.

Habitats for sensitive species (e.g. vernal pools, ponds, creeks, rivers, marshes, swamps, sloughs, sandy washes, tidal estuaries, cliffs, caves, riparian, meadows, woodlands, savannahs, playas, alkali sink habitat, chenopod scrub habitat, juniper-sage flats, or grasslands with rolling hills) were not observed on or adjacent to the project site, and thus these sensitive species do not occur on or adjacent to the project site.

## **9. Plant Resources in the Project Area**

The plant species which inhabit the project area are typical of the valley floor agricultural lands. Lands surrounding the project site and in the general vicinity are leveled, irrigated, and actively farmed agricultural lands including row crops, vineyards, orchards, and disced fields. A variety of ornamental plants occur at rural residences, Woodville Elementary School, and the urban community of Woodville (Appendices B and I). The project site's fallow field has various weedy

and annual species such as Russian Thistle, Prickly Lettuce, Johnsongrass, Lambsquarters, Jimsonweed, Annual Sunflower, Nutsedge, Puncturevine, and Bermudagrass.

Habitats or microhabitats for sensitive plant species (e.g. vernal pools, ponds, creeks, rivers, marshes, swamps, sloughs, sandy washes, tidal estuaries, riparian, meadows, woodlands, savannahs, playas, alkali sink habitat, chenopod scrub habitat, juniper-sage flats, or grasslands with rolling hills) are not present on the project site or adjacent lands.

# **10. Sensitive Species and Habitats in the Project Area**

The CDFW's Natural Diversity Data Base (CNDDDB) denotes several sensitive species and habitats from the Woodville, and eight surrounding quadrangle maps (Appendices C and D). These species are listed below and information about them is presented in Appendices C and D. Detailed information for some of these species occurs in USFWS (1998) Recovery Plan for Upland Species of the San Joaquin Valley, California. Also included on the list is the Bald Eagle, as it is a wide ranging species of concern throughout California. Species on the USFWS's Species List and other species known to inhabit the general region of the project were also considered and searched for during the survey (Appendices F thru H). For each of these sensitive species, their legal status, habitat association, and determination of affects by the project are listed for plants and for wildlife in Appendices G and H, respectively.

Sensitive species and habitats from the Woodville quadrangle map are listed below and a map of their occurrence locale is presented in Appendix E.

Table A. Sensitive Species and Habitats on the Woodville Quadrangle Map.				
Name	Scientific Name	Listing		
		Federal	State	Other
Mammals				
Tipton Kangaroo Rat	<i>Dipodomys nitratooides nitratooides</i>	FE	SE	--
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	FE	ST	--
Birds				
Tricolored Blackbird	<i>Agelaius tricolor</i>	--	CE	SSC

## **Federal status:**

FE Listed as endangered under the Federal Endangered Species Act

## **State Status:**

SE Listed as endangered under the California Endangered Species Act

ST Listed as threatened under the California Endangered Species Act

CE Candidate Endangered

SSC State Species of Special Concern

Other sensitive species and habitats from the eight surrounding quadrangle maps, even though they may occur many miles from the project site, in different habitats, and at different elevations also include:

Table B. Sensitive Species and Habitats on the 8 Surrounding Quadrangle Maps.					
Name	Scientific Name	Listing			
		Federal	State	Other	
Mammals					
American Badger	<i>Taxidea taxus</i>	--	--	SSC	
Hoary Bat	<i>Lasiurus cinereus</i>	--	--	--	
San Joaquin Pocket Mouse	<i>Perognathus inornatus</i>	--	--	--	
Birds					
American Peregrine Falcon	<i>Falco peregrinus</i>	FD	SD	--	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FD	SE	--	
Burrowing Owl	<i>Athene cunicularia</i>	--	--	SSC	
Swainson’s Hawk	<i>Buteo swainsoni</i>	--	ST	--	
Reptiles					
Bakersfield Legless Lizard	<i>Anniella grinnelli</i>	--	--	SSC	
Blunt-nosed Leopard Lizard	<i>Gambelia sila</i>	FE	SE	FP	
Coast Horned Lizard	<i>Phrynosoma blainvillii</i>	--	--	SSC	
Northern California Legless Lizard	<i>Anniella pulchra</i>	--	--	SSC	
San Joaquin Coachwhip	<i>Masticophis flagellum ruddocki</i>	--	--	SSC	
Amphibians					
Western Spadefoot	<i>Spea hammondii</i>	--	--	SSC	
Insects					
An Andrenid Bee	<i>Andrena macswaini</i>	--	--	--	
Crotch Bumble Bee	<i>Bombus crotchii</i>	--	--	--	
Hopping’s Blister Beetle	<i>Lytta hoppingi</i>	--	--	--	
Molestan Blister Beetle	<i>Lytta molesta</i>	--	--	--	
Morrison’s Blister Beetle	<i>Lytta morrisoni</i>	--	--	--	
San Joaquin Tiger Beetle	<i>Cicindela tranquebarica ssp.</i>	--	--	--	
Crustaceans					
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	FT	--	--	
Plants					
Brittlescale	<i>Atriplex depressa</i>	--	--	1B.2	
Calico Monkeyflower	<i>Diplacus pictus</i>	--	--	1B.2	
California Alkali Grass	<i>Puccinellia simplex</i>	--	--	1B.2	
California Jewelflower	<i>Caulanthus californicus</i>	FE	SE	1B.1	
Earlilmart Orache	<i>Atriplex cordulata var. erecticaulis</i>	--	--	1B.2	



Table B. Sensitive Species and Habitats on the 8 Surrounding Quadrangle Maps.				
Name	Scientific Name	Federal	State	Other
Kern Mallow	<i>Eremalche parryi</i> spp. <i>kemensis</i>	FE	--	1B.2
Lesser Saltscale	<i>Atriplex miniscula</i>	--	--	1B.1
Lost Hills Crownscale	<i>Atriplex coronate</i> var. <i>vallicola</i>	--	--	1B.2
Recurved Larkspur	<i>Delphinium recurvatum</i>	--	--	1B.2
Subtle Orache	<i>Atriplex Subtilis</i>	--	--	1B.2
San Joaquin Adobe Sunburst	<i>Pseudobahia peirsonii</i>	FT	SE	1B.1
San Joaquin Wolythreads	<i>Monolopia congdonii</i>	FE	--	1B.2
Springville Clarkia	<i>Clarkia springvillensis</i>	FT	FE	1B.2
Striped Adobe-lily	<i>Fritillaria striata</i>	--	ST	1B.1
Vernal Pool Smallscale	<i>Atriplex persistens</i>	--	--	1B.2
<b>Habitats</b>				
Northern Claypan Vernal Pool	--	--	--	--

**Federal status:**

FE	Listed as endangered under the Federal Endangered Species Act
FT	Listed as threatened under the Federal Endangered Species Act
FP	Federally Protected Species
FD	Federally Delisted

**State Status:**

SE	Listed as endangered under the California Endangered Species Act
ST	Listed as threatened under the California Endangered Species Act
SD	State Delisted

**CDFW, CNDDDB, or CNPS Listing:**

SSC	Species of concern as identified by the California Department of Fish and Wildlife (CDFW)
1B	Plant species that are rare, threatened, or endangered in California and elsewhere (CNPS - California Native Plant Society)
Threat Extension Codes: .1 – Seriously endangered, .2 – Fairly endangered, .3 - Not very endangered.	

## 11. Survey Results

The proposed well site and water pipeline installation areas adjacent to the well site are comprised of a fallow field that was previously disced (Appendix I) and maintained paved and dirt road right-of-ways. Surrounding land in the area includes actively leveled, irrigated, and farmed agricultural lands, Woodville Elementary School, and the community of Woodville, California (Appendix B).

The CDFW's CNDDDB and the USFWS's Species List show that a variety of sensitive wildlife, plants, and habitats occur in the general region of the project - see Section 10 and Appendices C thru F. Wildlife and plants which were observed on the project site and in the general vicinity are typical of the valley floor agricultural lands. We found nothing to indicate that there was any significant animal movements or dispersal patterns on or through the project site. No sensitive habitats such as riparian, creeks, streams, or wetlands occur on the site. Habitats for sensitive species (e.g. vernal pools, ponds, creeks, rivers, marshes, swamps, sloughs, sandy washes, tidal estuaries,

cliffs, caves, riparian, meadows, woodlands, savannahs, playas, alkali sink habitat, chenopod scrub habitat, juniper-sage flats, or grasslands with rolling hills) were not observed on or adjacent to the project site, and thus these sensitive species do not occur on or adjacent to the project site.

No sensitive species were observed on or adjacent to the project site during our survey. Though no sensitive species were observed, a pre-construction survey shall be conducted prior to any ground disturbing activities to ensure that no sensitive species, such as ground nesting birds, have moved onto the site and could be potentially impacted by construction activities (see Recommendations section).

## **12. Conclusions**

The proposed well site and water pipeline installation areas adjacent to the well site are comprised of a fallow field that was previously disced (Appendix I) and maintained paved and dirt road right-of-ways. Surrounding land in the area includes actively leveled, irrigated, and farmed agricultural lands, Woodville Elementary School, and the community of Woodville, California (Appendix B).

No sensitive species were observed on or adjacent to the project site during our survey. Also, no sensitive species tracks, trails, diggings, and scat (feces), or prey remains were observed on or near the project site during our survey. Habitats for sensitive species (e.g. vernal pools, ponds, creeks, rivers, marshes, swamps, sloughs, sandy washes, tidal estuaries, cliffs, caves, riparian, meadows, woodlands, savannahs, playas, alkaline soils, adobe-heavy clay soils, alkali sink habitat, chenopod scrub habitat, juniper-sage flats, grasslands with rolling hills) are not present on or adjacent to the project site, and thus these species do not occur on or adjacent to the project site. Sensitive habitats such as riparian, creeks, streams, or wetlands do not occur on or adjacent to the project site.

Upon completing the Initial Study, Mitigated Negative Declaration, and Environmental Assessment for the project, the “No Effect” boxes can be checked for sensitive species as the additional biological surveys/studies and/or preventive avoidance measures will alleviate potential impacts to a less than significant level. The “no impact” boxes can be checked for other biological resources as sensitive habitats including riparian and wetlands do not occur on the project site, other resources will not be impacted, and none will be negatively affected by the project. Also, the project will not interfere with animals movements or migrations, impede the use of native wildlife nursery sites, conflict with local ordinances or policies protecting biological resources, conflict with habitat or natural community conservation plans, or affect other Significance Criteria in Section 6.

## **13. Recommendations**

Information from this report should be used in designing and planning the project and preparing the environmental documents to comply with CEQA requirements for the project. The following preventive avoidance measures are recommended and shall be incorporated into the project to avoid potentially significant impacts to the biological resources noted below.

## Nesting Birds and their Nests

Nesting birds, their eggs, and their nests could potentially inhabit fields, field edges, and adjacent lands, and could be negatively impacted by construction and operation of the project unless preventive avoidance measures are incorporated into the project. No nesting birds or nests were observed on the project site during our reconnaissance survey; however, the survey was conducted outside the nesting period.

To protect and preserve nesting birds and their nests, to avoid any impacts to them and their nests, and to meet CDFW and USFWS requirements, the following preventive measures shall be incorporated into the project.

- NB #1. Prior to any construction activities on the project site in the February thru August period, a preconstruction (one-day) survey shall be conducted by a qualified biologist for nesting birds on the project site. Results of the preconstruction survey shall be prepared in a letter and given to WPUD and Keller/Wegley Engineering prior to any construction activities.
- NB #2. If any active nests are observed, the nests shall be designated as an Environmentally Sensitive Area and protected (while occupied) during the construction activities. The CDFW shall be contacted, consulted, and avoidance measures, specific to each incident, shall be developed in cooperation with the project biologist.

## **14. References and Literature Consulted**

- Arnold, R.A., J.A. Halstead, D. Kavanaugh, & K.H. Osborne. 1994. Valley Elderberry Longhorn Beetle. Pages 414-415. In Thelander, C.G., and M. Crabtree, editors. Life on the edge: a guide to California's endangered natural resources: wildlife. BioSystems Books, Santa Cruz, California. 550 pp.
- Bass, R.E., A.I. Herson, & K.M. Bogdan. 2004. CEQA Deskbook. Solano Press Books, Point Arena, California.
- Barr, C.B. 1991. Distribution, status, and habitat of the valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (Insecta: Coleoptera: Cerambycidae). Sacramento, California. Prepared for U. S. Fish and Wildlife Service, Sacramento, California.
- Beedy, E.C., S.D. Sanders, & D. Bloom. 1991. Breeding status, distribution, and habitat associations of the tricolored blackbird (*Agelaius tricolor*), 1850-1989. Prepared for the U. S. Fish and Wildlife Service, Sacramento, California. 202 pp.
- Bloom, P.H. 1980. The Status of the Swainson's Hawk in California, 1979. Federal Aid in Wildlife Restoration, Project W-54-R-12, Final Report 11-8-0. California Department of Fish and Wildlife, Wildlife Management Division, Nongame Bird and Mammal Section. Sacramento, California. 24 pp.

- Brylski, P. & A.I. Roest. 1994. Fresno kangaroo rat. Pages 76-77. In Thelander, C.G., and M. Crabtree, editors. *Life on the edge: a guide to California's endangered natural resources: wildlife*. BioSystems Books, Santa Cruz, California. 550 pp.
- Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. Techn. Rep. Burrowing Owl Consortium, Alviso, California.
- Burt, W. H. & R. P. Grossenheider. 1976. *A Field Guide to the Mammals*. Houghton Mifflin Co., Boston, Massachusetts. 289 pp.
- California Department of Fish and Wildlife. 1980. *At the Crossroads 1980: A report on California's endangered and rare fish and wildlife*. Sacramento, California. 147 pp.
- California Department of Fish and Wildlife. 1990. Survey Methodologies for the San Joaquin Kit Fox, Blunt-nosed Leopard Lizard, San Joaquin Antelope Squirrel, Tipton Kangaroo Rat, Giant Kangaroo Rat. Fresno, California.
- California Department of Fish and Wildlife. 1990. 1989 Annual report on the status of California's state listed threatened and endangered plants and animals. Sacramento, California. 188 pp.
- California Department of Fish and Wildlife. 1992. 1991 Annual report on the status of California state listed threatened and endangered animals and plants. Sacramento, California.
- California Department of Fish and Wildlife. 1994. Staff Report Regarding Mitigation for Swainson's Hawk (*Buteo swainsoni*) in the Central Valley of California. Fresno, California.
- California Department of Fish and Wildlife (McCauley, J. and J. R. Single). 1995. *Riparian and Wetland Habitats: Descriptions, Human Impacts, and Recommended Setbacks for Impact Management*. Draft Regional Report, Region 4, Fresno, California.
- California Department of Fish and Wildlife. 2006. California Wildlife Habitat Relationships System, ver. 7.0. Wildlife and Habitat Data Analysis Branch, Sacramento, California.
- California Department of Fish and Wildlife. 2005. Special Animals List. Wildlife and Habitat Data Analysis Branch, Sacramento, California.
- California Department of Fish and Wildlife. 2005. Special Vascular Plants, Bryophytes, and Lichens List. Wildlife and Habitat Data Analysis Branch, Sacramento, California.
- California Department of Fish and Wildlife. 2005. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Wildlife and Habitat Data Analysis Branch, Sacramento, California.
- California Native Plant Society. 2006. *Inventory of Rare and Endangered Vascular Plants of California*. Electronic Data Base. Sacramento, California.

- California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation. Sacramento, California.
- California Natural Diversity Data Base. 2018. Rarefind Program: Computer data base of sensitive species. California Department of Fish and Wildlife, Natural Heritage Division, Sacramento, California.
- California Office of Planning and Research. 1996. CEQA: California Environmental Quality Act Statutes and Guidelines. Sacramento, California.
- Chapman, J.A. & G.A. Feldhamer. 1982. Wild Mammals of North America: Biology, Management, Economics. The Johns Hopkins Univ. Press, London, England. 1147 pp.
- Crampton, B. 1959. The grass genera *Orcuttia* and *Neostapfia*: A study in habitat and morphological specialization. *Madrono* 15: 97-100.
- Crampton, B. 1977. California Native Plant Society rare plant status report for *Orcuttia californica* var. *inequalis*. California Native Plant Society. Sacramento, California.
- Detrich, P.J. 1985. The status and distribution of the Bald Eagle in California. M.S. Thesis, California State University, Chico. 101 pp.
- Ehrlich, P.R., D.S. Dobkin & D. Wheye. 1988. The birder's handbook: a field guide to the Natural history of North American birds. Simon and Schuster, New York, New York.
- Eng, L.L., D. Belk, & C.H. Eriksen. 1990. California Anostraca: Distribution, habitat, and status. *Journal of Crustacean Biology* 10:247-277.
- Eriksen, C.H. & D. Belk. 1999. Fairy shrimps of California's puddles, pools, and playas. Mad River Press, Inc. Eureka, California.
- Estep, J.A. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California. California Department of Fish & Wildlife, Sacramento, California. 70 pp.
- Faber, P.M. & R.F. Holland. 1988. Common Riparian Plants of California. Pickleweed Press, Mill Valley, California.
- Federal Interagency Committee for Wetlands Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U. S. Government Printing Office, Washington, D.C.
- Fisher, R., G. Hansen, R.W. Hansen, & G. Stewart. 1994. Giant Garter Snake. Pages 284-287. In Thelander, C.G., and M. Crabtree, editors. Life on the edge: a guide to California's endangered natural resources: wildlife. BioSystems Books, Santa Cruz, California. 550 pp.
- Fresno County. 2000. Fresno County General Plan. Fresno County Planning Department, Fresno, California.

- Halstead, J.A. & J.A. Oldham. 1990. A revision of the genus *Desmocerus*, with special emphasis on the threatened Valley Elderberry Longhorn Beetle. Research Rpt. No. 90-002, Kings River Conservation District, Fresno, California.
- Halstead, J.A. & J.A. Oldham. 2000. New distributional records for the elderberry longhorn beetle *Desmocerus californicus* Horn (Coleoptera: Cerambycidae). *Pan-Pacific Entomol.* 76: 74-76.
- Halstead, J.A. & R.D. Haines. 1991. New distributional records for some candidate species of *Lytta* blister beetles in California. *Pan-Pacific Entomol.* 68: 68-69.
- Hansen, R. W. 1980. Western aquatic garter snakes in central California: an ecological and evolutionary perspective. Masters thesis. California State University Fresno. Fresno, California.
- Hickman, J.C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley and Los Angeles, California.
- Holland, D.C. 1991. A synopsis of the ecology and status of the Western Pond Turtle (*Clemmys marorata*) in 1991. U. S. Fish and Wildlife Service, San Simeon, California.
- Holland, R.F. 1986. Descriptions of the Terrestrial Natural Communities of California. Special Publ. California Department of Fish and Wildlife, Sacramento, California.
- Huntington, G.L. 1971. Soil survey of Eastern Fresno County. U. S Dept. of Agriculture, Natural Resources Conservation Services, Sacramento, California.
- Ingles, L.G. 1965. *Mammals of the Pacific States: California, Oregon, and Washington*. Stanford Univ. Press, Stanford, California. 506 pp.
- Jennings, M.R. & M.P. Hayes. 1994. Amphibians and reptile species of special concern in California. California Department of Fish and Wildlife. Rancho Cordova, California.
- Linsley, E.G. & J.A. Chemsak. 1972. Cerambycidae of North America, Part VI, No. 1. Taxonomy and classification of the subfamily Lepturinae. University of California publications in Entomology 69. 138 pp.
- Mayer, K.E., & W.F. Laudenslayer. 1988. A guide to wildlife habitats of California. California Department of Forestry and Fire Protection, Sacramento, California. 166 pp.
- McKernan, R. & M. Whitfield. 1994. Willow Flycatcher Pages 206-270 In: G. Thelander And M. Crabtree (editors). *Life on the edge: a guide to California's endangered Natural resources: wildlife*. BioSystems Books, Santa Cruz, California. 550 pp.
- Morrell, S.H. 1972. Life history of the San Joaquin Kit Fox. *California Fish and Wildlife* 58: 162-174.
- Moyle, P.B. 1976. *Inland fishes of California*. University of California Press, Berkeley. 405 pp.

- Moyle, P.B., R. Yoshoyama, J.E. Williams, & E.D. Wikramanayake. 1995. Fish Species of Special Concern in California. Second Edition. California Department of Fish and Wildlife. Rancho Cordova. 272 pp.
- Nature Serve Explorer: An online encyclopedia of life. 2006. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>.
- O'Farell, T.P. 1983. San Joaquin Kit Fox Recovery Plan. Prepared for the U. S. Fish and Wildlife Service, Portland, Oregon.
- Orloff, S.G. 1989. Survey techniques for the San Joaquin Kit Fox (*Vulpes macrotis mutica*). Endangered Wildlife Technical Workshop. San Joaquin Valley Chapter of The Wildlife Society. 17 pp.
- Prichard, D. 1994. Riparian Area Management: Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas. Technical Reference 1737-11. U. S. Bureau of Land Management, Denver, Colorado.
- Reeder, J.R. 1982. Systematics of the tribe Orcuttieae (Gramineae) and the description of a new segregate genus, *Tuctoria*. American Journal of Botany 69: 1082-1095.
- Remsen, J.V., Jr. 1978. Bird species of special concern in California: An annotated list of declining or vulnerable bird species. California Department of Fish and Wildlife, Administrative Report No. 78-1. Sacramento, California. 53 pp.
- Robbins, C.S., B. Bruun, & H.S. Zim. 1966. A Guide to Field Identification: Birds of North America. Western Publishing Company, Inc., Racine, Wisconsin.
- Sawyer, J.O. & T.K. Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, California.
- Selander, R.B. 1960. Bionomics, Systematics, and Phylogeny of *Lytta*, a Genus of Blister Beetle (Coleoptera: Meloidae). Illinois Biol. Monographs, No. 28. The University of Illinois Press, Urbana, Illinois. 295 pp.
- Skinner, M.W. & B.M. Pavlik. 1994. California Native Plant Society Inventory of Rare and Endangered Vascular Plants of California. 5th edition. Special Publication No. 1. California Native Plant Society. Sacramento, California.
- Stebbins, R.C. 1966. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston, Massachusetts. 279 pp.
- Stone, R.D., et al. 1988. Status survey of the Grass Tribe Orcuttieae in the Central Valley of California. Prepared by Biosystems Analysis under contract to the U. S. Fish and Wildlife Service, Sacramento, California.

- Swainson's Hawk Technical Advisory Committee. 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley.
- Taylor, D.W., & W.B. Davilla. 1986. Status survey of three plants endemic to the San Joaquin Valley and adjacent areas, California. Prepared by Biosystems Analysis under contract to the U. S. Fish and Wildlife Service, Sacramento, California.
- Thelander, C.G. & M. Crabtree. 1994. Life on the edge: a guide to California's endangered natural resources: wildlife. BioSystems Books, Santa Cruz, California. 550 p.
- U. S. Army Corps of Engineers. 1987. Wetlands Delineation Manual. Technical Report Y-87-1, Department of the Army, Washington, D. C.
- U. S. Fish and Wildlife Service. 1984. Valley Elderberry Longhorn Beetle Recovery Plan. Region 1, Portland, Oregon. 62 pp.
- U. S. Fish and Wildlife Service. 1985. Revised Blunt-nosed Leopard Lizard Recovery Plan. Region 1, Portland, Oregon. 85 pp.
- U. S. Fish and Wildlife Service. 1985. Draft Habitat Suitability Index Model: Western Spadefoot Toad. Sacramento, California.
- U. S. Fish and Wildlife Service. 1988. Habitat Suitability Index Model: Red-legged Frog. Sacramento, California.
- U. S. Fish and Wildlife Service. 1989. Habitat Suitability Index Model: California Tiger Salamander. Sacramento, California.
- U. S. Fish and Wildlife Service. 1993. Endangered and threatened wildlife and plants: Determination of threatened status for the Giant Garter Snake. Federal Register Vol. 58, No. 201.
- U. S. Fish and Wildlife Service. 1998. Recovery plan for upland species of the San Joaquin Valley, California. Region 1, Portland, Oregon. 319 pp.
- U. S. Fish and Wildlife Service. 1999. Conservation guidelines for the Valley Elderberry Longhorn Beetle. Sacramento, California.
- U. S. Fish and Wildlife Service. 1999. Draft recovery plan for the Giant Garter Snake (*Thamnophis gigas*). Region 1, Portland, Oregon. 192 pp.
- U. S. Fish and Wildlife Service. 2002. Recovery plans for the California Red-legged Frog (*Rana aurora draytonii*). Region 1, Portland, Oregon. 173 pp.
- U. S. Fish and Wildlife Service. 2017. Species Lists for Counties and Quadrangle Maps. Electronic Data Base. Sacramento, California.



- U. S. Fish and Wildlife Service. 2011. Standard Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance. Sacramento, California.
- Verner, J. & A.S. Boss. 1980. California wildlife and their habitats: western Sierra Nevada. Gen. Tech. Rep. PSW-37, 439 p., illus. Pacific Southwest Forest and Range Experiment Station, Forest Service, U. S. Department of Agriculture, Berkeley, California.
- Whitson, T.D. et al. 1996. Weeds of the West. Pioneer of Jackson Hole, Jackson, Wyoming.
- Williams, D.F. 1986. Mammalian Species of Special Concern in California. California Department of Fish and Wildlife, Administrative Report 86-1, Sacramento, California. 112 pp.
- Williams, D.F., S. Byrne, & T.A. Rado. 1987. Endangered and Sensitive Species of the San Joaquin Valley, California: A Conference on Their Biology, Management, and Conservation. California State College, Bakersfield.
- Williams, D. & D.J. Germano. 1992. Recovery of endangered kangaroo rats in the San Joaquin Valley, California. Trans. Western Sec. The Wildl. Soc. 28: 93-106.
- Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, & M. White. 1990. California's wildlife. Volume I-amphibians and reptiles. Volume II-birds. Volume III-mammals. Electronic Version. California Department of Fish and Wildlife. Sacramento, California.

# **APPENDIX A**

## Project Location Maps

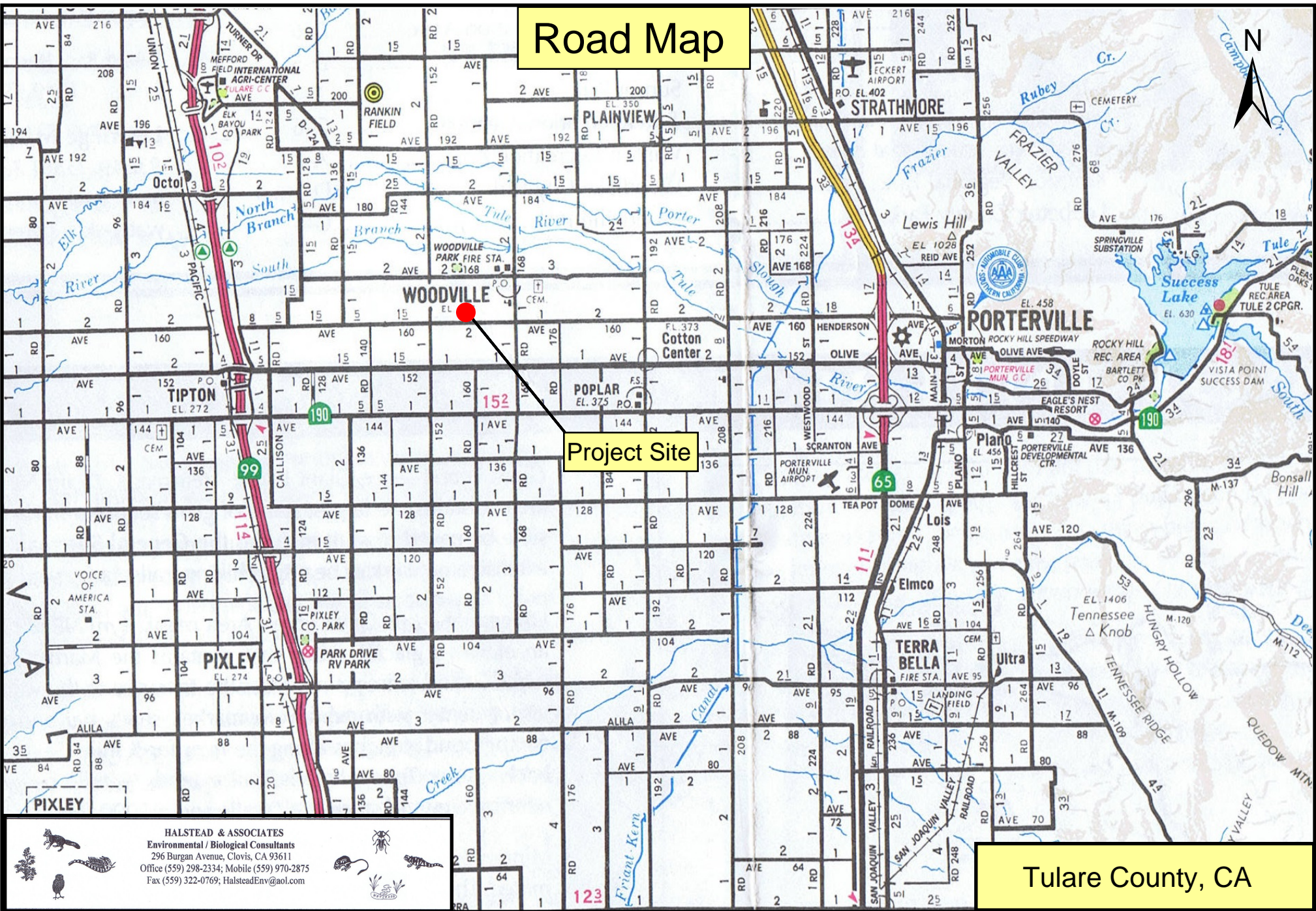


# Road Map

Project Site

Tulare County, CA

HALSTEAD & ASSOCIATES  
Environmental / Biological Consultants  
296 Burgan Avenue, Clovis, CA 93611  
Office (559) 298-2334; Mobile (559) 970-2875  
Fax (559) 322-0769; HalsteadEnv@aol.com





# Topographic Map



Project Site


Proposed Water Pipelines

Proposed Well Site


T 22 S

R 26 E

Woodville Quadrangle Map



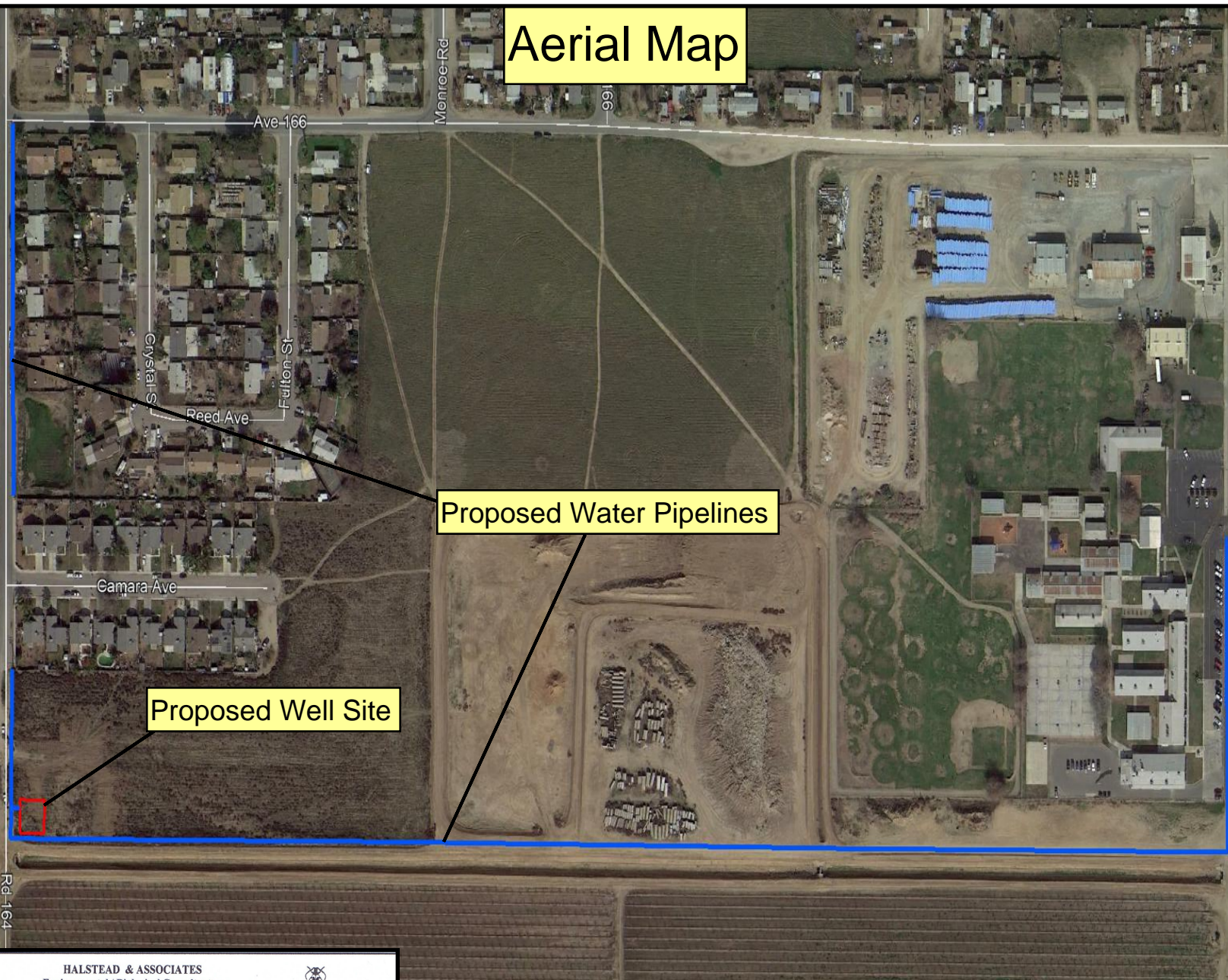
**HALSTEAD & ASSOCIATES**  
Environmental / Biological Consultants  
296 Burgan Avenue, Clovis, CA 93611  
Office (559) 298-2334; Mobile (559) 970-2875  
Fax (559) 322-0769; HalsteadEnv@aol.com



Tulare County, CA



# Aerial Map



Proposed Well Site

Proposed Water Pipelines

Tulare County, CA



HALSTEAD & ASSOCIATES  
Environmental / Biological Consultants  
296 Burgan Avenue, Clovis, CA 93611  
Office (559) 298-2334; Mobile (559) 970-2875  
Fax (559) 322-0769; HalsteadEnv@aol.com



# **APPENDIX B**

## Habitat Map



# Habitat Map

N

Ave-168

Almond Orchard

Oak Ave

Avenue 167

Hudson Ave

Monroe Rd

Rd-166

Woodville

Walnut Orchard

Proposed Water Pipeline

Residences

Previously Discd/  
Fallow

Lower Tule River  
Irrigation

Reed Ave

Residences

Camara Ave

Previously Discd/  
Fallow

Storage  
Yard

Woodville  
Elementary  
School

Woodville Rd

Fruit Packing Plant

Proposed Well Site

Almond Orchard

Corn Field

Plum Orchard

Corn Field

Proposed Water Pipeline



HALSTEAD & ASSOCIATES  
Environmental / Biological Consultants  
296 Burgan Avenue, Clovis, CA 93611  
Office (559) 298-2334; Mobile (559) 970-2875  
Fax (559) 322-0769; HalsteadEnv@aol.com



Tulare County, CA

# **APPENDIX C**

Natural Diversity Data Base Search:

Woodville Quadrangle Map





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



Query Criteria: Quad<span style='color:Red'> IS </span>(Woodville (3611912))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>San Joaquin kit fox</b> <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
<b>Tipton kangaroo rat</b> <i>Dipodomys nitratooides nitratooides</i>	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
<b>tricolored blackbird</b> <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC

Record Count: 3



Multiple Occurrences per Page  
California Department of Fish and Wildlife  
California Natural Diversity Database



Query Criteria: Quad> IS <(Woodville (3611912))

<b><i>Agelaius tricolor</i></b>			<b>Element Code:</b> ABPBXB0020				
tricolored blackbird							
<b>Listing Status:</b>	<b>Federal:</b>	None	<b>CNDDB Element Ranks:</b>	<b>Global:</b>	G2G3		
	<b>State:</b>	Threatened		<b>State:</b>	S1S2		
	<b>Other:</b>	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern					
<b>Habitat:</b>	<b>General:</b>	HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.					
	<b>Micro:</b>	REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.					
<b>Occurrence No.</b>	687	<b>Map Index:</b>	97599	<b>EO Index:</b>	98925	<b>Element Last Seen:</b>	1935-05-13
<b>Occ. Rank:</b>	None			<b>Presence:</b>	Possibly Extirpated	<b>Site Last Seen:</b>	1935-05-13
<b>Occ. Type:</b>	Natural/Native occurrence			<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>	2015-12-09
<b>Quad Summary:</b>	Sausalito School (3511982), Pixley (3511983), Alpaugh (3511984), Woodville (3611912), Tipton (3611913)						
<b>County Summary:</b>	Tulare						
<b>Lat/Long:</b>	35.96858 / -119.29177			<b>Accuracy:</b>	5 miles		
<b>UTM:</b>	Zone-11 N3982891 E293349			<b>Elevation (ft):</b>	271		
<b>PLSS:</b>	T22S, R25E, Sec. 32 (M)			<b>Acres:</b>	49683.0		
<b>Location:</b>	PIXLEY.						
<b>Detailed Location:</b>	LOCATION DESCRIBED ONLY AS "NEAR PIXLEY."						
<b>Ecological:</b>	HABITAT DESCRIBED AS CATTAIL MARSH. COLONY PRESUMED EXTIRPATED BY BEEDY (1991). SLOUGHS IN THE VICINITY THAT LIKELY HAD CATTAILS ARE NO LONGER VISIBLE IN AERIAL IMAGERY.						
<b>General:</b>	A BREEDING COLONY COMPOSED OF ABOUT 1,500 NESTS OBSERVED ON 13 MAY 1935 (NEFF 1937).						
<b>Owner/Manager:</b>	UNKNOWN						



Multiple Occurrences per Page  
California Department of Fish and Wildlife  
California Natural Diversity Database



***Dipodomys nitratoides nitratoides***

Element Code: AMAFD03152

Tipton kangaroo rat

**Listing Status:** **Federal:** Endangered

**CNDDDB Element Ranks:** **Global:** G3T1T2

**State:** Endangered

**State:** S1S2

**Other:** IUCN\_VU-Vulnerable

**Habitat:** **General:** SALTBRUSH SCRUB AND SINK SCRUB COMMUNITIES IN THE TULARE LAKE BASIN OF THE SOUTHERN SAN JOAQUIN VALLEY.

**Micro:** NEEDS SOFT FRIABLE SOILS WHICH ESCAPE SEASONAL FLOODING. DIGS BURROWS IN ELEVATED SOIL MOUNDS AT BASES OF SHRUBS.

<b>Occurrence No.</b>	101	<b>Map Index:</b>	65358	<b>EO Index:</b>	65437	<b>Element Last Seen:</b>	1943-10-25
<b>Occ. Rank:</b>	Unknown	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>		1943-10-25	
<b>Occ. Type:</b>	Natural/Native occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>		2006-07-24	

**Quad Summary:** Woodville (3611912), Cairns Corner (3611922)

**County Summary:** Tulare

<b>Lat/Long:</b>	36.12399 / -119.22034	<b>Accuracy:</b>	1 mile
<b>UTM:</b>	Zone-11 N3999984 E300183	<b>Elevation (ft):</b>	320
<b>PLSS:</b>	T21S, R25E, Sec. 01 (M)	<b>Acres:</b>	0.0

**Location:** 7 MI NE OF TIPTON.

**Detailed Location:** HISTORICAL MUSEUM RECORD; EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS ABOUT 2.43 AIR MI NNW OF WOODVILLE, JUST SOUTHWEST OF INTERSECTION OF BLISS LANE AND STRATHMORE RD.

**Ecological:**

**General:** 1 FEMALE SPECIMEN COLLECTED ON 25 OCT 1943 AT "7 MI NE OF TIPTON" BY SETH B. BENSON AND DONALD T. TAPPE. MVZ #101160.

**Owner/Manager:** UNKNOWN

***Vulpes macrotis mutica***

Element Code: AMAJA03041

San Joaquin kit fox

**Listing Status:** **Federal:** Endangered

**CNDDDB Element Ranks:** **Global:** G4T2

**State:** Threatened

**State:** S2

**Other:**

**Habitat:** **General:** ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

**Micro:** NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.



Multiple Occurrences per Page  
California Department of Fish and Wildlife  
California Natural Diversity Database



<b>Occurrence No.</b>	627	<b>Map Index:</b>	67387	<b>EO Index:</b>	67555	<b>Element Last Seen:</b>	1973-XX-XX
<b>Occ. Rank:</b>	Unknown	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>	1973-XX-XX		
<b>Occ. Type:</b>	Natural/Native occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>	2007-01-17		

**Quad Summary:** Woodville (3611912), Tipton (3611913), Cairns Corner (3611922), Tulare (3611923)

**County Summary:** Tulare

<b>Lat/Long:</b>	36.11984 / -119.25002	<b>Accuracy:</b>	2/5 mile
<b>UTM:</b>	Zone-11 N3999585 E297501	<b>Elevation (ft):</b>	300
<b>PLSS:</b>	T21S, R25E, Sec. 11 (M)	<b>Acres:</b>	0.0

**Location:** ABOUT 3.3 MI NW OF WOODVILLE, S OF INTERSECTION OF AVE 184 & ROAD 144.

**Detailed Location:**

**Ecological:**

**General:** SIGHTING, ROAD KILL OR DEN PRIOR TO 1972. KIT FOX OBSERVATION(S) IN 1973.

**Owner/Manager:** UNKNOWN

<b>Occurrence No.</b>	629	<b>Map Index:</b>	67390	<b>EO Index:</b>	67561	<b>Element Last Seen:</b>	1972-XX-XX
<b>Occ. Rank:</b>	Unknown	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>	1972-XX-XX		
<b>Occ. Type:</b>	Natural/Native occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>	2007-01-17		

**Quad Summary:** Woodville (3611912)

**County Summary:** Tulare

<b>Lat/Long:</b>	36.07606 / -119.22343	<b>Accuracy:</b>	2/5 mile
<b>UTM:</b>	Zone-11 N3994673 E299784	<b>Elevation (ft):</b>	320
<b>PLSS:</b>	T21S, R25E, Sec. 25 (M)	<b>Acres:</b>	0.0

**Location:** ABOUT 1.7 MI SW OF WOODVILLE, SE OF INTERSECTION OF ROAD 152 AND AVE 160.

**Detailed Location:**

**Ecological:**

**General:** 1 ACTIVE DEN OBSERVED IN 1970. SIGHTING, ROAD KILL OR DEN PRIOR TO 1972.

**Owner/Manager:** UNKNOWN

<b>Occurrence No.</b>	900	<b>Map Index:</b>	67777	<b>EO Index:</b>	67929	<b>Element Last Seen:</b>	1971-XX-XX
<b>Occ. Rank:</b>	Unknown	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>	1971-XX-XX		
<b>Occ. Type:</b>	Natural/Native occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>	2007-02-20		

**Quad Summary:** Woodville (3611912)

**County Summary:** Tulare

<b>Lat/Long:</b>	36.05151 / -119.21638	<b>Accuracy:</b>	2/5 mile
<b>UTM:</b>	Zone-11 N3991935 E300357	<b>Elevation (ft):</b>	330
<b>PLSS:</b>	T21S, R25E, Sec. 36 (M)	<b>Acres:</b>	0.0

**Location:** ABOUT 3 MI SSW OF WOODVILLE, 0.9 ROAD MI E OF LAIRDS CORNER ON HWY 190.

**Detailed Location:**

**Ecological:**

**General:** SIGHTING, ROAD KILL OR DEN PRIOR TO 1972.

**Owner/Manager:** UNKNOWN

# **APPENDIX D**

Natural Diversity Data Base Search:

8 Surrounding Quadrangle Maps



# Selected Elements by Common Name

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Query Criteria:** Quad<span style='color:Red'> IS </span>(Tulare (3611923)<span style='color:Red'> OR </span>Cairns Corner (3611922)<span style='color:Red'> OR </span>Lindsay (3611921)<span style='color:Red'> OR </span>Tipton (3611913)<span style='color:Red'> OR </span>Porterville (3611911)<span style='color:Red'> OR </span>Pixley (3511983)<span style='color:Red'> OR </span>Sausalito School (3511982)<span style='color:Red'> OR </span>Ducor (3511981))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>American badger</b> <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
<b>An andrenid bee</b> <i>Andrena macswaini</i>	IIHYM35130	None	None	G2	S2	
<b>Bakersfield legless lizard</b> <i>Anniella grinnelli</i>	ARACC01050	None	None	G2G3	S2S3	SSC
<b>blunt-nosed leopard lizard</b> <i>Gambelia sila</i>	ARACF07010	Endangered	Endangered	G1	S1	FP
<b>brittlescale</b> <i>Atriplex depressa</i>	PDCHE042L0	None	None	G2	S2	1B.2
<b>burrowing owl</b> <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
<b>calico monkeyflower</b> <i>Diplacus pictus</i>	PDSCR1B240	None	None	G2	S2	1B.2
<b>California alkali grass</b> <i>Puccinellia simplex</i>	PMPOA53110	None	None	G3	S2	1B.2
<b>California jewelflower</b> <i>Caulanthus californicus</i>	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
<b>coast horned lizard</b> <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G3G4	S3S4	SSC
<b>Crotch bumble bee</b> <i>Bombus crotchii</i>	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<b>Earlimart orache</b> <i>Atriplex cordulata</i> var. <i>erecticaulis</i>	PDCHE042V0	None	None	G3T1	S1	1B.2
<b>hoary bat</b> <i>Lasiurus cinereus</i>	AMACC05030	None	None	G5	S4	
<b>Hopping's blister beetle</b> <i>Lytta hoppingi</i>	IICOL4C010	None	None	G1G2	S1S2	
<b>Kern mallow</b> <i>Eremalche parryi</i> ssp. <i>kernensis</i>	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
<b>lesser saltscale</b> <i>Atriplex minuscula</i>	PDCHE042M0	None	None	G2	S2	1B.1
<b>loggerhead shrike</b> <i>Lanius ludovicianus</i>	ABPBR01030	None	None	G4	S4	SSC
<b>Lost Hills crownscale</b> <i>Atriplex coronata</i> var. <i>vallicola</i>	PDCHE04250	None	None	G4T2	S2	1B.2
<b>molestan blister beetle</b> <i>Lytta molesta</i>	IICOL4C030	None	None	G2	S2	



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Morrison's blister beetle</b> <i>Lytta morrisoni</i>	IICOL4C040	None	None	G1G2	S1S2	
<b>northern California legless lizard</b> <i>Anniella pulchra</i>	ARACC01020	None	None	G3	S3	SSC
<b>Northern Claypan Vernal Pool</b> <i>Northern Claypan Vernal Pool</i>	CTT44120CA	None	None	G1	S1.1	
<b>recurved larkspur</b> <i>Delphinium recurvatum</i>	PDRAN0B1J0	None	None	G2?	S2?	1B.2
<b>San Joaquin adobe sunburst</b> <i>Pseudobahia peirsonii</i>	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
<b>San Joaquin coachwhip</b> <i>Masticophis flagellum ruddocki</i>	ARADB21021	None	None	G5T2T3	S2?	SSC
<b>San Joaquin kit fox</b> <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
<b>San Joaquin Pocket Mouse</b> <i>Perognathus inornatus</i>	AMAFD01060	None	None	G2G3	S2S3	
<b>San Joaquin tiger beetle</b> <i>Cicindela tranquebarica ssp.</i>	IICOL0220E	None	None	G5T1	S1	
<b>San Joaquin woollythreads</b> <i>Monolopia congdonii</i>	PDASTA8010	Endangered	None	G2	S2	1B.2
<b>Springville clarkia</b> <i>Clarkia springvillensis</i>	PDONA05120	Threatened	Endangered	G2	S2	1B.2
<b>striped adobe-lily</b> <i>Fritillaria striata</i>	PMLIL0V0K0	None	Threatened	G1	S1	1B.1
<b>subtle orache</b> <i>Atriplex subtilis</i>	PDCHE042T0	None	None	G1	S1	1B.2
<b>Swainson's hawk</b> <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
<b>Tipton kangaroo rat</b> <i>Dipodomys nitratoideis nitratoideis</i>	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
<b>tricolored blackbird</b> <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<b>vernal pool fairy shrimp</b> <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
<b>vernal pool smallscale</b> <i>Atriplex persistens</i>	PDCHE042P0	None	None	G2	S2	1B.2
<b>western spadefoot</b> <i>Spea hammondi</i>	AAABF02020	None	None	G3	S3	SSC

Record Count: 38

**Detailed CNDDDB Record and Locale Data  
for the Occurrences of Sensitive Species and Habitats  
in the 8 Quadrangle Maps Surrounding the  
Project Site is Available at Halstead & Associates**

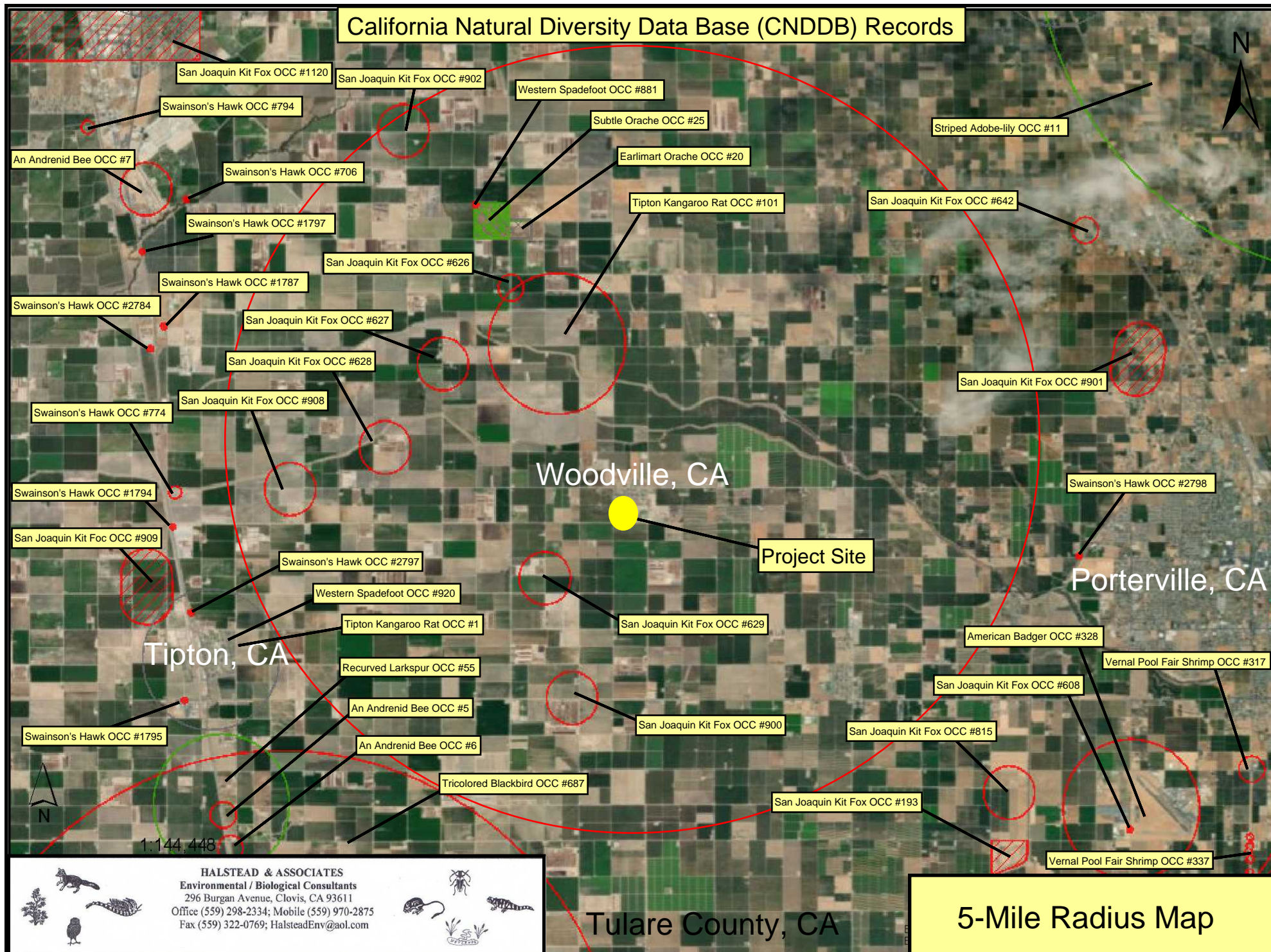


# **APPENDIX E**

Natural Diversity Data Base Search:

5-Mile Radius Map

# California Natural Diversity Data Base (CNDDB) Records



# **APPENDIX F**

## **USFWS Species List**



## 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:

September 05, 2019

Consultation Code: 08ESMF00-2019-SLI-2940

Event Code: 08ESMF00-2019-E-09422

Project Name: Well Replacement Project - Woodville Public Utility District

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) 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 Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

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 ECOS-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 ECOS-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:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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 Tracking Number 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

Consultation Code: 08ESMF00-2019-SLI-2940

Event Code: 08ESMF00-2019-E-09422

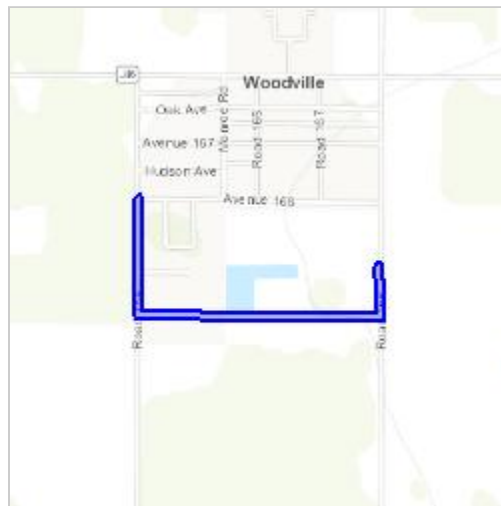
Project Name: Well Replacement Project - Woodville Public Utility District

Project Type: WATER SUPPLY / DELIVERY

Project Description: The project is the installation of a new water well, the connection of new underground water pipelines to existing pipelines for the Woodville Public Utility District (WPUD).

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/36.089294523204245N119.20559763908388W>



Counties: Tulare, CA

---



## Endangered Species Act Species

There is a total of 7 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 Fisheries<sup>1</sup>, 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.

## Mammals

NAME	STATUS
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2873">https://ecos.fws.gov/ecp/species/2873</a>	Endangered
Tipton Kangaroo Rat <i>Dipodomys nitratoides nitratoides</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7247">https://ecos.fws.gov/ecp/species/7247</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/40/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/40/office/11420.pdf</a>	Endangered

## Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/625">https://ecos.fws.gov/ecp/species/625</a>	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

---

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened

## Critical habitats

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

---

# **APPENDIX G**

Special Status Plants in the Vicinity of the Project

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
San Benito thornmint <i>Acanthomintha obovata obovata</i>	--	--	4.2	Chaparral, cismontane woodland, valley and foothill grassland. Heavy clay, alkaline, serpentine soils.	April-July	395-1,500 m	No Effects
Forked fiddleneck <i>Amsinckia vernicosa furcata</i>	FSC	--	4.2	Cismontane woodland, valley and foothill grassland.	February-May	50-1,000 m	No Effects
Oval-leaved Snapdragon <i>Antirrhinum ovatum</i>	--	--	4.2	Chaparral, cismontane woodland, valley and foothill grassland.	March-June	185-800m	No Effects
Bodie Hills rock cress <i>Arabis bodiensis</i>	FSC	--	1B.3	Alpine boulder and rock field, Great Basin scrub, pinyon and juniper woodland, and possibly subalpine coniferous forest.	June-August	2,195-3,530 m	No Effects
Kern Plateau milk-vetch <i>Astragalus lentiginosus kernensis</i>	FSC	--	1B.2	Subalpine coniferous forest. Meadows and seeps.	June-July	2,240-2,750 m	No Effects
Raven's milk-vetch <i>Astragalus monoensis ravenii</i>	FSC	--	1B	Alpine boulder and rock field, upper montane coniferous forest. Gravelly soils.	July-September	3,355-3,460 m	No Effects
Heartscale <i>Atriplex cordulata</i>	FSC	--	1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland. Sandy/saline or alkaline soils.	April-October	1-375 m	No Effects
Brittlescale <i>Atriplex depressa</i>	FSC	--	1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Alkaline or clay soils.	May-October	1-320 m	No Effects
Earlimart orache <i>Atriplex erecticaulis</i>	FSC	--	1B.2	Valley and foothill grassland in southern San Joaquin valley. Alkaline soils.	August-September	40 –100 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Lesser saltscale <i>Atriplex minuscule</i>	FSC	--	1B.1	Chenopod scrub, playas, valley and foothill grassland. Alkaline or sandy soils.	May-October	15-200 m	No Effects
Vernal pool saltbush <i>Atriplex persistens</i>	FSC	--	1B	Vernal pools. Alkaline soils.	June-October	10-115 m	No Effects
Subtle orache <i>Atriplex submillis</i>	FSC	--	1B.2	Valley and foothill grasslands.	June-October	40-100 m	No Effects
Lost Hills saltbush (=crownscale) <i>Atriplex vallicola</i>	FSC	--	1B.2	Chenopod scrub, valley and foothill grasslands Vernal pools in alkaline soils.	April-August	50-63 m	No Effects
Scalloped moonwort <i>Botrychium crenulatum</i>	FSC	--	2.2	Lower montane conifer forest. Meadows, seeps, marshes, and swamps.	June-September	1,500-3,280 m	No Effects
Slender moonwort (=narrowleaf grapefern) <i>Botrychium lineare</i>	FC	--	1B.3	Upper montane coniferous forest. Known in CA from a single small occurrence near Piute Pass.	Unknown	2,600 m	No Effects
Kaweah brodiaea <i>Brodiaea insignis</i>	FSC	SE	1B.2	Cismontane woodland, valley and foothill grassland.	April-June	150-1,400 m	No Effects
Alkali Mariposa lily <i>Calochortus striatus</i>	FSC	--	1B.2	Chaparral, chenopod scrub, Mojavean desert scrub. Meadows and seeps.	April-June	70-1,595 m	No Effects
Shirley Meadows Star-tulip <i>Calochortus westonii</i>	FSC	--	1B.2	Lower montane coniferous forest. Meadows and seeps.	May-June	1,500-2,105 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Mariposa pussy-paws <i>Calyptridium pulchellum</i>	FT	--	1B.2	Chaparral, cismontane woodland. Sandy or gravelly, granitic soils.	April-August	400-1,220 m	No Effects
South Coast Range morning-glory <i>Calystegia collina venusta</i>	FSC	--	4.3	Chaparral, cismontane woodland, valley and foothill grasslands. Serpentine or sedimentary.	April-June	425-1,130 m	No Effects
San Benito evening-primrose <i>Camissonia benitensis</i>	FT	--	1B.1	Chaparral, cismontane woodland. Serpentine alluvium, clay or gravelly soils.	May-June	600-1,280 m	No Effects
Mono Hot Springs evening-primrose <i>Camissonia sierrae alticola</i>	FSC	--	1B.2	Lower montane coniferous forest, upper montane coniferous forest. Granitic, gravel and sand pan soils.	May-August	1,340-2,410 m	No Effects
Carpenteria (=tree-anemone) <i>Carpenteria californica</i>	--	ST	1B.2	Chaparral, cismontane Woodland. Usually granitic soils.	May-July	340-1,340 m	No Effects
Succulent owl's-clover <i>Castilleja campestris succulenta</i>	FT	SE	1B.2	Vernal pools (often with acidic soils).	April-May	50-750 m	No Effects
Lemmon's jewelflower <i>Caulanthus coulteri lemmonii</i>	FSC	--	1B.2	Pinyon and juniper woodland, valley and foothill grasslands.	March-May	80-1,220 m	No Effects
California jewelflower <i>Caulanthus californicus</i>	FE	SE	1B.1	Chenopod scrub, pinyon and juniper woodland, valley and foothill grasslands. Sandy soils.	February-May	70-1,000 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Hoover's spurge <i>Chamaesyce hooveri</i>	FT	--	1B.2	Vernal pools.	July-August	25-250 m	No Effects
San Benito spineflower <i>Chorizanthe biloba immemora</i>	FSC	--	1B.2	Chaparral, cismontane woodland.	May-September	600-800 m	No Effects
Slough thistle <i>Cirsium crassicaule</i>	FSC	--	1B.1	Chenopod scrub, riparian scrub. Marshes and sloughs.	May – August	3 – 1,000 m	No Effects
Small's southern clarkia <i>Clarkia australis</i>	--	--	1B.2	Cismontane woodland and Lower montane coniferous forest.	May – August	800-2,075 m	No Effects
Springville clarkia <i>Clarkia springvillensis</i>	FT	SE	1B.2	Chaparral, cismontane woodland, valley and foothill grasslands. Granitic soils.	May-July	245-1,220 m	No Effects
Flaming trumpet <i>Collomia rawsoniana</i>	--	--	1B.2	Lower montane coniferous forest, meadows, seeps, and riparian forest.	July-August	780-2,200 m	No Effects
Palmate-bracted bird's-beak <i>Cordylanthus palmatus</i>	FE	SE	1B.1	Chenopod scrub, valley and foothill grasslands. Alkaline soils.	May-October	5-155 m	No Effects
Fresno County bird's-beak <i>Cordylanthus tenuis barbatus</i>	FSC	--	4.3	Lower montane coniferous forest.	July-August	1,300-2,000 m	No Effects
Piute cypress <i>Cupressus arizonica nevadensis</i>	FSC	--	1B.2	Closed-cone conifer forest, chaparral, cismontane woodland, pinyon and juniper woodland.	March-July	720-1,830 m	No Effects
Ewan's larkspur <i>Delphinium hansenii ewaniamum</i>	FSC	--	4.2	Cismontane woodland, valley and foothill grasslands. Rocky soils.	March-May	60-600 m	No Effects
Recurved larkspur <i>Delphinium recurvatum</i>	FSC	--	1B.2	Chenopod scrub, cismontane woodland, valley and foothill grasslands. Alkaline soils.	March-May	3-750 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Pierpoint Springs <i>Dudleya cymosa costafolia</i>	FSC	--	1B.2	Chaparral, cismontane woodland. Carbonate soils.	May-July	1,435-1600 m	No Effects
Hoover's eriastrum (=wooly-star) <i>Eriastrum hooveri</i>	--	--	4.2	Chenopod scrub, valley and foothill grasslands. Clay soils.	March-September	100-550 m	No Effects
Kern River daisy <i>Erigeron multiceps</i>	FSC	--	1B.2	Upper montane coniferous forest (openings). Meadows and seeps.	June-September	1,500-2,500 m	No Effects
Cottony Buckwheat <i>Eriogonum gossypinum</i>	FSC	--	4.2	Chenopod scrub, valley and foothill grasslands. Clay soils.	March-September	100-550 m	No Effects
Mouse buckwheat <i>Eriogonum nudum murinum</i>	FSC	--	1B.2	Chaparral, cismontane woodland, valley and foothill grasslands. Sandy soils.	June – November	365-1,130 m	No Effects
Twisselmann's buckwheat <i>Eriogonum temblorense</i>	--	--	1B.2	Valley and foothill grassland.	March-June	100-300m	No Effects
Twisselmann's buckwheat <i>Eriogonum twisselmannii</i>	FSC	Rare	1B.2	Upper montane conifer forest. Granitic soils.	July-September	2,375-2,805 m	No Effects
Spiny-sealed coyote-thistle (=button-celery) <i>Eryngium spinosepalum</i>	FSC	--	1B.2	Valley and foothill grassland. Vernal pools.	April-May	100-255 m	No Effects
Kaweah fawnlily <i>Erythronium pusaterii</i>	FSC	--	1B.3	Subalpine conifer forest. Meadows and seeps.	May-July	2,100-2,775 m	No Effects
Stinkbells <i>Fritillaria agrestis</i>	FSC	--	4.2	Chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grasslands. Clay, sometimes serpentinite soils.	March-June	10-1,555 m	No Effects



## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Striped adobe-lily <i>Fritillaria striata</i>	FSC	ST	1B.1	Cismontane woodland, valley and foothill grasslands. Clay soils.	February-April	135-1,455 m	No Effects
Serpentine bedstraw <i>Galium andrewsii gatense</i>	FSC	--	4.2	Chaparral, cismontane woodland, lower montane coniferous forest. Serpentinite, rocky soils.	April-July	150-1,450 m	No Effects
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	--	SE	1B.2	Marshes and swamps (lake margins), vernal pools. Clay soils.	April-August	10-2,375 m	No Effects
Vernal Barley <i>Hordeum intercedens</i>	--	--	3.2	Coastal dunes, coastal scrub, valley and foothill grasslands (saline flats and depressions), vernal pools.	March - June	5 –1000 m	No Effects
Kern Plateau horkelia <i>Horkelia tularensis</i>	FSC	--	1B.3	Upper montane conifer forest. Rocky soils.	July-August	2,300-2,875 m	No Effects
Short-leaved hulsea <i>Hulsea brevifolia</i>	FSC	--	1B.2	Montane conifer forest. Granitic or volcanic, gravelly or sandy soils.	May-August	1,500-3,200 m	No Effects
Field ivesia <i>Ivesia campestris</i>	FSC	--	1B.2	Subalpine conifer forest upper montane conifer forest. Meadows and seeps.	June-August	1,975-3,350 m	No Effects
Delta tule-pea <i>Lathyrus jepsonii jepsonii</i>	FSC	--	1B.2	Marshes and swamps (freshwater and brackish).	May-September	0-4 m	No Effects
Rayless layia <i>Layia discoidea</i>	FSC	--	1B.1	Chaparral, cismontane woodland, lower montane coniferous forest. Serpentinite soils, talus and alluvial terraces.	May	795-1,585 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Pale-yellow layia <i>Layia heterotricha</i>	FSC	--	1B.1	Cismontane woodland, pinyon and juniper woodland, valley and foothill grasslands. Alkaline or clay soils.	March-June	300-1,600 m	No Effects
Munz's tidy-tips <i>Layia munzii</i>	FSC	--	1B.2	Chenopod scrub, valley and foothill grasslands. Alkaline and clay soils.	March-April	150-700 m	No Effects
Madera linanthus <i>Linanthus serrulatus</i>	FSC	--	1B.2	Cismontane woodland, lower montane conifer forest.	April-May	300-1,300 m	No Effects
Panoche pepper-grass <i>Lepidium jaredii album</i>	FSC	--	1B.2	Valley and foothill grasslands. Alluvial fans and washes.	February-June	185-275 m	No Effects
Yosemite lewisia <i>Lewisia disepala</i>	FSC	--	1B.2	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. Granitic, sandy soils.	March-June	1,340-3,500 m	No Effects
Long-petaled lewisia <i>Lewisia longipetala</i>	FSC	--	1B.3	Alpine boulder and rock field, subalpine coniferous forest. Mesic, rocky, granitic soils.	April-July	2,500-2,925 m	No Effects
Orange lupine <i>Lupinus citrinus citrinus</i>	FSC	--	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Granitic soils.	April-July	380-1,700 m	No Effects
Father Crowley's lupine <i>Lupinus padre-crowleyi</i>	FSC	Rare	1B.2	Great Basin scrub, riparian forest, riparian scrub, upper montane conifer forest. Decomposing granitic soils.	July-August	3,200-4,000 m	No Effects
Showy madia <i>Madia radiata</i>	FSC	--	1B.1	Cismontane woodland, valley and foothill grasslands.	March-May	25-900 m	No Effects
Slender-stalked monkeyflower <i>Mimulus gracilipes</i>	FSC	--	1B.2	Lower edge of Yellow Pine forest, on thin granitic soil in crack in large granite rock face.	April-June	500-1300 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Kaweah monkeyflower <i>Mimulus norrisii</i>	FSC	--	1B.3	Chaparral, cismontane woodland. Carbonate, rocky soils.	March-May	365-1,300 m	No Effects
Calico monkeyflower <i>Mimulus pictus</i>	FSC	--	1B.2	Cismontane woodland. Granitic soils.	March-May	100-1,300 m	No Effects
Pansy monkeyflower <i>Mimulus pulchellus</i>	--	--	1B.2	Lower montane coniferous forest, Meadows and seeps, vernal mesic, often disturbed areas, and clay.	April-July	600-2,000 m	No Effects
San Joaquin woollythreads <i>Monolopia (=Lembertia) congdonii</i>	FE	--	1B.2	Chenopod scrub, valley and foothill grasslands. Sandy soils.	February-May	60-800 m	No Effects
Flax-like monardella <i>Monardella linoides oblonga</i>	FSC	--	1B.3	Montane conifer forest, pinyon and juniper woodland.	June-August	900-2,470 m	No Effects
Little mousetail <i>Myosurus minimus apus</i>	FSC	--	3.1	Valley and foothill grasslands. Vernal pools with alkaline soils.	March-June	20-640 m	No Effects
Piute Mountains navarretia <i>Navarretia setiloba</i>	FSC	--	1B.1	Cismontane woodland, pinyon and juniper woodland, valley and foothill grasslands. Clay or gravelly loam soils.	April-June	305-2,100 m	No Effects
Twisselmann's nemacladus <i>Nemacladus twisselmannii</i>	FSC	Rare	1B.2	Upper montane conifer forest. Sandy or rocky granitic soils.	July	2,240-2,450 m	No Effects
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	FT	SE	1B.1	Vernal pools.	April-September	30-755m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Hairy Orcutt grass <i>Orcuttia pilosa</i>	FE	SE	1B.1	Vernal pools.	May-September	55-200 m	No Effects
Purple mountain-parsley <i>Oreonana purpurascens</i>	FSC	--	1B.2	Subalpine conifer forest, upper montane conifer forest. Metamorphic soils.	May-June	2,395-2,865 m	No Effects
Charlotte's phacelia <i>Phacelia nashiana</i>	FSC	--	1B.2	Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Granitic, sandy soils.	March-June	600-2,200 m	No Effects
Nine Mile Canyon phacelia <i>Phacelia novemmillensis</i>	FSC	--	1B.2	Cismontane woodland, pinyon and juniper woodland, upper montane conifer forest. Sandy or gravelly soils.	May-June	1,645-2,640 m	No Effects
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	FE	SE	1B.1	Cismontane woodland, valley and foothill grasslands. Clay soils.	March-April	15-50 mm	No Effects
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	FT	SE	1B.1	Cismontane woodland, valley and foothill grasslands. Adobe clay soils.	March-April	90-800 m	No Effects
Aromatic canyon gooseberry <i>Ribes menziesii ixoderme</i>	FSC	--	1B.2	Chaparral, cismontane woodland.	April	610-1,160 m	No Effects
Sequoia gooseberry <i>Ribes tulareense</i>	FSC	--	1B.3	Montane conifer forest	May	1,500-2,075 m	No Effects
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--	--	1B.2	Marshes and swamps (assorted shallow freshwater).	May-October	<610 m	No Effects
Keck's checker-mallow (=checkerbloom) <i>Sidalcea keckii</i>	FE	--	1B.1	Cismontane woodland, valley and foothill grasslands. Serpentine and clay soils.	April-May	120-425 m	No Effects
Tehipite Valley jewelflower <i>Streptanthus fenestratus</i>	FSC	--	1B.3	Lower montane coniferous forest, upper montane coniferous forest.	April-July	1,065-1,750 m	No Effects

## Special-Status Plant Species

Species	Status			Habitat Description	Bloom Period	Elevational Range	Effects Determination
	Federal	State	CNPS				
Alpine streptanthus (=jewel-flower) <i>Streptanthus gracilis</i>	FSC	--	1B.3	Subalpine coniferous forest, upper montane coniferous forest. Granitic rocky soils.	July-August	2,800-3,500 m	No Effects
Mason's Neststraw <i>Stylocline masonii</i>	--	--	1B.1	Chenopod scrub, pinyon-juniper woodland.	March-June	100-1200m	No Effects
Parasol (=Bolander's) clover <i>Trifolium bolanderi</i>	FSC	--	1B.2	Montane coniferous forest. Meadows and seeps.	June-August	2,075-2,600 m	No Effects
Greene's tuctoria (=Orcutt grass) <i>Tuctoria greenei</i>	FE	Rare	1B.1	Vernal pools.	May-September	30-1,070 m	No Effects
King's gold <i>Twisselmannia californica</i>	FCS	--	1B.1	Chaparral scrub. Subalkaline sandy clay soil.	March	65 m	No Effects

### Federal status:

- FE Listed as endangered under the Federal Endangered Species Act
- FT Listed as threatened under the Federal Endangered Species Act
- PE Proposed for listing as endangered under the Federal Endangered Species Act
- PT Proposed for listing as threatened under the Federal Endangered Species Act
- FC Candidate species for listing under the Federal Endangered Species Act
- FSC Species of concern as identified by the U.S. Fish and Wildlife Service

### State Status:

- SE Listed as endangered under the California Endangered Species Act
- ST Listed as threatened under the California Endangered Species Act
- CSC Species of concern as identified by the California Department of Fish and Game
- Rare Species identified as rare by the California Department of Fish and Game

**California Native Plant Society Status (CNPS 2003):**

- 1A Plant species that are presumed extinct in California
  - 1B Plant species that are rare, threatened, or endangered in California and elsewhere.
  - 2 Plant species that are rare, threatened, or endangered in California, but are more common elsewhere
  - 3 Plant species that lack the necessary information to assign them to a listing status
  - 4 Plant species that have a limited distribution or that are infrequent throughout a broader area in California
- Threat Extension Codes: .1 – Seriously endangered in CA. .2 – Fairly endangered in CA. .3 - Not very endangered in CA.

# **APPENDIX H**

Special Status Wildlife in the Vicinity of the Project

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Invertebrates				
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	--	Endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains of California, in static rain-filled pools. Inhabits small, clear-water sandstone-depression pools and grassed swales, earth slumps or basalt-flow depression pools.	No Effects
Midvalley fairy shrimp <i>Branchinecta mesovallensis</i>	FSC	--	Midvalley Fairy Shrimp is a newly described species that inhabits pools in only a handful of counties within the Great Central Valley including Sacramento, Solano, Merced, Madera, San Joaquin, Fresno and Contra Costa counties. A small, soft-bodied crustacean that lives in vernal pools (seasonal wetlands that fill with water during fall and winter rains).	No Effects
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	--	Inhabits seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	No Effects
California linderiella <i>Linderiella occidentalis</i>	FE	--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in pools has very low alkalinity, conductivity and total dissolved solids.	No Effects
Conservancy Fairy Shrimp <i>Branchinecta Conservation</i>	FE	--	Endemic to the grasslands of the northern two-thirds of the Central Valley. Found in large, turbid vernal pools and vernal swales.	No Effects
Dry Creek cliff strider bug <i>Oravelia pege</i>	FSC	--	Known only from Dry Creek, an intermittent creek in Fresno County at an elevation of about 1,000 feet. Found in cracks and crevices of sheer rocky cliffs moistened by seeping water.	No Effects
Ciervo aegilian scarab beetle <i>Aegialia concinna</i>	FSC	--	The Ciervo aegilian scarab beetle has been associated with Delta and inland dune systems and sandy substrates; however, plant associations specific to this species have not been reported.	No Effects



## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
San Joaquin tiger beetle <i>Cicindela tranquebarica</i> ssp.	FSC	--	Distribution is limited to vernal pools, alkali wetlands and scalds, and nearby open areas from Merced to Fresno County (possibly Kings County).	No Effects
San Joaquin dune beetle <i>Coelus gracilis</i>	FSC	--	Inhabits sites with sandy substrates in fossil dunes along the western edge of the San Joaquin Valley.	No Effects
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	--	Occurs only in the Central Valley of California, in association with blue elderberry ( <i>Sambucus mexicana</i> ). Prefers to lay eggs in elderberry stems 2 to 8 inches in diameter; some preference shown for “stressed” elderberries.	No Effects
Wooly hydroporus diving beetle <i>Hydroporus hirsutus</i>	FSC	--	Sierra Nevada at 12,600 ft. elevation, aquatic habitat, Mount Goethe (Fresno County).	No Effects
Hopping’s blister beetle <i>Lytta hoppingi</i>	FSC	--	Foothills at the southern end of the Central Valley.	No Effects
Molestan blister beetle <i>Lytta molesta</i>	FSC	--	Inhabits the Central Valley of California from Contra Costa to Kern and Tulare counties. Flowers and foliage of various plants in grasslands.	No Effects
Moesta blister beetle <i>Lytta moesta</i>	FSC	--	Grasslands of the Central Valley of California and foothills of the Sierra Nevada in Fresno and Tulare Counties.	No Effects
Morrison’s blister beetle <i>Lytta morrisoni</i>	FSC	--	Valley and foothill grasslands of the Central Valley of California.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Boharts's blue butterfly <i>Philotiella speciosa bohartorum</i>	FSC	--	Known from the foothills of the southern Sierra Nevada near Briceburg, Mariposa County. Associated with pink spineflower (probable food).	No Effects
San Emigdio blue butterfly <i>Plebulina emigdonis</i>	FSC	--	Found in desert canyons and along riverbeds on the southernmost edge of the San Joaquin Valley. Host plant is <i>Atriplex canescens</i> .	No Effects
Denning's cryptic caddisfly <i>Cryptochia denningi</i>	FSC	--	Small, cold springs in the Sierra Nevada at high elevations.	No Effects
Kings Canyon cryptochian caddisfly <i>Cryptochia excella</i>	FSC	--	Small, cold springs in the Sierra Nevada at 6,400 ft. elevation.	No Effects
Doyen's trigonoscute dune weevil <i>Trigonoscute doyenii</i>	FSC	--	Inhabits fossil dunes along the western edge of the San Joaquin Valley.	No Effects
<b>Fish</b>				
River lamprey <i>Lampetra ayresi</i>	FSC	CSC	Ranges from the Sacramento-San Joaquin Delta region northward; however, it appears most numerous in the Sacramento and San Joaquin Rivers.	No Effects
Kern brook lamprey <i>Lampetra hubbsi</i>	FSC	CSC	Inhabits waters of the San Joaquin River system and the Kern River. Spawning occurs in gravel-bottomed areas, the ammocoetes utilize muddy-bottomed areas to burrow and feed.	No Effects
Pacific lamprey <i>Lampetra tridentata</i>	FSC	--	Most coastal streams and rivers of California.	No Effects
Green sturgeon <i>Acipenser medirostris</i>	FSC	CSC	Primarily marine, this species seldom migrates inland beyond the estuaries of large rivers.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Lahontan cutthroat trout <i>Oncorhynchus clarki henshawi</i>	FT	--	Occurs in a wide variety of cold waters, including large alkaline lakes, small mountain lakes, major rivers and small tributaries. Range includes Truckee, Carson, Walker River, Donner Creek and Pyramid, Walker, Donner, Independence and Summit Lakes.	No Effects
Paiute cutthroat trout <i>Oncorhynchus clarki seleniris</i>	FT	--	Inhabits cool, well oxygenated waters; cannot tolerate presence of other salmonids; requires clean gravel for spawning.	No Effects
Central Valley steelhead <i>Oncorhynchus mykiss</i>	FT	--	Critical habitat was designated to include all river reaches accessible to listed steelhead in the Sacramento and San Joaquin Rivers and tributaries in California. The river reaches and estuarine areas of the Sacramento-San Joaquin delta are also included.	No Effects
Little Kern golden trout <i>Oncorhynchus mykiss whitei</i>	FT	--	Native to the Little Kern River in Tulare County. Found in clear, cold mountain streams and lakes at 5,000 to 9,000 feet elevation.	No Effects
Volcano Creek golden trout <i>Oncorhynchus mykiss aquabonita</i>	FSC	CSC	Native to the Kern Plateau in wide, shallow and exposed streams with little riparian vegetation. Water is clear and usually cold, but summer temperatures can vary from 3 to 22 degrees Celsius.	No Effects
Kern River golden trout <i>Oncorhynchus mykiss gilberti</i>	FSC	CSC	Endemic to the upper Kern River and its tributaries. Cool, clear, fast flowing streams where riffles are abundant.	No Effects
Hardhead <i>Mylopharodon conocephalus</i>	--	CSC	Low to mid-elevation streams in the Sacramento – San Joaquin drainage, deep pools with sand – gravel – boulder bottoms and slow water velocity.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Delta smelt <i>Hypomesus transpacificus</i>	FT	ST	This species inhabits the Sacramento-San Joaquin Delta and seasonally inhabits the Suisun Bay, Carquinez Strait and San Pablo Bay. This species is seldom found at salinities above 10 PPT, and is most often found at salinities below 2 PPT. Spawning appears to occur in side channels and sloughs in the middle reaches of the Delta.	No Effects
Longfin smelt <i>Spirinchus thaleichthys</i>	FSC	CSC	This species prefers moderately saline water and may be found in major bays and estuaries from San Francisco Bay northward. It lives in the bay waters throughout the summer moving into the lower reaches of the rivers that flow into these bays in the fall to spawn.	No Effects
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	FT	CSC	Inhabits slow moving river sections and dead end sloughs. Requires flooded vegetation for spawning adults and foraging for young. Endemic to lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes.	No Effects
Sacramento River Spring Chinook <i>Onchorhynchus tshawytscha</i>	ST	FT	Critical habitat was designated to include all river reaches accessible to listed salmon in the Sacramento and San Joaquin Rivers and tributaries in California. The river reaches and estuarine areas of the Sacramento-San Joaquin delta are also included.	No Effects
Winter Run Chinook <i>Onchorhynchus tshawytscha</i>	SE	FE	Critical habitat was designated to include all river reaches accessible to listed salmon in the Sacramento and San Joaquin Rivers and tributaries in California. The river reaches and estuarine areas of the Sacramento-San Joaquin delta are also included.	No Effects
<b>Amphibians</b>				
California tiger salamander <i>Ambystoma californiense</i>	FSC	CSC	Annual grasslands and grassy understory of valley-foothill hardwood habitats in central and northern California. Requires underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	No Effects
Mount Lyell salamander <i>Hydromantes platycephalus</i>	FSC	CSC	Inhabits rock fields in mixed conifer, red fir, lodgepole pine and subalpine communities. Utilizes rock fissures, seeps, shade, and low-growing plants. Elevational range extends from 4,000 to 11,600 feet.	No Effects
Kern Canyon Slender Salamander <i>Batrachoseps simatus</i>	FT	--	Found only in Kern River Canyon, Tulare and Kern Counties. Occurs in blue oak savannah: prefers digger pine-oak types at 1,000-4,000 feet.	No Effects
Western spadefoot toad <i>Spea (=Scaphiopus) hammondi</i>	FSC	CSC	Occurs primarily in grassland environments, but can also be found in valley-foothill hardwood woodlands. Shallow, temporary ponds are used for breeding and egg-laying.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Yosemite toad <i>Bufo canorus</i>	FSC	CSC	Inhabits wet meadows in the central Sierra Nevada between elevations of 6,400 and 11,300 feet.	No Effects
California red-legged frog <i>Rana aurora draytonii</i>	FT	CSC	Lowlands and foothills in a variety of aquatic, riparian and upland environments near permanent sources of water.	No Effects
Foothill yellow-legged frog <i>Rana boylei</i>	FSC	CSC	Partially shaded, shallow streams with riffles and rocky substrates in a variety of vegetation communities.	No Effects
Mountain yellow-legged frog <i>Rana muscosa</i>	FSC	CSC	Inhabits ponds, lakes and streams associated with montane, riparian, lodgepole pine, subalpine conifer and wet meadow communities.	No Effects
<b>Reptiles</b>				
Western pond turtle <i>Clemmys marmorata</i>	FSC	CSC	Includes both subspecies ( <i>C. m. pallida</i> and <i>C. m. marmorata</i> ). Aquatic habitat of ponds, marshes, streams, and irrigation ditches that have abundant emergent or riparian vegetation.	No Effects
Blunt-nosed leopard lizard <i>Gambelia sila</i>	FE	--	Associated with <i>Atriplex</i> and other alkali sink shrubs. Densities of the species may be correlated with high number of unused small mammal burrows.	No Effects
California horned lizard <i>Phrynosoma coronatum frontale</i>	FSC	CSC	Found in a variety of habitats including scrubland, grassland, coniferous forest, and broadleaf forests. Common in lowlands along sandy washes where low shrubs provide cover.	No Effects
Silvery legless lizard <i>Anniella pulchra pulchra</i>	FSC	CSC	Typically occurs in sandy or loose loamy soils under sparse vegetation. Soil moisture is essential, with the species showing a preference towards soils with high moisture content.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
San Joaquin coachwhip (=whipsnake) <i>Masticophis flagellum ruddock</i>	FSC	CSC	Inhabits open, dry environments with little or no tree cover. Found in valley grassland and saltbrush scrub in the San Joaquin Valley. Mammal burrows are used for refuge and oviposition sites.	No Effects
Giant garter snake <i>Thamnophis gigas</i>	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches.	No Effects
<b>Birds</b>				
Common loon <i>Gavia immer</i>	FSC	CSC	Estuarine and subtidal marine habitats along the coast. Uncommon on large deep lakes in valleys and foothills throughout the state.	No Effects
Double crested cormorant <i>Phalacrocorax auritus</i>	None	CSC	Colonial nester on coastal cliffs and offshore islands. Fairly widespread during migration, foraging in fresh emergent wetlands, wet meadows and irrigated or flooded pastures and croplands.	No Effects
American bittern <i>Botaurus lentiginosus</i>	FSC	--	Inhabits fresh or saline emergent wetlands.	No Effects
Western least bittern <i>Ixobrychus exilis hesperis</i>	FSC	CSC	Inhabits large, fresh emergent wetlands with dense emergent vegetation such as cattails and tules.	No Effects
Snowy egret <i>Egretta thula</i>	MB	--	Inhabits fresh and saline emergent wetlands coastal estuaries, ponds, slow-moving rivers, irrigation ditches and wet fields.	No Effects
Great Blue Heron <i>Ardea herodias</i>	--	--	Inhabits fresh and saline emergent wetlands coastal estuaries, ponds, slow-moving rivers, irrigation ditches and wet fields.	No Effects
White faced ibis <i>Plegadis chihi</i>	FSC/MN BMC	CSC	Breeds in dense, fresh emergent wetlands; however, this species has declined in California and no longer breeds regularly. Fairly widespread during migration, foraging in fresh emergent wetlands, wet meadows and irrigated or flooded pastures and croplands.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Aleutian Canada goose <i>Branta canadensis leucoparia</i>	FT	--	The Central Valley is the main wintering ground of this subspecies. Typically forages in fields near their roosting areas (lakes and ponds).	No Effects
California condor <i>Gymnogyps californianus</i>	FE	SE/CFP	Requires vast expanses of open savannah, grasslands, and foothill chaparral with cliffs, large trees and snags for roosting and nesting.	No Effects
White-tailed kite <i>Elanus leucurus</i>	FSC	FP	Low rolling foothills/valley margins with scattered oaks and river bottomlands or marshes adjacent to deciduous woodland. Open grasslands, meadows or marshes are utilized for foraging. Isolated, dense-topped trees in close proximity to foraging areas are used for nesting and perching.	No Effects
Bald eagle <i>Haliaeetus leucocephalus</i>	FT	SE/CFP	Breeds and roosts in remote coniferous forest in close proximity to a river, stream lake, reservoir, marsh or other large wetland areas.	No Effects
Golden Eagle <i>Aquila chrysaetos</i>	--	CSC	Found in annual grassland to above timberline forest habitats. Favors grass/forb, shrub/sapling, and open-canopied young woodlands of blue oak. Requires cliffs or large live or dead trees for nesting.	No Effects
Northern goshawk <i>Accipiter gentilis</i>	FSC	CSC	Breeds and forages in mature stands of coniferous, mixed and deciduous forest.	No Effects
Swainson's hawk <i>Buteo swainsoni</i> (nesting)	--	ST	Breeds in stands of sparse juniper-sage flats, riparian areas and in oak savannahs. Requires adjacent suitable foraging habit such as grasslands, alfalfa or grain fields supporting rodent populations.	No Effects
Cooper's Hawk <i>Accipiter cooperi</i>	--	CSC	Breeds from digger pine-oak up to ponderosa pine and black oak woodland zone; prefers dense stands of live oaks or riparian sites. In winter, found in a variety of wooded habitats.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Sharp-shinned Hawk <i>Accipiter striatus</i>	--	CSC	Breeds in pole to mature tree stages of ponderosa pine, black oak, riparian deciduous, mixed-conifer, and Jeffrey pine types. Moves downslope for fall, winter, and spring periods as far as blue oak savannah, occasionally even into annual grasslands for feeding.	No Effects
Ferruginous hawk <i>Buteo regalis</i>	FSC	CSC	A winter migrant that inhabits grasslands, prairies and brushy open country.	No Effects
American peregrine falcon <i>Falco peregrinus anatum</i>	D	SE	Inhabits open country, breeding near rivers, wetlands, lakes or other aquatic features, nests on cliffs, banks, dunes, mounds and human-made structures.	No Effects
Prairie falcon <i>Falco mexicanus</i>	--	CSC	Ranges from annual grasslands through alpine meadows. Primarily associated with perennial grasslands, lodgepole pine of varying canopy closures, and alpine meadows. Requires open terrain for foraging and cliffs for nesting	No Effects
Greater sandhill crane <i>Grus canadensis tabida</i>	--	ST	In summer this species is found in wet meadow, shallow lacustrine and fresh emergent wetland habitats. It winters primarily in Sacramento and San Joaquin valleys from Tehama Co. south to Kings Co. where it inhabits annual and perennial grasslands, moist croplands with rice or corn stubble and open emergent wetlands.	No Effects
Mountain plover <i>Charadrius montanus</i>	FPT	CSC	Short grass plains, low rolling grass hills, freshly plowed agricultural fields and newly sprouting grain fields. Often associated with short vegetation and bare ground.	No Effects
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i>	FT	CSC	Beaches and dry mud or salt flats; sand margins of rivers, lakes, and ponds.	No Effects
Long-billed curlew <i>Numenius americanus</i>	FSC	CSC	Uncommon to locally very common as a winter visitant from early July to early April along most of the California coast, and in the Central and Imperial valleys. Preferred winter habitats include large coastal estuaries, upland herbaceous areas and croplands.	No Effects



## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Black tern <i>Chlidonias niger</i>	FSC	CSC	Commonly inhabits bays, salt ponds, river mouths and pelagic waters during spring and fall migrations. Restricted to freshwater environments while breeding.	No Effects
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FSC	CSC	An inhabitant of riparian forests in broad, lower flood-bottoms of larger river systems. Possibly extirpated from the area.	No Effects
Short-eared owl <i>Asio flammeus</i>	FSC	CSC	Open areas, such as annual and perennial grasslands, prairies, meadows, irrigated lands and fresh emergent wetlands.	No Effects
California Spotted Owl <i>Strix occidentalis occidentalis</i>	FSC	CSC	Typically breeds in stands of mixed coniferous forest containing a mixture of tree sizes with usually at least two canopy layers, and a total canopy coverage in excess of seventy percent (may be as low as thirty percent at high elevations). In Southern California, usually associated with oak and oak-conifer communities.	No Effects
Flammulated owl <i>Otus flammeolus</i>	FSC	--	Breeds in conifer habitats of the Sierra Nevada from ponderosa pine type up to red fir forests. Nest in cavities. Special requirements are yellow pine or black oak in nesting habitat	No Effects
Western burrowing owl <i>Athene cunicularia hypugaea</i>	FSC	CSC	Burrow sites occur in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester dependent upon burrowing mammals, most notably, the California ground squirrel.	No Effects
Great Gray Owl <i>Strix nebulosa</i>	--	SE	Breeds in mixed-conifer and red fir forests; prefers dense stands bordering meadows.	No Effects
Vaux's swift <i>Chaetura vauxi</i>	FSC	CSC	Prefers redwood and Douglas-fir communities; nests are typically placed in large hollow trees and snags. Forages high in the air over most communities; however, shows an apparent preference for foraging above rivers and lakes.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Black swift <i>Cypseloides niger</i>	FSC	CSC	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and on sea-bluffs above the surf.	No Effects
Costa's hummingbird <i>Calypte costae</i>	FSC	--	Most prevalent in southern California, but does breed locally along the western edge of the San Joaquin Valley up to Santa Clara County. Inhabits primarily arid environments, including costal scrub, desert scrub, desert wash, lower-elevation chaparral and edges of desert and valley foothill riparian.	No Effects
Rufous hummingbird <i>Selasphorus rufus</i>	FSC	--	Found in a wide variety of habitats with nectar producing flowers. Uses valley foothill hardwood, valley foothill hardwood coniferous, riparian and various chaparral habitats.	No Effects
Lewis' woodpecker <i>Melanerpes lewis</i>	FSC	--	An uncommon, local winter resident, inhabiting oak savannas, and open deciduous and conifer environments. Breeds locally along the eastern slopes of the Coast Ranges.	No Effects
Nuttall's woodpecker <i>Picoides nuttallii</i>	FSC	--	Most often found in riparian vegetation bordered by or mixed with oaks. Prefers oaks for foraging and oaks for nesting. Nests in snags.	No Effects
White-headed woodpecker <i>Picoides albolarvatus</i>	FSC	--	Found in conifer forest in the Sierra Nevada from ponderosa pine type up to rid fir type. Prefers areas with large trees providing 40 to 70 percent canopy coverage. Nests in snags	No Effects
Red-breasted sapsucker <i>Sphyrapicus ruber</i>	FSC MNBMC	--	Breeds in timbered stands of low to intermediate density in ponderosa pine, black oak, riparian deciduous, and mixed-conifer types. Prefers to nest in deciduous trees along water courses.	No Effects
Oak titmouse <i>Baeolophus inornatus</i>	FSC	--	Breeds in wooded sites from blue oak savannah up to ponderosa pine and black oak woodland types. Nests in oak cavities.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
American dipper <i>Cinclus mexicanus</i>	FSC	--	Confined to flowing, rocky streams and rivers, but occasionally forages along alpine lakeshores. Nests in recess or on ledge, usually within 3 to 6 feet of stream surface on inaccessible rock wall, log, or bridge.	No Effects
Olive-sided flycatcher <i>Contopus cooperi</i>	FSC	--	A summer resident that utilizes a wide variety of forest and woodland habitats. Mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir and lodgepole pine are preferred nesting habitats.	No Effects
Little willow flycatcher <i>Empidonax traillii brewsteri</i>	--	SE	A spring and fall migrant at lower elevations, primarily in riparian habitats from central/coastal California north. Previously bred throughout much of the lowland and montane portions of its range. Breeding is now primarily limited to the Sierra Nevada and Cascade Ranges.	No Effects
Loggerhead shrike <i>Lanius ludovicianus</i>	FSC	CSC	Inhabits open areas with sparse shrubs, trees and other perches.	No Effects
Bank swallow <i>Riparia riparia</i>	--	ST	A colonial nesting species, nests primarily in riparian and other lowland habitats. Vertical banks/cliffs composed of fine textured/sandy soils near streams, rivers, lakes or the ocean are required to excavate nesting hole.	No Effects
San Joaquin LeConte's thrasher <i>Toxostoma lecontei macmillanorum</i>	FSC	CSC	Primarily inhabits desert scrub, alkali desert scrub, desert succulent shrub and open desert wash communities. Rarely recorded north of Inyo and Kern counties since the 1950's.	No Effects
California thrasher <i>Toxostoma redivivum</i>	FSC	--	A common resident of foothills and lowlands in cismontane California. Occupies moderate to dense chaparral habitats, and to a lesser extent, thickets in young or open valley foothill riparian habitat.	No Effects
Hermit warbler <i>Dendroica occidentalis</i>	FSC	--	A summer visitor and migrant, breeds in mature ponderosa pine, montane hardwood-conifer, mixed conifer, redwood, Douglas fir, red fir and Jeffery pine communities.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Grasshopper sparrow <i>Ammodramus savannarum</i>	FSC	--	A summer resident, occurring in dry, dense grasslands, containing a variety of grass, tall forbs and scattered shrubs.	No Effects
Brewer's sparrow <i>Spizella breweri</i>	FSC	--	Breeds in extensive shrub stands with moderate canopy coverage. Most commonly associated with sagebrush.	No Effects
Tricolored blackbird <i>Agelaius tricolor</i>	FSC	CSC	Inhabits dense cattail marshes, marshy meadows and rangeland. A highly colonial species, it is most numerous in the Central Valley and the vicinity of California.	No Effects
Lawrence's goldfinch <i>Carduelis lawrencei</i>	FSC	--	Inhabits valley foothill hardwood, valley foothill hardwood-conifer and chaparral communities. Breeds in open oak, or other arid woodland, and chaparral communities in close proximity to water.	No Effects
Bell's sage sparrow <i>Amphispiza belli belli</i>	FSC	CSC	Nests in chaparral dominated by fairly dense stands of chamise. Found in Coastal sage scrub in south of range.	No Effects
<b>Mammals</b>				
Mt. Lyell shrew <i>Sorex lyelli</i>	FSC	CSC	Very little is known about this species: all records are from the vicinity of Mt. Lyell. This species appears to favor riparian areas and other moist situations.	No Effects
Pale Townsend's big eared bat <i>Corynorhinus townsendii pallescens</i>	FSC	CSC/BLM Sensitive	Inhabits a wide variety of environments, but most common in mesic sites. Roosting, maternity and hibernacula sites free from human disturbance are required.	No Effects
Pacific western big-eared bat <i>Corynorhinus townsendii townsendii</i>	FSC	CSC/BLM Sensitive	Occupies the humid, coastal regions of northern and central California in a wide variety of habitats. Roosts in caves, buildings and mine tunnels. This species is highly sensitive to human disturbance at roosting, maternity and hibernacula sites.	No Effects
Spotted bat <i>Euderma maculatum</i>	FSC	CSC/BLM Sensitive	Occurs in a variety of environments, ranging from deserts and grasslands to mixed conifer forests; roosts in rock crevices along cliffs or caves.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Small-footed myotis bat <i>Myotis ciliolabrum</i>	FSC	BLM Sensitive	Inhabits relatively arid wooded and brushy uplands in close proximity to water from sea level to about 8,900 feet. Maternity colonies may occur in buildings, caves and mines.	No Effects
Long-eared myotis bat <i>Myotis evotis</i>	FSC	BLM Sensitive	May be found in a variety of brush, woodland and forest communities from sea level to about 9,000 feet; shows a preference toward coniferous woodlands and forests. Nursery colonies located in buildings, crevices, spaces under bark and in snags; night roosting in caves.	No Effects
Fringed myotis bat <i>Myotis thysanodes</i>	FSC	BLM Sensitive	May be found in a variety of environments; valley and foothill hardwood, hardwood-conifer and pinyon-juniper woodland provide optimal habitat. Maternity colonies and roosts located in caves, mines, buildings and crevices.	No Effects
Long-legged myotis bat <i>Myotis volans</i>	FSC	BLM Sensitive	This species is most commonly associated with woodland and forest communities above 4,000 feet. However, may also forage in chaparral, coastal scrub, Great Basin shrub habitats and in early successional stages of woodlands and forests. Occurrence records range from sea level to 11,400 feet. Roosts in rock crevices, buildings, under tree bark, in snags, mines and caves.	No Effects
Pallid Bat <i>Antrozous pallidus</i>	--	CSC	Common in arid and semiarid areas at relatively low elevations throughout the western Sierra Nevada. Found from annual grasslands through mixed-conifer forests. Requires caves, crevices, or buildings for roosting and breeding colonies.	No Effects
Yuma myotis bat <i>Myotis yumanensis</i>	FSC	CSC/BLM Sensitive	Optimal environments include open forests and woodlands in proximity to bodies of water used for foraging; maternity colonies in caves, mines, crevices and buildings.	No Effects
Greater western mastiff-bat <i>Eumops perotis californicus</i>	FSC	CSC	This species utilizes a wide range of open habitats including coastal scrub, annual grasslands and conifer woodlands. Roosts in or on buildings, crevices in cliffs, trees and in tunnels.	No Effects
San Joaquin (=Nelson's) antelope squirrel <i>Ammospermophilus nelsoni</i>	FSC	ST	This species inhabits the arid grassland, shrubland and alkali sink habitats of the San Joaquin Valley and adjacent foothills.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
Giant kangaroo rat <i>Dipodomys ingens</i>	FE	SE	Prefers fine sandy loam with sparse vegetation in native annual grasslands occurring along the southwestern edge of the San Joaquin Valley, to southwestern Kern County and northern Santa Barbara County.	No Effects
Short-nosed kangaroo rat <i>Dipodomys nitratooides brevinasis</i>	FSC	--	Inhabits grasslands with scattered shrubs, and desert-shrub associations on powdery soils.	No Effects
Fresno kangaroo rat <i>Dipodomys nitratooides exilis</i>	FE	SE	An inhabitant of alkali-sink open grassland environments in western Fresno County. Bare alkaline clay-based soils subject to seasonal inundation with more friable soil mounds around shrubs and grasses.	No Effects
Tipton kangaroo rat <i>Dipodomys nitratooides nitratooides</i>	FE	SE	Occurs in the arid-land (uncultivated) communities of the Tulare Basin valley floor. They occupy alluvial fan and floodplain soils, ranging from fine sands to clay-sized particles. Woody shrubs are usually sparsely scattered with low to moderate ground cover of grasses and forbs.	No Effects
San Joaquin pocket mouse <i>Perognathus inornatus inornatus</i>	FSC	--	Inhabits grasslands and blue oak savannas. Requires friable soils.	No Effects
Riparian (San Joaquin Valley) woodrat <i>Neotoma fuscipes riparia</i>	FE	CSC	Known from an area along the San Joaquin, Stanislaus and Tuolumne rivers in Stanislaus and San Joaquin Counties. An inhabitant of riparian communities containing a mixture of trees, brush and suitable nesting sites.	No Effects
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	FSC	CSC	Grasshopper mice are mainly found in the prairie and south-western desert areas.	No Effects
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	FSC	CSC	An inhabitant of hot, arid valleys and scrub deserts in the southern San Joaquin Valley	No Effects
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE	ST	Open, level areas with loose-textured soils are preferred. Inhabits a variety of communities including sagebrush scrub, alkali meadows, creosote bush scrub and valley grasslands.	No Effects
Sierra Nevada red fox <i>Vulpes vulpes necator</i>	FSC	ST	Inhabits a variety of communities from wet meadows to forested areas; prefers forests that are interspersed with meadows or alpine fell-fields. Dense vegetation and rocky areas provide cover and den sites.	No Effects

## Special-Status Wildlife Species

Species	Status		Habitat Association	Effects Determination
	Federal	State		
California wolverine <i>Gulo gulo luteus</i>	FSC	ST/CFP	Occurs in a variety of communities, including subalpine conifer, alpine dwarf-shrub, barren, mixed conifer and lodgepole pine forests at or near timberline. Typically associated with areas of low human disturbance.	No Effects
American (=Pine) marten <i>Martes americana</i>	FSC	--	Prefers multi-storied, mature mixed coniferous forests with high (>50 percent) canopy coverage, and an abundance of large snags and downed woody debris. Riparian corridors may be used for foraging and as travelways.	No Effects
Pacific fisher <i>Martes pennanti pacifica</i>	FSC	CSC	Prefers multi-storied, mature mixed coniferous forests with high (>50 percent) canopy coverage and an abundance of large snags and downed woody debris. Dense riparian corridors are utilized as dispersal corridors. Foraging often occurs in small (<2 acre) forest openings with significant ground cover.	No Effects
Sierra Nevada bighorn sheep <i>Ovis canadensis californiana</i>	FE	SE/CFP	Found only in the southern and central reaches of California's Sierra Nevada.	No Effects
American Badger <i>Taxidea taxus</i>	FSC	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with	No Effects
Hoary Bat <i>Lasiurus cinereus</i>	FSC	CSC	Prefers open habitats or habitat mosaics, with access to tree for cover & open areas or	No Effects

**Federal status:**

FE	Listed as endangered under the Federal Endangered Species Act
FT	Listed as threatened under the Federal Endangered Species Act
FPT	Proposed for listing as threatened under the Federal Endangered Species Act
FC	Candidate species for listing under the Federal Endangered Species Act
FSC	Species of concern as identified by the U.S. Fish and Wildlife Service
FD	Delisted in accordance with the Federal Endangered Species Act
MNBMC	Migratory Nongame Birds of Management Concern

**State Status:**

SE	Listed as endangered under the California Endangered Species Act
ST	Listed as threatened under the California Endangered Species Act
CSC	Species of concern as identified by the California Department of Fish and Game
CFP	Listed as fully protected by the California Fish and Game Code
Rare	Species identified as rare by the California Department of Fish and Game

**SENSITIVE PLANT COMMUNITIES:**

Southern Interior Cypress Forest  
Sycamore Alluvial Woodland  
Great Valley Valley Oak Riparian Forest  
Northern Claypan Vernal Pool  
Northern Hardpan Vernal Pool  
Central Valley Drainage Hardhead/Squawfish Stream  
Valley Saltbush Scrub  
Valley Sink Scrub  
Big Tree Forest  
Valley Sacaton Grassland



# **APPENDIX I**

Photographs of the Project Site



**Photographs of the Proposed New Well Site Area. Photos by H&A in September 2019.  
Woodville Public Utility District's Well Replacement Project near the City of Woodville (Tulare County, California).**





**Photographs of the Proposed New Water Pipeline Installation Areas. Photos by H&A in September 2019.  
Woodville Public Utility District's Well Replacement Project near the City of Woodville (Tulare County, California).**